

Appendix J
Transportation Impact Analysis

CLAREMONT MCKENNA COLLEGE ROBERTS CAMPUS SPORTS BOWL/ ROBERTS CAMPUS EAST: TRANSPORTATION IMPACT ANALYSIS CLAREMONT & UPLAND, CALIFORNIA

MAY 2024

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EXECUTIVE SUMMARY

Introduction

This Traffic Impact Analysis report addresses the potential traffic effects and circulation needs associated with the proposed development (hereinafter referred to as the Project) on the Claremont McKenna College Roberts Campus East (formerly known as the Claremont Colleges East Campus). The Project is a revision of a project previously approved for the site by the cities of Upland and Claremont in 2016. This Traffic Impact Analysis analyzes the Project in accordance with the Traffic Analysis – Memorandum of Understanding (MOU) dated February 14, 2024, with the cities of Claremont and Upland (Appendix J) and in compliance with the California Environmental Quality Act (CEQA) guidelines (California Code of Regulations, Title 14, Section 15000 and following).

The CEQA-related analysis was conducted in accordance with State of California Senate Bill 743 (Steinberg, 2013) (SB 743), which required a change in the CEQA guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of the CEQA transportation analysis shifted from vehicular delay, as measured by Level of Service (LOS) or similar measures of vehicular capacity or traffic congestion, to vehicle miles traveled (VMT). The CEQA-related analysis also includes evaluation of active transportation and transit (consistency with program, plan, ordinance or policy addressing the circulation system).

A non-CEQA transportation analysis of the Project was also conducted in accordance with the MOU and includes analysis of the anticipated LOS at the study intersections and roadway segments as per the City of Upland's Traffic Impact Analysis Guidelines (July 2020) and the City of Claremont's Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment (August 2020). The non-CEQA transportation analysis is not required for determination of potential CEQA impacts.

Project Description

The Claremont McKenna College Roberts Campus East (formerly known as the Claremont Colleges East Campus) (Project site) is approximately 74.44 acres of land that is bound by Foothill Boulevard on the north, Arrow Route (also known as Sixth Street in the City of Claremont) on the south, Monte Vista Avenue on the east, and Claremont Boulevard on the west.¹ The site is a Class III landfill for inert materials and was formerly used as a sand and gravel quarry. Landfill maintenance, and construction staging and construction-worker-related parking (providing when-needed support for campus construction activities) currently continue on the Project site. The site does not contain permanent structures except for a previously established archery range, which is not currently in use. The Project's primary objective is to provide for the construction of collegiate sports facilities, known as the Roberts Campus Sports Bowl. Those facilities will be used by students participating in Claremont McKenna College's collegiate athletic programs and are depicted in the Conceptual Site Plan as presented in Figure 2.1. Additional objectives include the following:

¹ The area within the approximately 74-acre Project site that is proposed for development consists of approximately 66.5 acres. The Project site also includes an approximately 0.4 acre area underneath and west of Claremont Boulevard where the proposed tunnel would be located. The approximately 7.6 acres at the southern end of the Project site are not proposed for development as part of the Project.

- Reclaim the Project site while minimizing environmental impacts;
- Enhance the visual quality of the site and neighborhood;
- Provide additional parking; and
- Provide improved and expanded sports facilities.

Project Study Area

This traffic report includes an analysis of twenty-nine (29) study intersections and eleven (11) study roadway segments that are located in the project vicinity, consistent with the MOU with the cities of Claremont and Upland. The study locations are listed below:

Study Intersections		Intersection Control Type
1	Base Line Rd & Indian Hill Blvd	Signalized
2	Base Line Rd & Mills Ave	Signalized
3	Base Line Rd & Monte Vista Ave/Padua Ave	Signalized
4	Base Line Rd & I-210 Ramps	Signalized
5	Claremont Blvd & Monte Vista Ave	Signalized
6	Foothill Blvd & Indian Hill Blvd	Signalized
7	Foothill Blvd & College Ave	Signalized
8	Foothill Blvd & Dartmouth Ave	Signalized
9	Foothill Blvd & Mills Ave	Signalized
10	Foothill Blvd & Claremont Blvd	Signalized
11	Foothill Blvd & Monte Vista Ave	Signalized
12*	Foothill Blvd & Central Ave	Signalized
13	6 th St & Indian Hill Blvd	Unsignalized
14	6 th St & College Ave	Unsignalized
15	6 th St & Mills Ave	Unsignalized
16	6 th St/Arrow Rt & Claremont Blvd	Signalized
17	Arrow Rt & Monte Vista Ave	Signalized
18	Harrison Ave/5 th St & Indian Hill Blvd	Signalized
19	1 st St & Indian Hill Blvd	Signalized
20	1 st St & College Ave	Unsignalized
21	1 st St & Claremont Blvd	Signalized
22	Arrow Hwy & Indian Hill Blvd	Signalized
23	Arrow Hwy & College Ave	Signalized
24	Arrow Hwy & Claremont Blvd/Mills Ave	Signalized
25	Claremont Blvd & 9 th St	Unsignalized (proposed signal)
26	Foothill Blvd & Project Dwy N	Unsignalized (proposed driveway)
27	Claremont Blvd & Project Dwy SW	Unsignalized (proposed driveway)
28	Monte Vista Ave & Project Dwy SE	Unsignalized
29	Monte Vista Ave & 1 st St/Richton St	Signalized

No.	Roadway Segments
1	Foothill Boulevard East of Monte Vista Avenue
2	Monte Vista Avenue south of Foothill Boulevard
3	Claremont Boulevard between Arrow and Foothill Boulevard
4	Arrow Route between College Park and Monte Vista Avenue
5	Huntington Drive East of Claremont Boulevard
6	6 th Street West of Mills Avenue
7	Arrow Route Between Claremont Boulevard and Apartment Driveway
8	9 th Street East of Mills Avenue
9	9 th Street West of Claremont Boulevard
10	Claremont Boulevard North of 9 th Street
11	Claremont Boulevard South of 6 th Street

Study Periods

AM and PM peak hour intersection capacity analyses for the twenty-nine (29) key study intersections (including four Project driveways) were conducted under the following scenarios:

- Existing Year 2023 Traffic Conditions (weekday)
- Existing Year 2023 Traffic Conditions (weekend)
- Opening Year 2027 Without Project Traffic Conditions (Weekday)
- Opening Year 2027 Without Project Traffic (weekend)
- Opening Year 2027 Plus Project Traffic Conditions (weekday)
- Opening Year 2027 Plus Project Traffic Conditions (weekend)
- Horizon Year 2045 Without Project Traffic Conditions (weekday)
- Horizon Year 2045 Without Project Traffic Conditions (weekend)
- Horizon Year 2045 Plus Project Traffic Conditions (weekday)
- Horizon Year 2045 Plus Project Traffic Conditions (weekend)

Project Trip Generation

- The “Weekday: Practice Day” trip forecasts result in 1 added Project trip during the weekday AM peak hour, and a total of 160 added vehicle trips during the weekday PM peak commuter hour. Over a 24-hour period, this scenario is forecast to add 359 daily trips during a typical weekday.
- The “Weekday: Game Day” scenario addresses Project traffic activity on the fifth weekday of that illustrative week. Substitution of a “full-house” baseball, and softball game, with a spring football practice or track and field, or soccer practice on the four spectator fields, would increase the weekday PM peak hour Project trip generation to 260 trips, and the daily generation to 559 trips. These trip totals are also consistent with occasional simultaneous baseball and softball games with a combined attendance of 500 spectators, and a home as well as a visitor team on each of those two fields. This scenario illustrates the “worst case” weekday condition for the proposed Project.
- The defining “worst case” weekend scenario (occurring roughly five Fall Saturdays per year) is that of a “full house” home football game (“Weekend: Game Day-Fall). On such days, the 24-hour trip generation total would grow to a forecast of 947 trips (evenly divided between inbound and outbound movements), with 377 trips occurring in the hour before the start of the game, and 535 trips in the hour following it.
- The more frequent weekend scenario, but with trip generation potential less than one-half of its fall counterpart, is that of the “Weekend: Game Day (Spring)” scenario. Its 24-hour trip-making

potential would total 593 trips (one-half arriving and one-half departing), with 237 trips forecast for the peak arrival hour, and 321 trips forecast for the peak departure hour.

- It is important to note that in order to provide a conservative analysis, it was assumed that no trip credits were assumed resulting from the relocation of the athletic fields.

Cumulative Project Trip Generation

A total of thirty-three (33) cumulative development projects within a two-mile radius of the Project site were identified by the Cities of Claremont and Upland. Most of the cumulative developments are anticipated to be built and occupied by the Project’s Opening Year of 2027. Combined, the 33 cumulative projects are forecast to generate a total of 38,801 daily trips on a “typical” weekday, with 2,969 trips (1,664 inbound and 2,876 outbound) occurring during the AM peak hour and 3,262 trips (2,963 inbound and 2,023 outbound) occurring during the PM peak hour.

The cumulative projects are forecast to generate a combined total of 43,838 daily trips on a “typical” weekend, with 4,369 trips (3,965 inbound and 3,321 outbound), occurring during the AM peak hour and 4,210 trips (3,486 inbound and 3,658 outbound) occurring during the PM peak hour.

Non-CEQA Traffic Analysis Findings

- Under the Existing (Weekday) traffic conditions, only one (1) key study intersection operates at an unacceptable level of service (LOS). The remaining study intersections currently operate at acceptable LOS during the AM and PM peak hours. The intersection operating at an adverse LOS is as follows:

Intersection	Peak Hour	Existing Year 2023 – Weekday Conditions	
		LOS	Delay (sec/veh)
3. Base Line Road and Monte Vista Ave	AM	F	97.7
	PM	F	97.4

- Under the Existing Year (Weekend) traffic conditions, all study intersections currently operate at an acceptable LOS during the AM and PM peak hours.
- To forecast the Opening Year (2027) With Project conditions, the Existing Year 2023 traffic volumes were growth-factored up by a total of four percent to account for annual ambient traffic growth in the Project vicinity. Cumulative development and Project traffic volumes were then added to the Opening Year baseline traffic volumes to derive the Opening Year With Project traffic volumes.
- Under the Opening Year (2027) With Project conditions, all the study intersections are expected to operate at acceptable LOS “D” or better during the weekday AM and PM peak hours. Based on the Cities’ traffic deficiency criteria, the proposed Project traffic would not result in a traffic deficiency at any of the study intersections, except at Base Line Road and the I-210 Ramps.
- Under the Horizon Year (2045) With Project conditions, four (4) key study intersections are forecast to operate at an unacceptable level of service with the addition of Project traffic, based on the applicable LOS deficiency criteria. The remaining key study intersections are forecast to operate at an acceptable LOS during the AM and PM peak hours for the Year 2045 Cumulative Plus Project condition, under all event scenarios: Weekday – Practice Day; Weekday – Game Day; Weekend – Game Day [Fall]; and Weekend – Game Day [Spring] traffic conditions. The intersections forecast to operate at an unacceptable LOS during the Horizon Year (2045) With

Project conditions are listed below:

Intersection	Weekday: Practice Day		
	Peak Hour	LOS	Delay (sec/veh)
13. 6 th St & Indian Hill Blvd	AM	E	54.9
	PM	F	77.1
14. 6 th St & College Ave	AM	-	-
	PM	E	42.5
20. 1 st St & College Ave	AM	-	-
	PM	F	80.5

Intersection	Weekday: Game Day		
	Peak Hour	LOS	Delay (sec/veh)
13. 6 th St & Indian Hill Blvd	AM	E	54.9
	PM	E	85.3
14. 6 th St & College Ave	AM	-	-
	PM	E	44.1
20. 1 st St & College Ave	AM	-	-
	PM	F	81.3

Intersection	Weekend: Game Day [Fall]		
	Peak Hour	LOS	Delay (sec/veh)
4. Base Line Road & I-210 Ramps	AM	F	86.7
	PM	-	-
13. 6 th St & Indian Hill Blvd	AM	E	74.5
	PM	E	148.3
14. 6 th St & College Ave	AM	-	-
	PM	E	45.2
20. 1 st St & College Ave	AM	-	-
	PM	E	45.4

Intersection	Weekend: Game Day [Spring]		
	Peak Hour	LOS	Delay (sec/veh)
4. Base Line Road & I-210 Ramps	AM	F	85.7
	PM	-	-
13. 6 th St & Indian Hill Blvd	AM	E	73.1
	PM	F	127.8
14. 6 th St & College Ave	AM	-	-
	PM	E	42.3
20. 1 st St & College Ave	AM	-	-
	PM	E	44.3

The intersections listed above are forecast to operate at a deficient level of service during the Year 2045 Cumulative Plus Project traffic conditions under the (non-CEQA) LOS criteria identified in this report. The implementation of recommended improvements outlined in this report would offset the Year 2045 Cumulative Plus Project traffic conditions, and restore the affected intersections to acceptable traffic conditions in accordance with applicable (non-CEQA) LOS criteria.

Recommended Improvements (Non-CEQA)

The results of the Opening Year 2027 and Horizon Year 2045 Cumulative Plus Project traffic LOS analyses indicate that the proposed Project traffic would result in unacceptable traffic conditions at four (4) out of the thirty-three (33) key study intersections. The following off-site improvements are recommended to offset conditions under each "With Project" analysis scenario. Claremont McKenna College will coordinate with the appropriate municipality and regulatory agency having jurisdiction over the roadways and public right-of-way where the recommended off-site improvements are located.

- Intersection #4 – Base Line Road & I-210 Ramps (Claremont): Widen and/or restripe and reconfigure the southbound off-ramp approach to provide a second (dual) southbound right-turn lane. Install traffic signal modifications to accommodate the additional lane and volumes.
- Intersection #13 – 6th Street & Indian Hill Boulevard: Implement active traffic management measures during Game Day events to divert westbound (outbound) event traffic away from the Indian Hill Boulevard/6th Street intersection, to travel south along Yale Avenue toward the traffic signal at 5th Street and Indian Hill Boulevard. Reconfigure the northbound approach lanes by adding a dedicated right-turn (curbside) lane. Restripe the westbound approach lanes from a single shared left/through/right-turn lane to one (1) left and one (1) shared through/right lane.
- Intersection #14 – 6th Street & College Avenue: Modify the southbound, westbound and eastbound approaches on 6th Street and College Avenue to provide a shared through-right turn while maintaining one left-turn lane.
- Intersection #20 – 1st Street & College Avenue: Restripe the northbound and southbound approach lanes provide a dedicated left-turn lane, through lane, and shared through/right-turn lane, as well as two receiving lanes. Adjust the existing bicycle lanes to accommodate the proposed geometry.

Applying the (non-CEQA) recommended improvements described above to the affected intersections would result in an acceptable peak-hour intersection LOS, as shown in the summary tables below:

Intersection	Weekday: Practice Day		
	Peak Hour	LOS	Delay (sec/veh)
4. Base Line Rd & I-210 Ramps	AM	C	27.6
	PM	C	30.0
13. 6 th St & Indian Hill Blvd	AM	D	33.3
	PM	C	20.9
14. 6 th St & College Ave	AM	C	19.4
	PM	D	27.7
20. 1 st St & College Ave	AM	C	16.3
	PM	D	29.8

Intersection	Weekday: Game Day		
	Peak Hour	LOS	Delay (sec/veh)
4. Base Line Rd & I-210 Ramps	AM	C	27.6
	PM	C	30.0
13. 6 th St & Indian Hill Blvd	AM	D	33.3
	PM	C	20.9
14. 6 th St & College Ave	AM	C	19.4
	PM	D	28.2
20. 1 st St & College Ave	AM	C	16.3
	PM	D	30.2

Intersection	Weekday: Game Day [Fall]		
	Peak Hour	LOS	Delay (sec/veh)
4. Base Line Rd & I-210 Ramps	AM	C	25.9
	PM	C	25.9
13. 6 th St & Indian Hill Blvd	AM	C	19.1
	PM	D	31.7
14. 6 th St & College Ave	AM	C	21.0
	PM	D	29.8
20. 1 st St & College Ave	AM	B	11.9
	PM	C	23.1

Intersection	Weekday: Game Day [Spring]		
	Peak Hour	LOS	Delay (sec/veh)
4. Base Line Rd & I-210 Ramps	AM	C	25.9
	PM	C	25.6
13. 6 th St & Indian Hill Blvd	AM	D	18.9
	PM	C	31.7
14. 6 th St & College Ave	AM	C	20.2
	PM	C	29.1
20. 1 st St & College Ave	AM	C	11.8
	PM	D	22.4

VMT Analysis Conclusions

The Project will primarily serve the student and faculty population of the adjacent Claremont McKenna College campus. The proposed Project uses can be considered to be local-serving and will reduce VMT within the surrounding community. Thus, based on the proposed project type, the Project meets the City of Claremont's and the City of Upland's VMT screening requirements and is not required to prepare additional VMT analysis. Most of the proposed Project athletic facilities will replace existing facilities at other locations on the CMC campus and the trips generated by the proposed Project facilities will primarily shift from these existing facilities. Nonetheless, to provide a comprehensive VMT analysis for the Project, a quantitative VMT analysis has been prepared for the proposed Project uses to demonstrate that the Project will generate VMT below the region average.

Estimates for daily VMT and VMT per service population were calculated for the Project uses based on the SCAG Travel Model (for Claremont) and SBTAM (for Upland) average trip length data. Based on data from the SCAG Travel Model, the Project is estimated to generate VMT at a rate between 2.28 and 4.76 VMT per service population for the four trip generation scenarios analyzed for the Project. This rate is much lower than the City of Claremont VMT threshold of 30.61 VMT per service population. Thus, the Project is not expected to result in a significant VMT impact per the City of Claremont Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment. Additionally, based on data from the SBTAM, the Project is estimated to generate VMT at a rate between 2.48 and 5.18 VMT per service population for the four trip generation scenarios analyzed for the Project. This rate is much lower than the City of Upland VMT threshold of 24.60 VMT per service population. Thus, the Project is not expected to result in a significant VMT impact per the City of Upland Traffic Impact Analysis Guidelines.

Jurisdiction	Worst-Case VMT per Service Population	Jurisdiction VMT Baseline	Jurisdiction VMT Threshold	Significant?
Claremont	4.76	36.02	30.61 (15% below)	No
Upland	5.18	24.60	24.60	No

Guidelines for both cities provide that a project has no cumulative VMT impact if it is consistent with the local RTP/SCS. The Project is an infill project that reduces the urban heat island effect and is in close proximity to most of its users on the adjacent college campus. As a result, the Project has no significant cumulative project generated VMT impact.

Thus, the Project is expected to generate VMT well below the thresholds set by the Cities of Claremont and Upland. Therefore, the Project will not result in a significant VMT impact.

PART 1 – INTRODUCTION

1.0 PROJECT INTRODUCTION

This Traffic Impact Analysis report addresses the potential traffic effects and circulation needs associated with the development (hereinafter referred to as the Project) on the Claremont McKenna College Roberts Campus East (formerly known as the Claremont Colleges East Campus). The Project site is approximately 74.44 acres of land that is generally located south of Foothill Boulevard and east of Claremont Boulevard in the Cities of Claremont and Upland, California.² Elements of the Project are collegiate sports venues (including soccer/rugby, baseball, softball, football/track/lacrosse), golf practice and multi-purpose fields, related support facilities, and on-site surface and covered structure parking. These elements are generally upgraded and replacement facilities for existing sports venues and parking that have or will be removed on the Claremont McKenna College (CMC) campus. The Project also adds some additional parking for the campus. The Project is a revision of a project previously approved for the site by the cities of Upland and Claremont in 2016.

This Traffic Impact Analysis analyzes the Project in accordance with the Traffic Analysis – Memorandum of Understanding (MOU) dated February 14, 2024, with the cities of Claremont and Upland (Appendix J) and in compliance with the California Environmental Quality Act (CEQA) guidelines (California Code of Regulations, Title 14, Section 15000 and following). The CEQA-related analysis was conducted in accordance with State of California Senate Bill 743 (Steinberg, 2013) (SB 743), which required a change in the CEQA guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of the CEQA transportation analysis shifted from vehicular delay, as measured by Level of Service or similar measures of vehicular capacity or traffic congestion, to vehicle miles traveled (VMT). A non-CEQA transportation analysis of the Project was also conducted in accordance with the MOU and includes analysis of the anticipated LOS at the study intersections and roadway segments as per the City of Upland’s Traffic Impact Analysis Guidelines (July 2020) and the City of Claremont’s Draft Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment (August 2020). The non-CEQA transportation analysis is not required for the determination of potential CEQA impacts.

The non-CEQA portion of this traffic analysis evaluates the existing and future operating conditions at twenty-nine (29) key intersections within the Project vicinity and along the site’s periphery, inclusive of 26 existing street intersections (one of which will become a signalized project driveway), and 3 proposed unsignalized site access driveways. Estimates of the proposed Project’s trip generation potential were studied for four different scenarios: Weekday – Practice Day; Weekday – Game Day; Weekend – Fall Game Day; and Weekend – Spring Game Day. Future traffic forecasts both without and with the Project, as well as the cumulative inclusion of other planned development projects in the area, were compared to assess the potential impacts of the Project on the local circulation network spanning the Cities of Claremont and Upland. This evaluation focuses on key intersections and driveways that will directly serve traffic accessing

² The area within the approximately 74-acre Project site that is proposed for development consists of approximately 66.5 acres. The Project site also includes an approximately 0.4 acre area underneath and west of Claremont Boulevard where the proposed tunnel would be located. The approximately 7.6 acres at the southern end of the Project site are not proposed for development as part of the Project.

the site, and where applicable, identifies intersection-level improvements to maintain an acceptable level of service.

The Project site and study areas were visited, and an inventory of the surrounding transportation network was completed to document the existing traffic and roadway conditions. Existing turning movement traffic volume count information was collected and compiled to support detailed intersection capacity analyses. This effort was supported by the collection of 24-hour machine traffic counts on key roadways, to illustrate the daily profile of traffic volumes in the study area. The work program for this traffic study was developed in conjunction with the Cities of Claremont and Upland staff as documented in the MOU and includes the most current and available list of related development projects and any future roadway improvement projects.

The non-CEQA traffic analysis evaluates the existing and future AM and PM peak hour traffic conditions at the key study intersections, specifically under the “Existing Base Line” Year (2023), Project Opening Year (2027), and Horizon Year (2045) traffic settings, both without and with the proposed Project. Cumulative traffic growth estimates were calculated using a 1% annual ambient growth factor. The ambient traffic growth factor is intended to include unknown and future cumulative projects in the study area, as well as account for regular growth in traffic volumes due to the development of other auxiliary projects outside of the study area.

1.1 STUDY AREA

Non-CEQA Project impacts on the surrounding street network were determined by evaluating twenty-nine (29) key intersections, inclusive of four (4) proposed Project driveways. Study intersections were selected for evaluation based on the previously approved 2016 traffic study for the project, as well as staff input and consultant peer reviews provided by both the Cities of Claremont and Upland. The intersections listed below were included in the scope of the study as documented in the MOU, provide local and regional access to the study area, and generally define the extent and boundaries for the traffic impact assessment:

**List of Study Intersections
(By Study Intersection ID #, Intersection Cross Streets, and Jurisdiction)**

1. Base Line Road at Indian Hill Boulevard	(Claremont)
2. Base Line Road at Mills Avenue	(Claremont)
3. Base Line Road at Monte Vista Avenue/Padua Avenue	(Claremont)
4. Base Line Road at I-210 Ramps	(Claremont/Caltrans)
5. Claremont Boulevard at Monte Vista Avenue	(Claremont)
6. Foothill Boulevard at Indian Hill Boulevard	(Claremont)
7. Foothill Boulevard at College Avenue	(Claremont)
8. Foothill Boulevard at Dartmouth Avenue	(Claremont)
9. Foothill Boulevard at Mills Avenue	(Claremont)
10. Foothill Boulevard at Claremont Boulevard	(Claremont)
11. Foothill Boulevard at Monte Vista Avenue	(Upland)
12. Foothill Boulevard at Central Avenue	(Upland)
13. 6 th Street at Indian Hill Boulevard	(Claremont)
14. 6 th Street at College Avenue	(Claremont)
15. 6 th Street at Mills Avenue	(Claremont)
16. 6 th Street/Arrow Route at Claremont Boulevard	(Upland)
17. Arrow Route at Monte Vista Avenue	(Upland)
18. Harrison Avenue/5 th Street at Indian Hill Boulevard	(Claremont)
19. 1 st Street at Indian Hill Boulevard	(Claremont)
20. 1 st Street at College Avenue	(Claremont)
21. 1 st Street/Huntington Drive at Claremont Boulevard	(Claremont)
22. Arrow Highway at Indian Hill Boulevard	(Claremont)
23. Arrow Highway at College Avenue	(Claremont)
24. Arrow Highway at Claremont Boulevard/Mills Avenue	(Claremont)
25. Claremont Boulevard at 9 th Street	(Claremont)
26. Foothill Boulevard at Project Driveway N	(Claremont)
27. Claremont Boulevard at Project Driveway SW	(Claremont)
28. Monte Vista Avenue at Project Driveway SE	(Upland)
29. Monte Vista Avenue at 1 st Street/Richton Street	(Upland/Montclair)

All twenty-nine (29) intersections and driveways were analyzed under both future weekday and weekend traffic conditions. This analysis recognizes and confirms that the weekday (versus weekend) traffic volume and level of service evaluation govern isolating the greatest non-CEQA impact potential of the Project. This aspect is discussed in more detail later in this report.

Figure 1.1 presents a Vicinity Map, which illustrates the general location of the Project, and locations of the key study intersection and depicts the surrounding street system.

1.2 NON-CEQA TRAFFIC IMPACT ANALYSIS SCENARIOS

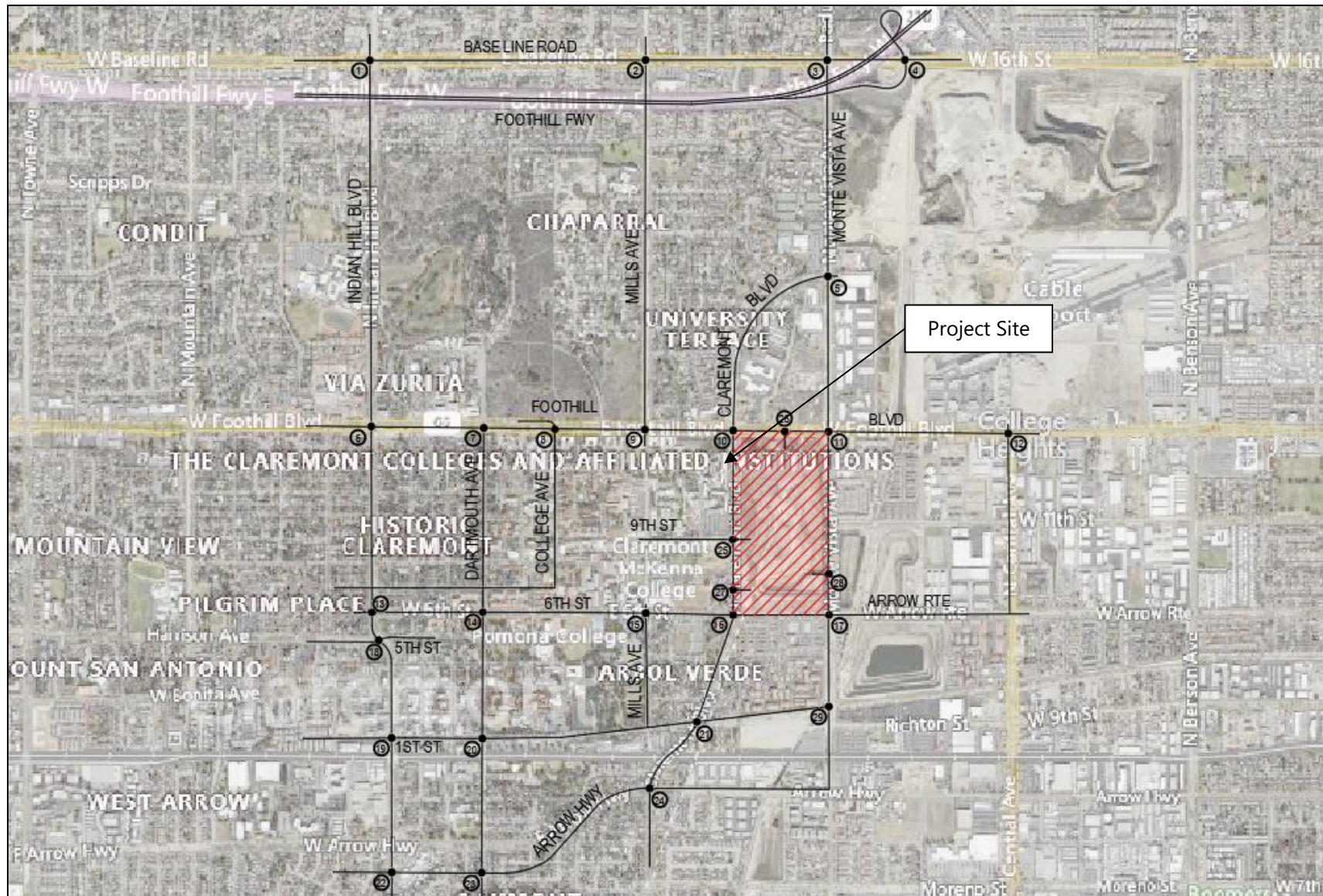
AM and PM peak hour intersection capacity analysis for the twenty-nine (29) key study intersections (including four Project driveways) have been conducted for the following scenarios:

- Existing Year 2023 Traffic Conditions (weekday)
- Existing Year 2023 Traffic Conditions (weekend)
- Opening Year 2027 Without Project Traffic Conditions (Weekday)
- Opening Year 2027 Without Project Traffic (weekend)
- Opening Year 2027 Plus Project Traffic Conditions (weekday)
- Opening Year 2027 Plus Project Traffic Conditions (weekend)
- Horizon Year 2045 Without Project Traffic Conditions (weekday)
- Horizon Year 2045 Without Project Traffic Conditions (weekend)
- Horizon Year 2045 Plus Project Traffic Conditions (weekday)
- Horizon Year 2045 Plus Project Traffic Conditions (weekend)

It should be noted that the weekend scenarios are based on Saturday AM and PM peak-hour traffic counts. The weekend AM peak hour is the sum of the peak consecutive 15 minutes between 10:00 AM and 1:00 PM and coincides with the arrival pattern of scheduled games on the weekend. The weekend PM peak hour is the sum of the peak consecutive 15 minutes between 3:00 PM and 5:00 PM and coincides with the departure pattern of those same games. Twenty-nine intersections around the perimeter of the Project site were analyzed for weekend traffic conditions as discussed in more detail later in this report.

The peak hour Delay/LOS calculations were based on the Highway Capacity Manual (HCM) 6th methodology for signalized and unsignalized intersections and are consistent with the Cities of Claremont and Upland as well as Caltrans capacity analysis methodology. It should be noted that the HCM 6th edition methodology does not support turning movements with shared and exclusive lanes; therefore, the HCM 2000 methodology was used for certain signalized intersections as indicated in this report. The Project's potential for "Non-CEQA traffic impacts" was determined based on the Cities of Claremont and Upland's level of service (LOS) criteria.

FIGURE 1.1 VICINITY MAP



2.0 PROJECT DESCRIPTION AND UTILIZATION

The Roberts Campus East site is bound by Foothill Boulevard on the north, Arrow Route (also known as Sixth Street in the City of Claremont) on the south, Monte Vista Avenue on the east, and Claremont Boulevard on the west. The site is a Class III landfill for inert materials and was formerly (1920 – 1972) used as a sand and gravel quarry. Landfill maintenance, and construction staging and construction-worker-related parking (providing when-needed support for campus construction activities) currently continue on the Project site. The site does not contain permanent structures except for a previously established archery range, which is not currently in use. The Project’s primary objective is to provide for the construction of collegiate sports facilities. These facilities will be used by students participating in Claremont McKenna College’s collegiate athletic programs. Additional objectives include the following:

- Reclaim the Project site while minimizing environmental impacts;
- Enhance the visual quality of the site and neighborhood;
- Provide additional parking; and
- Provide improved and expanded sports facilities

Figure 2.1 presents the proposed conceptual Site Plan for the Project, which is a revision to the conceptual site plan previously approved for the site in 2016. The proposed conceptual site plan also includes an alternative configuration for certain field house structures. The proposed conceptual site plan (both the primary site plan and the alternate field house configuration) will include fields for baseball, softball, soccer/rugby, football/track/lacrosse, as well three multi-purpose fields for practice activities only, and an area for golf practice. The majority of these fields would be relocated to the Project site from their existing (or former) locations on the CMC campus on the west side of Claremont Boulevard. The southern portion of the proposed development (i.e., Phase 1)—including the baseball, softball, golf, and football/track/lacrosse fields and associated support structures, as well as the surface and structure parking along Claremont Boulevard and tunnel beneath Claremont Boulevard—is slated for completion in December 2025, and potentially in use by June 2026. The northern portion (i.e., Phase 2), which includes the soccer/rugby field and multi-purpose practice fields, is anticipated to be completed by the Year 2027.

As shown in Figure 2.1, the Claremont-Upland city boundary line extends diagonally through the Project site in a northeast/southwest direction, from approximately 220 feet west of Monte Vista Avenue on Foothill Boulevard, to the northeast corner of the intersection of Claremont Boulevard and Arrow Route. This boundary also forms the Los Angeles County-San Bernardino County line, with Los Angeles County and the City of Claremont (29.14 acres) lying to the west, and San Bernardino County and the City of Upland (45.30 acres) lying to the east. The play fields and related facilities shown in the Site Plan Figure 2.1 will provide facilities for Claremont-McKenna College’s collegiate athletic programs (Claremont-Mudd-Scripps (CMS) Athletics and Claremont College Club Sports Programs), including practice as well as intercollegiate team play/game venues.

Table 2.1 summarizes the typical characteristics of existing CMS practice or gameplay anticipated to be relocated from the main CMC campus to the Project site. This table reflects information provided by CMS Athletics. As indicated, these are generally all replacement venues. The table also offers insight into the relative schedule, participant totals, and historical spectator levels for each venue based on the empirical experience of CMC and CMS Athletics. From Table 2.1, the indicated weekday CMS event times are universally in the 3:00 – 6:30 PM period or involve limited night play (7:30 PM) start time. Night play is more likely to be in the form of practice, and not involving spectator traffic. These characteristics were carried over to the framing of trip generation analyses for the Project.

FIGURE 2.1 PROPOSED CONCEPTUAL SITE PLAN

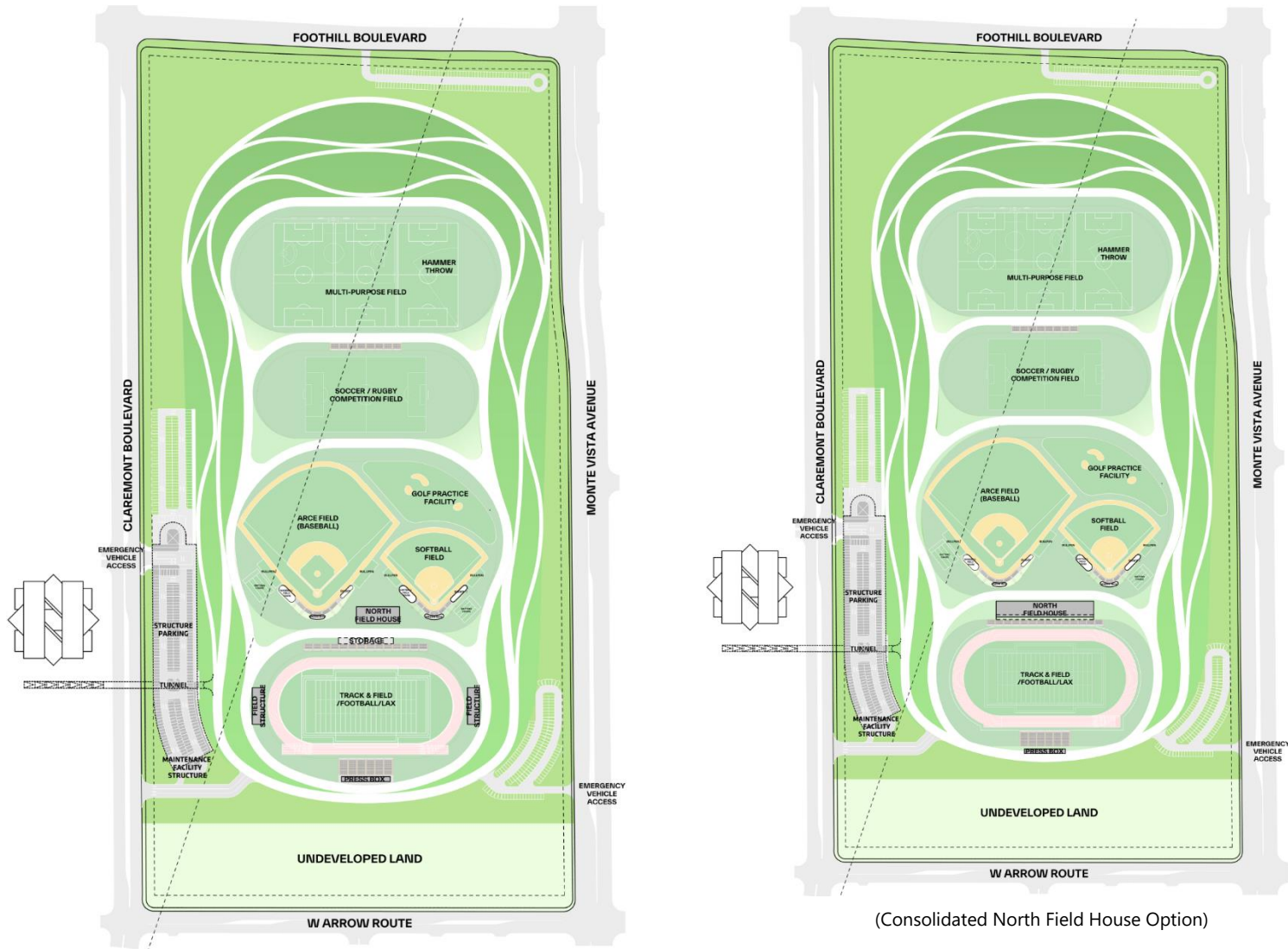


TABLE 2.1 TYPICAL UTILIZATION FOR KEY CMC SPORTS FACILITY VENUES

Facility	Replacement Facility?	Sport Characteristics	Daily Use	Competition Use	Traffic activity
Baseball Facility	Yes. From the west side of Claremont Blvd.	Approximately 19 weeks of practice and competition primarily in the spring. Field lights necessary to support proper practice and game scheduling.	Small group (2-8 SAs) training sessions throughout the day plus 2-3 hour team practices Monday – Thursday. Team practice schedule may vary between “afternoon” 3-6pm and “evening” 6-9pm depending on SA Class Schedules.	Friday afternoon/evening games and/or Saturday double headers February through May. Limited mid-week and Sunday play.	Limited daily driving to practice by staff and students (5-10 vehicles). Spectators - ~ 100 normally, 20-30 cars. Visiting teams travel in buses and Vans, adding another 35 players and coaches.
Softball Facility	Yes. From the west side of Claremont Blvd.	Approximately 19 weeks of practice and competition primarily in the spring. Field lights necessary to support proper practice and game scheduling	Small group (2-8 SAs) training sessions throughout the day plus 2-3 hour team practices Monday – Thursday. Team practice schedule may vary between “morning” 6-9am, “afternoon” 3-6pm, and “evening” 6-9pm depending on SA Class Schedules.	Friday afternoon/evening games and/or Saturday double headers February through May. Limited mid-week and Sunday play.	Limited daily driving to practice by staff and students (4-8 vehicles). Spectators - ~ 100 normally, 20-30 cars. Visiting teams travel in buses and Vans, adding another 25 players and coaches.
Soccer/Rugby Facility	Yes. From the west side of Claremont Blvd.	Approximately 19 weeks of practice and competition primarily in the Fall. Two teams. 30 players and coaches for each gender. Field lights necessary to support proper practice and game scheduling.	Daily 3-10pm to cover both genders practices and competitions.	Wednesday evening games and Saturday day or evening games; occasional double headers with both genders at home.	Limited daily driving to practice by staff and students (4-8 vehicles). Spectators - ~ 100-200 on average; up to 500 for big games, 20-30 cars. Visiting teams travel in buses and Vans, adding another 30 players and coaches.

Multi-Purpose Fields	Yes	To be utilized by varsity teams (LAX, FB, Soccer) during their non-traditional seasons and Club Rugby during the Fall. Some LAX Spring practice based on Track & Field practice schedule to alleviate conflicts there. Football might occasionally utilize grass field to prep for a game on grass.	High usage M-F from 3-10pm—possible morning usage as well.	Could be utilized for club sport competition as well as varsity non-traditional competition.	Limited daily driving to practice by staff and students (10-15 vehicles).
Golf Practice Area	Yes	19 weeks spread between the fall and spring for official team practices and competitions. Individual students will practice and train year round. 10-15 SAs and coaches per gender Lighting preferred to accommodate SA training opportunities.	Small group (2-3 SAs) training sessions throughout the week.	None.	Limited daily driving to practice by staff and students (1-2 cars)
Football/ Track & Field	Yes. Current facilities are adjacent to Roberts Pavilion.	<u>Football</u> - Approximately 19 weeks of practice and competition primarily in the Fall. 100 players, coaches, and support staff. Field lights necessary to support proper practice and game scheduling. <u>Track & Field</u> - Approximately 24 weeks of practice and competition in both fall and spring. 100 coaches and staff across both genders Lights necessary to support proper practice and meet scheduling	<u>Football</u> - Team practice Monday – Thursday from 6am – 10am with walk-thrus on Fridays. <u>Track & Field</u> - Event group practices from 6am to 9pm. Event groups range from 5 – 50 student-athletes across both genders.	<u>Football</u> - 4-5 home games on Saturdays in either the afternoon or evening.; game setup begins 4 hours prior to kickoff <u>Track & Field</u> - 4-5 home events per spring season. These are the largest events we host in any year. As many as 400-1000 competitors from a variety of institutions. As many as 50 event staff are required to conduct a large meet.	Limited daily driving to practice by staff and students (10-15 vehicles). Spectators – 800-1000 on average; up to 1500 (T&F: 500-1000 on average; up to 2000 for a very large meet. Most fans do not stay for the entire day but watch specific events.) Visiting teams travel in 3-5 buses, adding another 100-150 players and coaches (T&F: Visiting teams travel in 2-3 buses per teams plus individuals in vans, 150 players & coaches; for Large meets, 8-10 buses plus 25 participant vehicles.) Visiting team support staff will need vehicle access to the field level for equipment and supplies. Need access for on-field ambulance.

PART 2 – NON-CEQA TRANSPORTATION ASSESSMENT

3.0 METHODOLOGY AND THRESHOLDS

3.1 CAPACITY ANALYSIS METHODOLOGIES

3.1.1 Highway Capacity Manual (HCM) Method of Analysis – Signalized Intersections

In conformance with the Cities of Claremont and Upland as well as Caltrans non-CEQA requirements, morning (AM) and afternoon/evening (PM) operating conditions for the key study intersection were evaluated using the Highway Capacity Manual (HCM) 6th methodology for signalized intersections. Based on the HCM operations method of analysis, the level of service for signalized intersections is defined in terms of control delay (in seconds per vehicle), which is a measure of driver discomfort, frustration, fuel consumption and lost travel time. The delay experienced by a motorist is made up of several factors that relate to control, geometries, traffic and incidents. Total delay is the difference between the travel time experienced and the reference travel time that would result during ideal conditions: in the absence of traffic control, in the absence of geometric delay, in the absence of any incidents and when there are no other vehicles on the road.

In Chapter 16 of the HCM, only the portion of total delay attributed to the control facility (study intersection) is quantified. This delay is called control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. Specifically, LOS criteria for traffic signals are stated in terms of the average control delay per vehicle. This is a weighted average in that it considers the individual delay for each movement or group of movements at the intersection and the total traffic volume on each of those movements. The six qualitative categories of Level of Service that have been defined along with the corresponding HCM control delay (seconds per vehicle) value range for signalized intersections are shown in **Table 3.1**.

3.1.2 Highway Capacity Manual (HCM) Method of Analysis – Unsignalized Intersections

The Highway Capacity Manual (HCM) 6th methodology for unsignalized intersections was utilized in the analysis of stop-controlled intersections. For all-way stop-controlled intersections, this methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. The overall average control delay measured in seconds per vehicle and level of service is then calculated for the entire intersection. The HCM control delay value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance.

For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle, and determines the level of service for that approach. The HCM delay value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in **Table 3.2**.

3.2 NON-CEQA IMPACT CRITERIA AND THRESHOLD

The LOS standards and impact criteria described below were applied according to each intersection's jurisdiction.

3.2.1 City of Claremont Standards

According to the City of Claremont LOS criteria, LOS D and E are the minimum acceptable conditions that should be maintained during the peak commute hours for secondary and major arterials, respectively.

Based on the City of Claremont's General Plan, Monte Vista Avenue, Foothill Boulevard, Base Line Road, and Arrow Highway are designated as Major Arterials, indicating that the minimum LOS at the intersections located along each of these four roadways must be LOS E or better. Indian Hill Boulevard, Mills Avenue, Claremont Boulevard, First Street/Huntington Drive are designated as Secondary Arterials, indicating that the minimum LOS at the intersections located along these roadways must be LOS D or better. In addition, Sixth Street (east of Harvard Avenue), Harrison Avenue/Fifth Street (west of Harvard Avenue) and College Avenue are designated as a Collector Roadway, indicating that the minimum LOS at the intersections located along these roadways must be LOS D or better.

On that basis, the following Claremont intersections must operate at Level of Service E or better with the inclusion of Project trips:

- | | |
|---|------------------------------------|
| 1. Base Line Road at Indian Hill Boulevard | (Claremont) |
| 2. Base Line Road at Mills Avenue | (Claremont) |
| 3. Base Line Road at Monte Vista Avenue/Padua Avenue | (Claremont) |
| 4. Base Line Road at I-210 Ramps | (Claremont/Caltrans ³) |
| 6. Foothill Boulevard at Indian Hill Boulevard | (Claremont) |
| 7. Foothill Boulevard at College Avenue | (Claremont) |
| 8. Foothill Boulevard at Dartmouth Avenue | (Claremont) |
| 9. Foothill Boulevard at Mills Avenue | (Claremont) |
| 10. Foothill Boulevard at Claremont Boulevard | (Claremont) |
| 22. Arrow Highway at Indian Hill Boulevard | (Claremont) |
| 23. Arrow Highway at College Avenue | (Claremont) |
| 24. Arrow Highway at Claremont Boulevard/Mills Avenue | (Claremont) |

Further, the following Claremont intersections must operate at Level of Service D or better with the inclusion of Project trips:

- | | |
|---|-------------|
| 7. Foothill Boulevard at College Avenue | (Claremont) |
| 8. Foothill Boulevard at Dartmouth Avenue | (Claremont) |
| 13. 6 th Street at Indian Hill Boulevard | (Claremont) |
| 14. 6 th Street at College Avenue | (Claremont) |
| 15. 6 th Street at Mills Avenue | (Claremont) |
| 18. Harrison Avenue/5 th Street at Indian Hill Boulevard | (Claremont) |
| 19. 1 st Street at Indian Hill Boulevard | (Claremont) |
| 20. 1 st Street at College Avenue | (Claremont) |
| 25. Claremont Boulevard at 9 th Street | (Claremont) |

³ Refer to Section 3.2.3 for more information regarding jurisdictional requirements

The City of Claremont's performance criteria⁴ further stipulates that:

- If the intersection currently operates at a deficient LOS, the existing LOS shall be maintained.
- When an acceptable LOS cannot be maintained with a proposed development, improvements or other measures should be required to meet the City's standards. Such improvements or measures could include traffic signal improvements, additional turning, and merging lanes, and/or changes to the Project.

3.2.2 City of Upland Standards

For the study intersections in the City of Upland, LOS D is the minimum acceptable condition that should be maintained during peak commute hours. Hence any of the study intersections within the City of Upland's jurisdiction operating at LOS E or F is considered deficient/unsatisfactory. The following locations are subject to this standard:

11. Foothill Boulevard at Monte Vista Avenue	(Upland)
12. Foothill Boulevard at Central Avenue	(Upland)
16. 6 th Street/Arrow Route at Claremont Boulevard	(Upland)
17. Arrow Route at Monte Vista Avenue	(Upland)
28. Monte Vista Avenue at Project Driveway SE	(Upland)
29. Monte Vista Avenue at 1 st Street/Richton Street	(Upland/Montclair)

The City of Upland standards are silent on those situations where the background (no Project) condition exceeds the LOS D standard, and where the Project adds measurable traffic resulting in no change in the background LOS, but where the delay calculation may be affected. In those instances, consistent with other professional practices, the following interpretation has been applied:

- A measurable increase in intersection delay of less than one second/vehicle, at locations where the background condition exceeds LOS D, is not considered unacceptable and is consistent with the applicable standard.
- An increase in delay of one second/vehicle or more, at locations where the background condition exceeds LOS D, is considered unacceptable and inconsistent with the applicable cumulative standard.

In either case, as long as LOS D is exceeded, and a measurable change in the delay is forecast, a fair-share Project contribution has been calculated.

3.2.3 Regional and State Regulatory Standards

Southern California Association of Governments (SCAG)

The Southern California Association of Governments (SCAG) develops the Regional Transportation Plan (RTP), which presents the transportation vision for Los Angeles, Orange, San Bernardino, Imperial, Riverside, and Ventura Counties. Senate Bill 375 (SB 375) was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing and

⁴ Source: Claremont General Plan, Chapter 4: Community Mobility Plan

environmental planning. Under the law, SCAG is tasked with developing a Sustainable Communities Strategy (SCS), a newly required element of the Regional Transportation Plan (RTP) that provides a plan for meeting emissions reduction targets set forth by the California Air Resources Board.

The governing RTP/SCS (2020-2045) applicable to the Project, known as the "Connect SoCal 2020" Plan, was finalized and approved in September 2020. The Connect SoCal Plan presents the land use and transportation vision for the region through the year 2045, providing a long-term investment framework for addressing the region's challenges.

Connect SoCal 2020 also served as an update its predecessor, the 2016 RTP/SCS, to identify priorities for transportation planning within the Southern California region, set goals and policies, and identify performance measures for transportation improvements to ensure that future projects are consistent with other planning goals for the area. The RTIP, also prepared by SCAG based on the RTP, lists all of the regional funded/programmed improvements within a seven-year look-ahead timeframe.

County of San Bernardino Congestion Management Program (CMP) (for City of Upland facilities)

To address the increasing public concern that traffic congestion is impacting the quality of life and economic vitality of the State of California, Proposition 111 created the Congestion Management Program (CMP) in 1990. The intent of the CMP is to provide the analytical basis for transportation decisions through the State Transportation Improvement Program (STIP) process. Included with the provision for additional transportation funding was a requirement to undertake a Congestion Management Program (CMP) within each county with an urbanized area having a population of 50,000 or more, to be developed and adopted by a designated Congestion Management Agency (CMA). In 1990 the San Bernardino Associated Governments (SANBAG) was designated the CMA for San Bernardino County.

Although implementation of the CMP was made voluntary by the passage of AB 2419 (Bowler, 1996), the CMP requirement has been retained in all five urban counties within the SCAG region. In addition to its value as a transportation management tool, CMPs have been retained in these counties because of the Federal Congestion Management Process requirement that applies to all large urban areas that are not in attainment of federal air quality standards. These counties recognize that the CMP provides a mechanism through which locally implemented programs can fulfill most aspects of a regional requirement that would otherwise have to be addressed by the Regional Agency (SCAG).

The LOS at each CMP location is monitored by local jurisdictions in order to implement the statutory requirements of the CMP. If LOS standards deteriorate, then local jurisdictions must prepare a deficiency plan to meet conformance standards outlined by the countywide plan. The local CMP requires that a TIA report be prepared when a project's trip generation exceeds 250 two-way peak-hour trips. For the CMP roadway system, the LOS standard shall be E for all segments and intersections except those designated LOS F, as listed in Table 2-1 of the CMP (SANBAG 2016). However, per SB 743, LOS is no longer considered an environmental impact under CEQA.

County of Los Angeles Congestion Management Program (for City of Claremont facilities)

In Los Angeles County, the Los Angeles County Metropolitan Transportation Authority (Metro) is the designated CMA and is responsible for implementing the CMP. In 2018, Metro's Board approved to opt

out of the state's CMP program due to its framework that is grounded to the idea that congestion can be mitigated by continuing to add capacity to roadways. This is evidenced by the primary metric that drives the CMP program, which is LOS. Recent state laws and rulemaking, namely AB 32 (California Global Warming Solutions Act of 2006), SB 375 (Sustainable Communities and Climate Protection Act of 2008), SB 743 (Environmental quality: transit oriented infill projects, judicial review streamlining for environmental leadership development projects) and SB 32 (California Global Warming Solutions Act of 2006), all move away from LOS directly or indirectly.

Therefore, as the CMP primarily uses the LOS performance metric and these key state policies move towards other metrics such as VMT, the CMP contradicts these key state policies and Metro's own efforts to promote a more sustainable and equitable region. As stated in the June 25, 2019, Congestion Management Program Opt-Out Status Report, the decision to opt out of the CMP is not a unilateral decision made by Metro but a collective, majority decision of Metro and all 89 local jurisdictions in Los Angeles County (METRO 2019). The opting out of the CMP applies to Metro and all Los Angeles County local jurisdictions.

County of Los Angeles Public Works Department

Additionally, the County of Los Angeles Department of Public Works Board of Supervisors elected to be exempt from the CMP, pursuant to the California Code Section 65088.3. The resolution was adopted on July 16, 2019 and allows "the region to use different performance measures consistent with State-mandates to determine roadway deficiencies and ensure adequate planning" (County of Los Angeles 2019).

California Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law, which created a process to change the way that transportation impacts are analyzed under California Environmental Quality Act (CEQA). SB 743 required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to level of service (LOS) for evaluating transportation impacts. Under the new transportation guidelines, LOS, or vehicle delay, is no longer considered an environmental impact under CEQA. The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. Under the new guidelines, VMT has been adopted as the most appropriate measure of transportation impacts under CEQA. The OPR's regulatory text indicates that a public agency may immediately commence implementation of the new transportation impact guidelines, and that the guidelines must be implemented statewide by July 1, 2020.

California Department of Transportation (Caltrans)

As the owner and operator of the State Highway System, the State of California Department of Transportation (Caltrans) implements established state planning priorities in all functional plans, programs, and activities. Caltrans has the responsibility to coordinate and consult with local jurisdictions when proposed local land use planning and development may impact state highway facilities. Pursuant to Section 21092.4 of the Public Resources Code (PRC), for projects of statewide, regional, or area-wide significance, the lead agency shall consult with transportation planning agencies and public agencies that have transportation facilities which could be affected by the project.

In anticipation of SB 743 implementation, Caltrans released the Draft Transportation Impact Study Guide (TISG) in February 2020, replacing the 2002 Guide for the Preparation of Traffic Impact Studies. Under the former 2002 guidance, a traffic impact study was required by Caltrans when a project generates and assigns over 100 peak hour trips to a state highway facility; or if the project generates and assigns 50 to 100 peak hours trips to a state highway facility causing the facility to approach LOS C or D; or 1 to 49 peak hour trips are generated and assigned to a state highway facility causing it to experience significant congestion (LOS E or F), increased risk for traffic collisions, or affect access to the facility (Caltrans 2002).

Per the 2020 TISG, Caltrans' primary review focus is now VMT, replacing LOS as the metric used in CEQA transportation analyses. Caltrans recommends use of OPR's recommended thresholds for land use projects and recommends following the guidance on methods of VMT assessment found in OPR's Technical Advisory (OPR 2018). Refer to Section 9 of this Traffic Impact Analysis for an impact analysis and summary of the applicable VMT thresholds pertaining to the Project.

In addition to VMT, the 2020 TISG also states that Caltrans may request a targeted operational and safety analysis to address a specific geometric or operational issue related to the State Highway System and connections with the State Highway System. Caltrans also notes that a future update of the TISG will include the basis for requesting transportation impact analysis not based on VMT and define elements to be included in non-VMT analysis. At the time of this study, this update has not been released; however, in order to provide a reasonable evaluation of the Project's potential traffic volume effects on State highway facilities in anticipation of Caltrans' forthcoming input, the I-210 interchange intersection with Baseline Road (i.e., Study Intersection #4) was added to the study area.

As detailed in latter sections of this report, the analysis included queuing and (non-CEQA) level of service (LOS) analyses for the intersection of Base Line Road at the I-210 On/Off-Ramps, and an evaluation of potential operational issues to address through recommended transportation improvements. Based on the Project volume forecasts presented in Figures 5.4 and 5.5, those impacts for the critical Weekday–Game Day condition represent no more than 26 vehicles travelling the SR-210 interchange intersection at Baseline Road during the weekday (Game Day) peak hour. Other more distant locations, including those in the I-10 corridor, would experience similar or lesser volume additions and impacts, and thus were not included in the key intersection locations listed in the traffic analysis scoping agreement (MOU).

TABLE 3.1 LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS⁵

Level of Service (LOS)	Control Delay Per Vehicle (seconds per vehicle)	Level of Service Description
A	≤ 10.0	This level of service occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10.0 and ≤ 20.0	This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.
C	> 20.0 and ≤ 35.0	Average traffic delays. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	35.0 and ≤ 55.0	Long traffic delays. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55.0 and ≤ 80.0	Very long traffic delays. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths and high v/c ratios. Individual cycle failures are frequent occurrences.
F	≥ 80.0	Severe congestion. This level, considered to be unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

TABLE 3.2 LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS⁶

Level of Service (LOS)	Highway Capacity Manual (HCM) Delay Value (seconds per vehicle)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

⁵ Source: Highway Capacity Manual 6th Edition, Chapter 16 (Signalized Intersections).

⁶ Source: Highway Capacity Manual 6th Edition, Chapter 17 (Unsignalized Intersections).

4.0 EXISTING CONDITIONS

Regional access to the Project site is provided by the San Bernardino/Foothill Freeway (I-10) on the North and the State Route 210 (SR-210) Freeway on the South. Brief descriptions of these highways and other roadways within the study area are provided below.

4.1 EXISTING STREET NETWORK

4.1.1 Freeways

State Route 210 (SR-210) is an east/west oriented freeway, extending through Los Angeles and San Bernardino Counties, connecting Claremont with the neighboring communities. In the Project vicinity, four mainline travel lanes are provided in the eastbound direction and three mainline travel lanes are provided in the westbound direction. HOV lanes are also provided adjoining the median of SR-210 Freeway. In the Project vicinity, eastbound and westbound ramps are provided on the SR-210 Freeway at Baseline Road (east of Monte Vista Avenue/Padua Avenue) and at Towne Avenue. These are located approximately one-mile northeast of the Project and three miles northwest of the Project site, respectively.

4.1.2 Roadways

1. Claremont Boulevard

Claremont Boulevard is a four-lane, divided roadway oriented in the north/south direction. According to the City of Claremont's General Plan, Claremont Boulevard is classified as a secondary arterial. Parking is generally permitted on both sides of Claremont Boulevard. Claremont Boulevard is posted with a speed limit of 45 miles per hour in the Project vicinity. Claremont Boulevard provides Class II bicycle facilities. On-street parking is permitted within or adjoining bike lanes, depending on the location along Claremont Boulevard. It should be noted that in the future the City of Claremont may remove the on-street parking that is currently located within the bike lanes along Claremont Boulevard since the street lacks sufficient right of way for separate parking and bike lanes, particularly north of Ninth Street.

2. Monte Vista Avenue

Monte Vista Avenue is a six-lane public roadway, divided by a raised median, which extends in the north/south direction. According to the City of Upland's General Plan, Monte Vista Avenue is classified as a secondary arterial. Parking is not permitted on either side of this roadway. North of Arrow Route, the posted speed limit is 45 miles per hour. South of Arrow Route, the speed limit is 35 miles per hour. Monte Vista Avenue provides Class II bicycle facilities.

3. Foothill Boulevard

Foothill Boulevard is a four-lane, divided public roadway, oriented in the east/west direction. It is located north of the Project site. According to the City of Claremont's General Plan, Foothill Boulevard is classified as a major arterial. Parking is typically restricted on either side of this roadway within the vicinity of the Project but is permitted adjoining Harvey Mudd College. West of Monte Vista Avenue, the posted speed limit on Foothill Boulevard is 40 mph. East of Monte Vista Avenue, the speed limit is 45 mph. It should be noted that with a unanimous vote of approval by the Claremont City Council in May 2012, Foothill Boulevard, from Towne Avenue to the County line (near Monte Vista Avenue), has been acquired from Caltrans and is now under the jurisdiction of the City of Claremont.

4. Ninth (9th) Street

Ninth Street in the Project area extends westward from Claremont Boulevard to Mills Avenue as a two-lane public roadway. It primarily serves the eastern campuses of Claremont Colleges. The Project will construct and align an east intersection leg (Driveway 3) to the Claremont Boulevard at Ninth Street intersection as its Project access and install a traffic signal at this location as part of the Project's development.

5. Sixth (6th) Street

Sixth Street west of Claremont Boulevard and within the City of Claremont is a public two-lane, undivided roadway oriented in the east/west direction. East of Claremont Boulevard, Sixth Street is known as Arrow Route, a four-lane roadway divided by a raised median. According to the City of Claremont's General Plan, Sixth Street is classified as a collector roadway. West of College Avenue, parking is permitted on both sides of the roadway. East of College Avenue, parking is not permitted on either side of the roadway and Class II (on-street) bike lanes are provided instead. The speed limit is 35 miles per hour between Mills Avenue and Claremont Boulevard, and 30 miles per hour between College Avenue and Mills Avenue.

6. Arrow Route

The Arrow Route is oriented in an east/west direction. West of Monte Vista Avenue, Arrow Route has been improved to a four-lane section by the adjoining College Park commercial center along the roadway's south edge, and a signal installed at the center's access intersection (College Park Drive). A westbound left-turn pocket provides for entry to the College Park project. The College Park project also implemented intersection improvements at the Claremont Boulevard and Monte Vista Avenue intersections with Arrow Route. Those improvements are reflected in the inventories and analyses of this study. The posted speed limit on Arrow Route is 45 mph. West of Claremont Boulevard, Arrow Route becomes Sixth Street. The Upland General Plan Circulation Element and the Upland Bicycle and Pedestrian Facilities Master Plan designate Arrow Route as a Class II/III bike route.

7. First (1st) Street

First (1st) Street is oriented in the east/west direction. First Street, east of College Avenue, consists of two travel lanes with Class II bike lanes, which are part of the Citrus Regional Bikeway, and a two-way left-turn lane. Parking is permitted on the north side of First Street, east of College Avenue, and on the south side of First Street east of Columbia Avenue. Parking is not permitted on the south side of First Street, between College Avenue and Columbia Avenue. According to the City of Claremont's General Plan, First Street is classified as a secondary arterial roadway east of Indian Hill Boulevard. The posted speed limit on First Street is 40 mph.

8. Indian Hill Boulevard

Indian Hill is a two-lane, divided public roadway oriented in the north/south direction. According to the City of Claremont's General Plan, Indian Hill Boulevard is classified as a secondary arterial. Indian Hill Boulevard provides Class II bicycle facilities between Baseline Road and Butler Court. Class II bicycle facilities include a striped bike lane within the roadway cross-section. Parking is prohibited on both sides of Indian Hill Boulevard at the Foothill Boulevard intersection. Indian Hill Boulevard is posted for a speed limit of 30 miles per hour in the Project vicinity.

9. College Avenue

College Avenue is a two-lane, undivided public roadway oriented in a north/south direction. Parking is typically permitted on both the sides of College Avenue. The posted speed limit on College Avenue is 30 miles per hour north of Sixth Street and 25 miles per hour south of Sixth Street. With the exception of a Class III "sharrow" (indicating a shared lane for vehicles and bikes) between Sixth Street and Bonita Avenue, College Avenue provides Class II bicycle facilities. According to the City of Claremont's General Plan College Avenue is classified as a collector roadway.

10. Mills Avenue

Mills Avenue is a two-lane, divided roadway oriented in the north/south direction. It extends from Foothill Boulevard northward, where the City of Claremont's General Plan designates it as a secondary arterial. On-street parking is permitted on both sides, and the posted speed limit is 40 miles per hour. Mills Avenue provides Class II bicycle facilities. Parallel parking is provided at both curbs in that segment.

11. Central Avenue

Central Avenue is a four-lane, divided roadway, which extends in the north/south direction. It is located east of the Project site in the City of Upland. Parking is not permitted on either side of this roadway within the vicinity of the Project. The posted speed limit is 40 miles per hour.

12. Baseline Road

Baseline Road is a four-lane public roadway which extends in an east/west direction. It is located north of the Project site. According to the City of Claremont's General Plan, Baseline Road is classified as a major arterial. Parking is not permitted on either side of this roadway within the vicinity of the Project. The posted speed limit on Baseline Road is 40 mph. Baseline Road provides Class II bicycle facilities.

13. Harrison Avenue / Fifth Street

Harrison Avenue/Fifth (5th) Street is a two-lane, undivided public roadway oriented in the west/east direction. According to the City of Claremont's General Plan, Harrison Avenue/Fifth Street is classified as a collector roadway. Parking is generally permitted on both sides of this roadway within the vicinity of the Project. The prima facie speed limit on Harrison Avenue/Fifth Street is 25 mph.

14. Arrow Highway

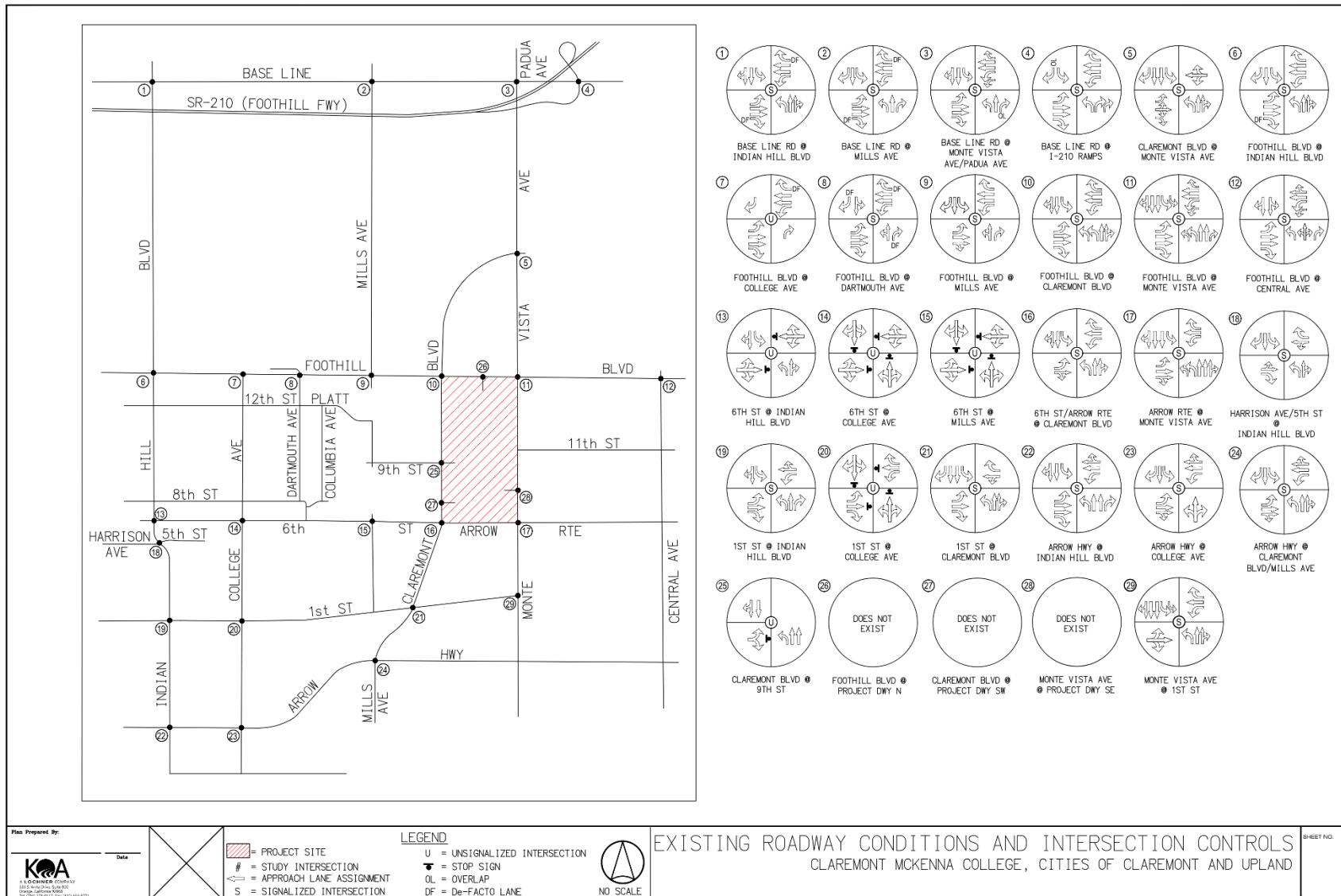
Arrow Highway is oriented in the east/west direction. According to the City of Claremont's General Plan, Arrow Highway is classified as a secondary arterial roadway. Parking is generally permitted on both sides of this roadway within the vicinity of the Project. The posted speed limit on Arrow Highway is 40 mph.

15. Dartmouth Avenue

Dartmouth Avenue is a two-lane, undivided public roadway oriented in the north/south direction. According to the City of Claremont's General Plan, Dartmouth Avenue is classified as a local roadway. Parking is not permitted on both side of Dartmouth Avenue within the vicinity of the Project. The prima facie speed limit on Dartmouth Avenue is 25 mph.

Figure 4.1 illustrates the existing traffic controls and approach lane geometries at the study intersections.

FIGURE 4.1 EXISTING INTERSECTION GEOMETRY



Plan Prepared By: Date: _____

= PROJECT SITE
 = STUDY INTERSECTION
 = APPROACH LANE ASSIGNMENT
 = SIGNALIZED INTERSECTION

LEGEND
 = UNSIGNALIZED INTERSECTION
 = STOP SIGN
 = OVERLAP
 = De-FACTO LANE
 NO SCALE

EXISTING ROADWAY CONDITIONS AND INTERSECTION CONTROLS
 CLAREMONT MCKENNA COLLEGE, CITIES OF CLAREMONT AND UPLAND

SHEET NO. _____

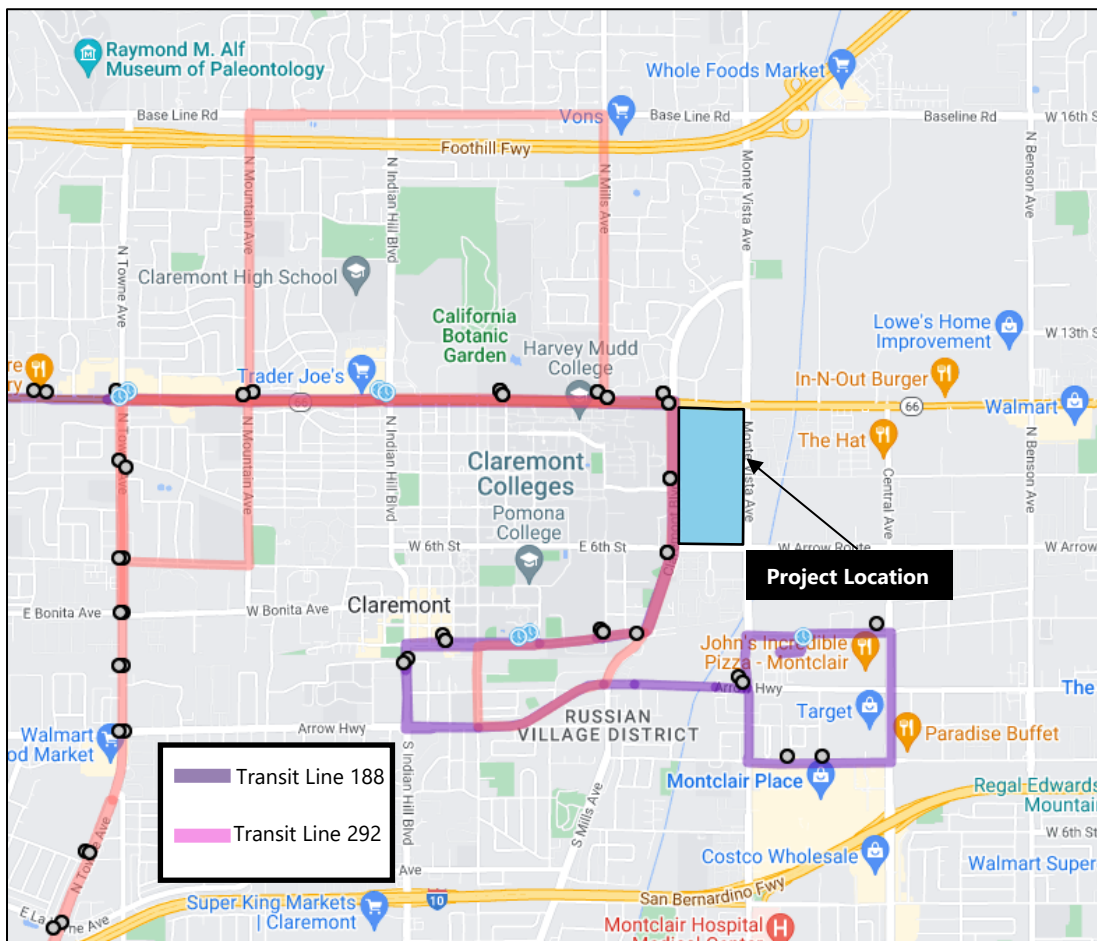
4.2 EXISTING PUBLIC TRANSIT

Table 4.1 provides a description of the public transit lines that operate within the study area. These bus lines are those that are within a “reasonable walking distance” (approximately one-half mile) of the Project site. The existing transit service serving the study area is depicted in **Figure 4.2**.

TABLE 4.1 EXISTING TRANSIT SERVICE SUMMARY

Agency	Line	From	To	Via	Peak-Hour Frequency
Foothill Transit	188	Azusa	Montclair Transit Center	Claremont Blvd	20 min
Foothill Transit	292	Claremont Transit Center	Pomona Transit Center	Foothill Blvd / Claremont Blvd	60 min

FIGURE 4.2 EXISTING TRANSIT



4.3 EXISTING TRAFFIC VOLUMES

4.3.1 Peak Hour Intersection Traffic Counts

Eight-hour turning movement traffic volumes were collected at twenty-one (21) existing signalized intersections and five (5) unsignalized intersections. The data was collected on Tuesday, October 22, 2022 (Weekdays) between the hours of 7 AM-9 AM (AM peak period), and 4 PM-6 PM (PM peak period) for only perimeter intersections of the Project. The other intersection data was collected on Thursday, April 13, 2023 (Weekdays) and Thursday, January 25, 2024, between the same time duration as mentioned above. The data was collected on Saturday, October 1, 2022 (Weekend) between the hours of 11 AM-1:30 PM (AM peak period), and 3 PM-5 PM (PM peak period) for only perimeter intersections of the Project. The other intersection data was collected on Saturday, April 15, 2023 (Weekend), and Saturday, January 27, 2024, between the same duration as mentioned above. The counts were performed to gain insight as to the existing variation in daily weekday versus weekend traffic due to the presence (and number) or lack of scheduled events. All traffic volume data was adjusted to reflect an "Existing Year" baseline Year of 2023.

Intersection turning movement traffic counts (TMCs) at key intersections focus on the peak hours of the street system, and cover a minimum continuous four-hour period per day (i.e., 2 hours in the AM, and 2 hours in the PM). TMCs are counted for each through-moving and turning maneuver, on each approach of the intersection. This data is used to identify the peak 60-minute traffic volume demand at each intersection location, and is further isolated in the traffic model by 15-minute peak factors to identify the critical volume combinations that travel through that intersection in a single hour. The manual TMC counts were collected on typical Tuesdays, Wednesdays and Thursdays during normal non-holiday weeks, when the local colleges were in session, and during times when no construction activities were present which could otherwise skew the traffic volume data. Monday and Friday counts are typically avoided since they tend to be "less normal", and are probably subject to variations in motorist individual schedules, including 4-day work weeks, "Work From Home" schedules, flextime, etc.

The 26 key study intersections were identified for evaluation based on the Cities of Claremont and Upland criteria, discussions with each City's staff and their peer review traffic consultants, and overall knowledge of the area-wide circulation system. It should be noted that additional intersections located within the City of Montclair were originally considered for analysis; however, those candidate intersections were ultimately not included in the TIA because they failed to meet or exceed the practiced 50-trip analysis threshold. The Existing Year weekday AM and PM peak hour traffic turn movement volumes are illustrated in **Figures 4.3 and 4.4**. These volumes represent the highest consecutive four 15-minute count volumes from the collected morning and afternoon/evening count periods.

Since the Project's Game Day activities are anticipated to also occur during the weekend, existing traffic volumes at each of the signalized and unsignalized study intersections were collected on typical mid-day (MD) and PM peak-hour Saturday periods. **Figures 4.5 and 4.6** present the existing MD and PM turning movement traffic volumes for each study intersection during the anticipated Game Day hours for Saturday games.

Appendix A contains detailed intersection traffic count data.

FIGURE 4.3 EXISTING YEAR 2023 (WEEKDAY) TRAFFIC VOLUMES – AM PEAK HOUR

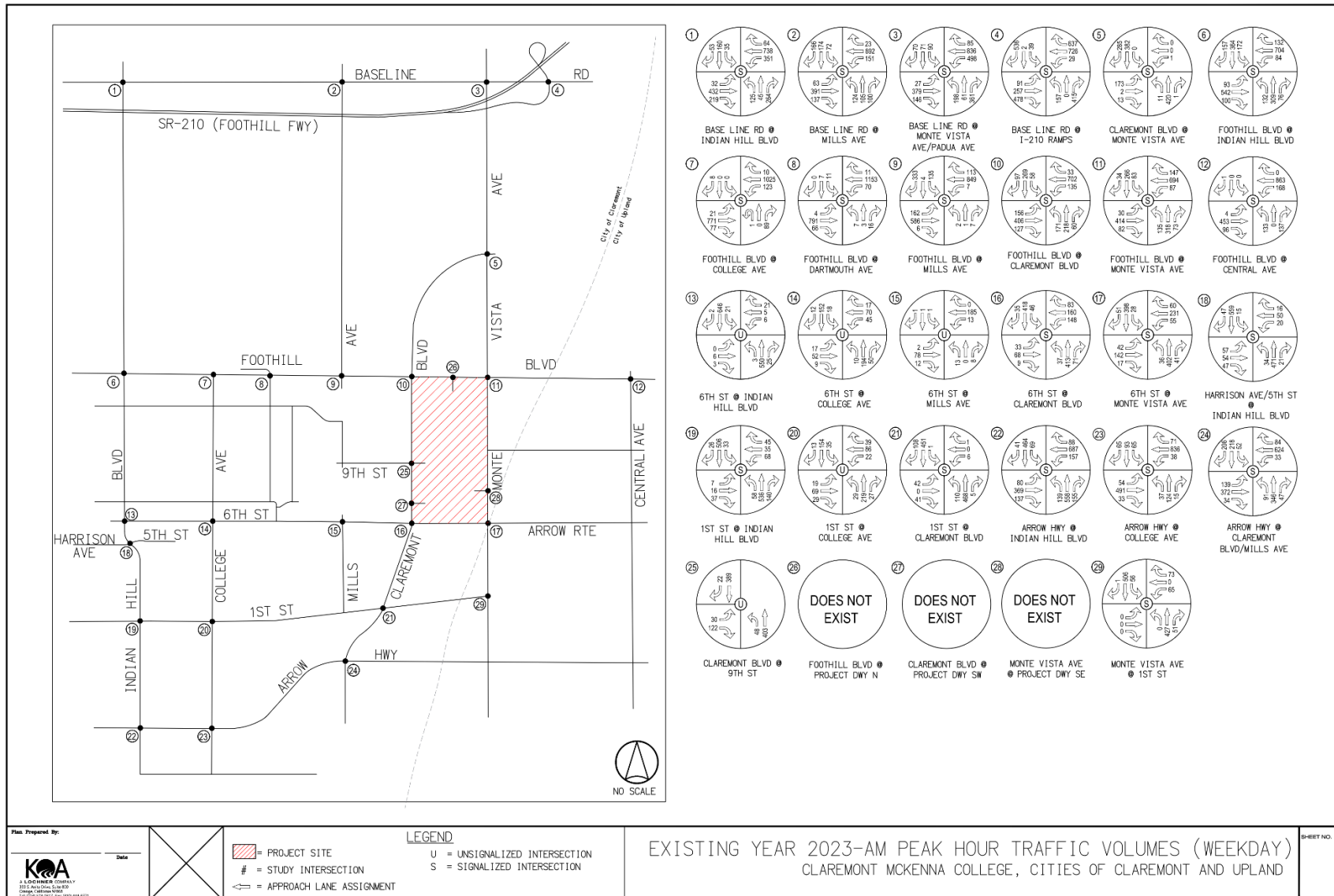


FIGURE 4.4 EXISTING YEAR 2023 (WEEKDAY) TRAFFIC VOLUMES – PM PEAK HOUR

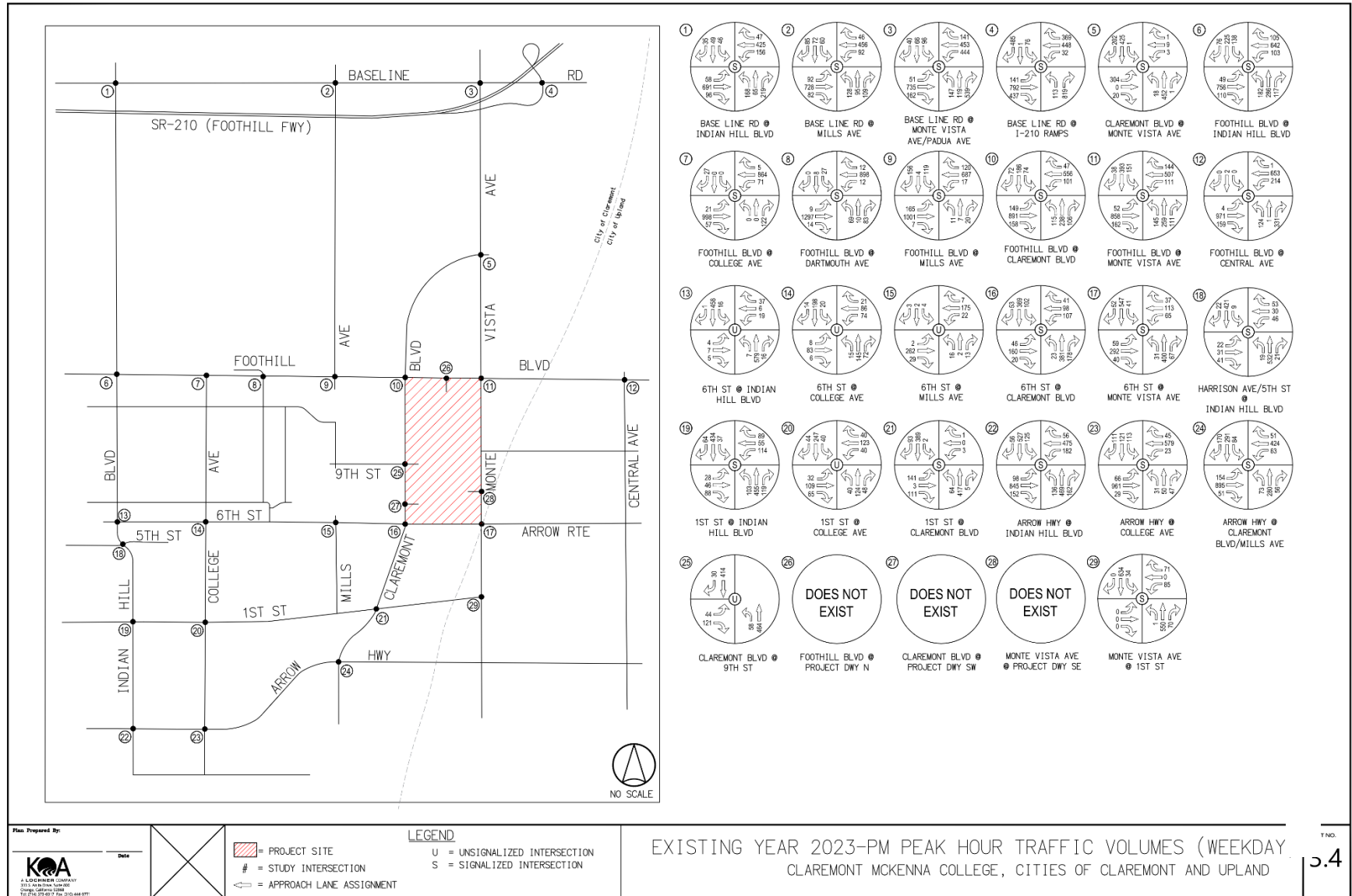


FIGURE 4.5 EXISTING YEAR 2023 (WEEKEND) TRAFFIC VOLUMES – MID-DAY PEAK HOUR

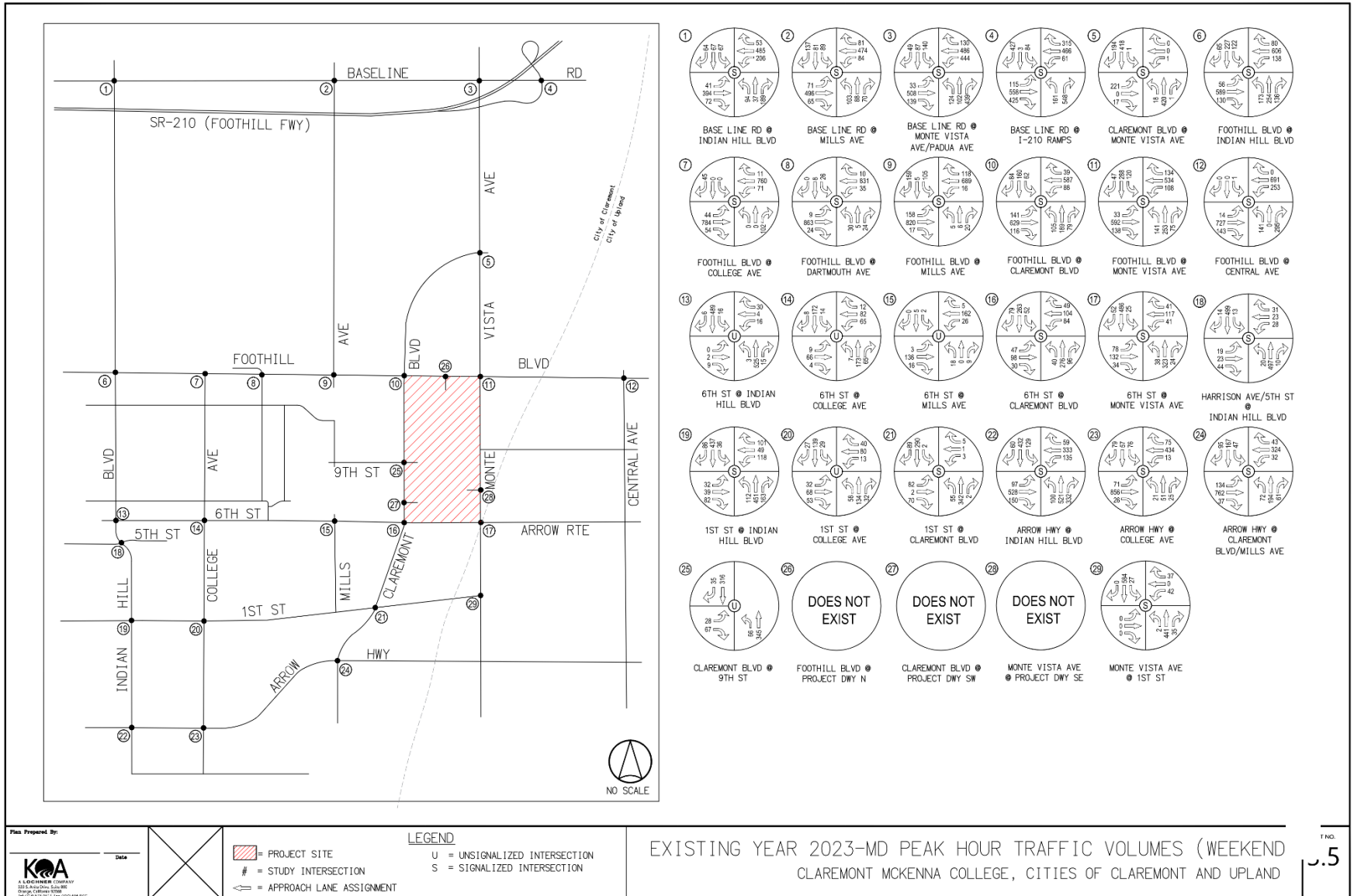
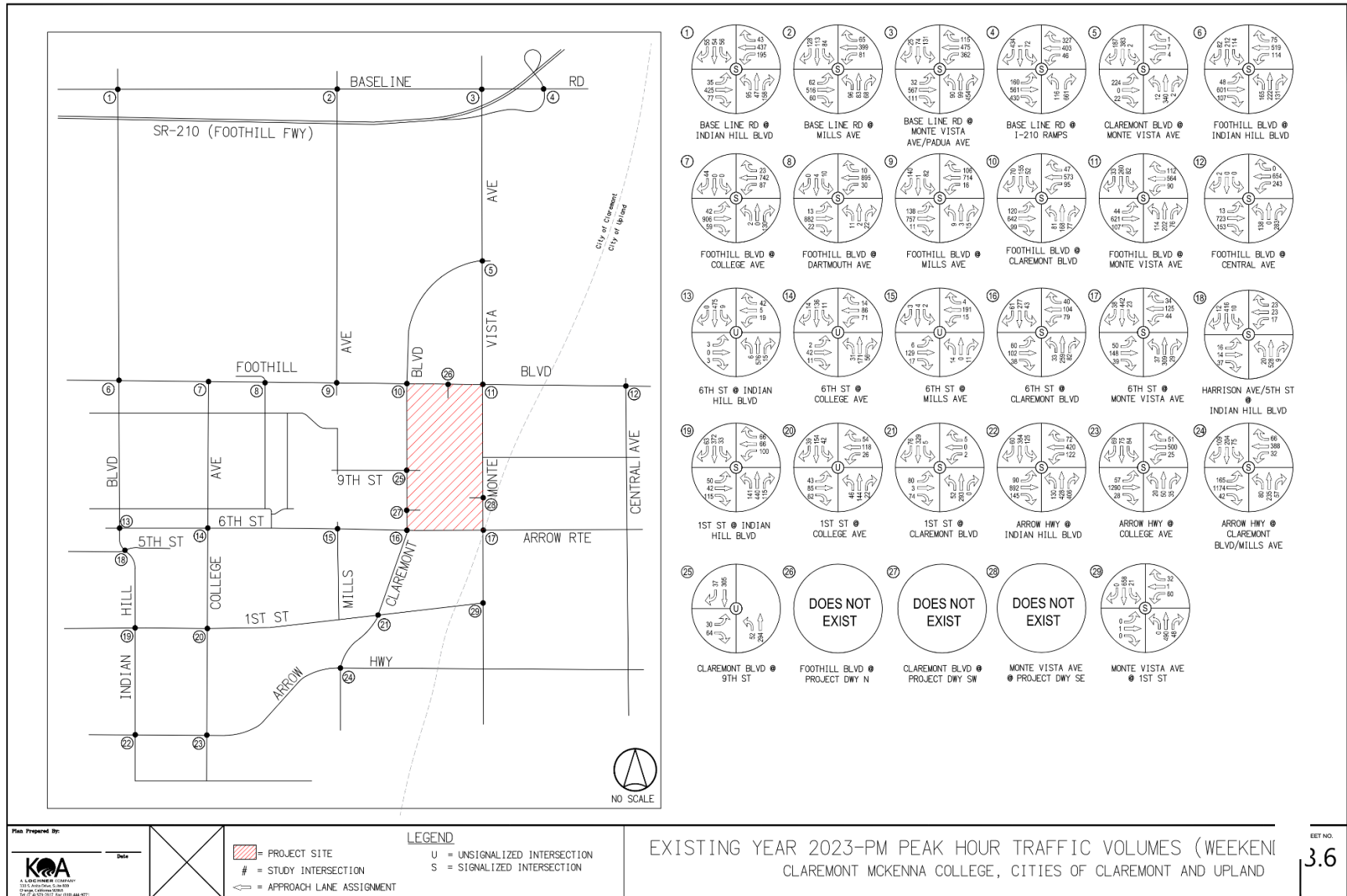


FIGURE 4.6 EXISTING YEAR 2023 (WEEKEND) TRAFFIC VOLUMES – PM PEAK HOUR



4.3.2 Existing Roadway Segment Volumes

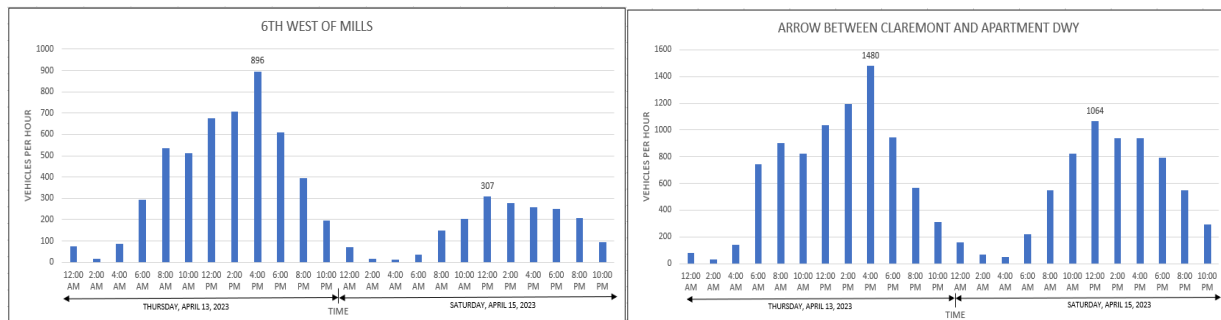
24-hour (daily) roadway traffic volume counts were collected at eleven (11) mid-block locations within close proximity to the Project site, as listed in **Figure 4.7.1** below. The daily roadway traffic volume counts were collected on Thursday, April 13, 2023; Saturday, April 15, 2023; Thursday, January 25, 2024; and Saturday, January 27, 2024. The counts were performed to gain insight as to the existing variation in daily weekday versus weekend traffic due to the presence or lack of scheduled events.

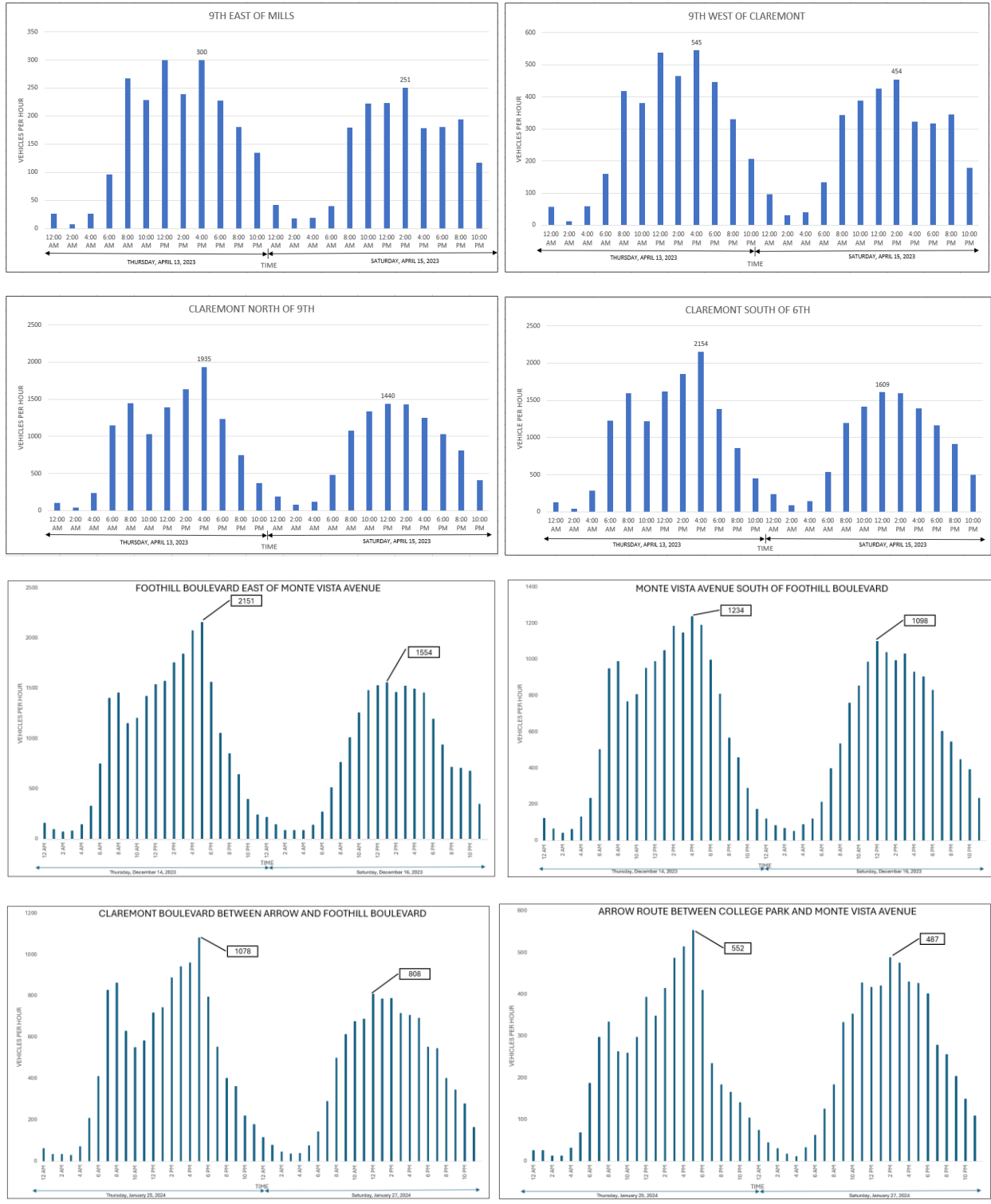
FIGURE 4.7.1 ROADWAY SEGMENT 24-HOUR TRAFFIC VOLUME COUNTS

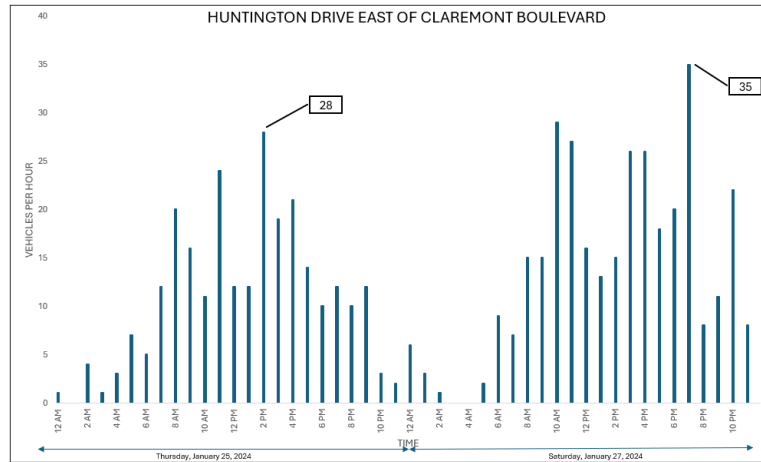
Study Roadway Segment ID, Location and Local Jurisdiction*					
A.) Foothill Boulevard east of Monte Vista Avenue	U	E.) 9th Street west of Claremont Boulevard	C	I.) Arrow Route between College Park Dr. & Monte Vista Ave.	U
B.) Monte Vista Ave between Foothill Boulevard & 11th Street	U	F.) Claremont Boulevard between 9th Street & 6th St./Arrow Rt.	C	J.) Claremont Boulevard south of 6th Street / Arrow Route	C
C.) Claremont Boulevard between Foothill Boulevard & 9th Street	C	G.) 6th Street west of Mills Avenue	C	K.) 1st Street between Claremont Blvd. & Monte Vista Ave. (future segment)	U
D.) 9th Street east of Mills Avenue	C	H.) Arrow Route between Claremont Bl. & College Park Dr.	U	* C = City of Claremont; U = City of Upland	

Figure 4.7.2 presents the existing hour-by-hour and daily traffic volume profiles for each study roadway segment. A review of this data further isolates the existing weekend AM peak hour and PM peak hour traffic volumes representative of the peak arrival and departure hours for Saturday games. Comparing these weekend peak hour to their weekday counterparts (i.e., left side of chart vs. right side) confirms that the weekend volumes are meaningfully to substantially less. Figure 4.7.2 also confirms the dominance of the weekday commuter PM peak hour (generally around 4:00pm or 5:00pm) versus the weekday commuter AM peak hour (generally between 8:00-9:00am).

FIGURE 4.7.2 EXISTING ROADWAYS AVERAGE DAILY TRAFFIC PROFILE







4.4 EXISTING INTERSECTION LEVEL OF SERVICE (WEEKDAY)

Table 4.2 summarizes the existing peak hour level of service of the key study intersections during the weekday, based on the field-collected weekday traffic volumes and current street geometry. A review of Table 4.2 indicates that based on the HCM method of analysis and the LOS criteria outlined in this report, one (1) key existing study intersection currently operates at an unacceptable level of service (LOS) during the AM and PM peak hours, while the remaining intersections operate at acceptable LOS.

Figure 4.8 graphically illustrates the existing weekday LOS results for the AM and PM peak hours.

TABLE 4.2 EXISTING (WEEKDAY) INTERSECTION PEAK HOUR LEVELS OF SERVICE SUMMARY

Study Intersections		Minimum Acceptable LOS	AM Peak Hour		PM Peak Hour	
			LOS	Delay in Seconds	LOS	Delay in Seconds
1	Base Line Rd & Indian Hill Blvd	E	C	20.6	C	21.1
2	Base Line Rd & Mills Ave	E	C	21.0	B	16.8
3	Base Line Rd & Monte Vista Ave/Padua Ave	E	F	97.7	F	97.4
4	Base Line Rd & I-210 Ramp	E	B	17.7	A	9.9
5	Claremont Blvd & Monte Vista Ave	E	A	9.4	B	12.9
6	Foothill Blvd & Indian Hill Blvd	E	D	40.1	D	51.5
7	Foothill Blvd & College Ave	E	A	1.3	A	1.5
8	Foothill Blvd & Dartmouth Ave	E	B	18.5	C	24.9
9	Foothill Blvd & Mills Ave	E	D	43.8	D	46.9
10	Foothill Blvd & Claremont Blvd	E	C	22.0	C	21.7
11	Foothill Blvd & Monte Vista Ave	D	C	20.3	C	24.5
12	Foothill Blvd & Central Ave	D	B	18.8	C	22.3
13	6 th St & Indian Hill Blvd	D	A	0.9	A	1.7
14	6 th St & College Ave	D	A	9.8	B	10.7
15	6 th St & Mills Ave	D	A	8.1	A	9.3
16	6 th St/Arrow Rt & Claremont Blvd	D	B	16.1	B	17.8
17	Arrow Rt & Monte Vista Ave	D	B	15.7	B	15.9
18	Harrison Ave/5 th St & Indian Hill Blvd	D	C	28.2	B	15.5
19	1 st St & Indian Hill Blvd	D	B	11.2	B	13.5
20	1 st St & College Ave	D	B	11.6	B	14.3

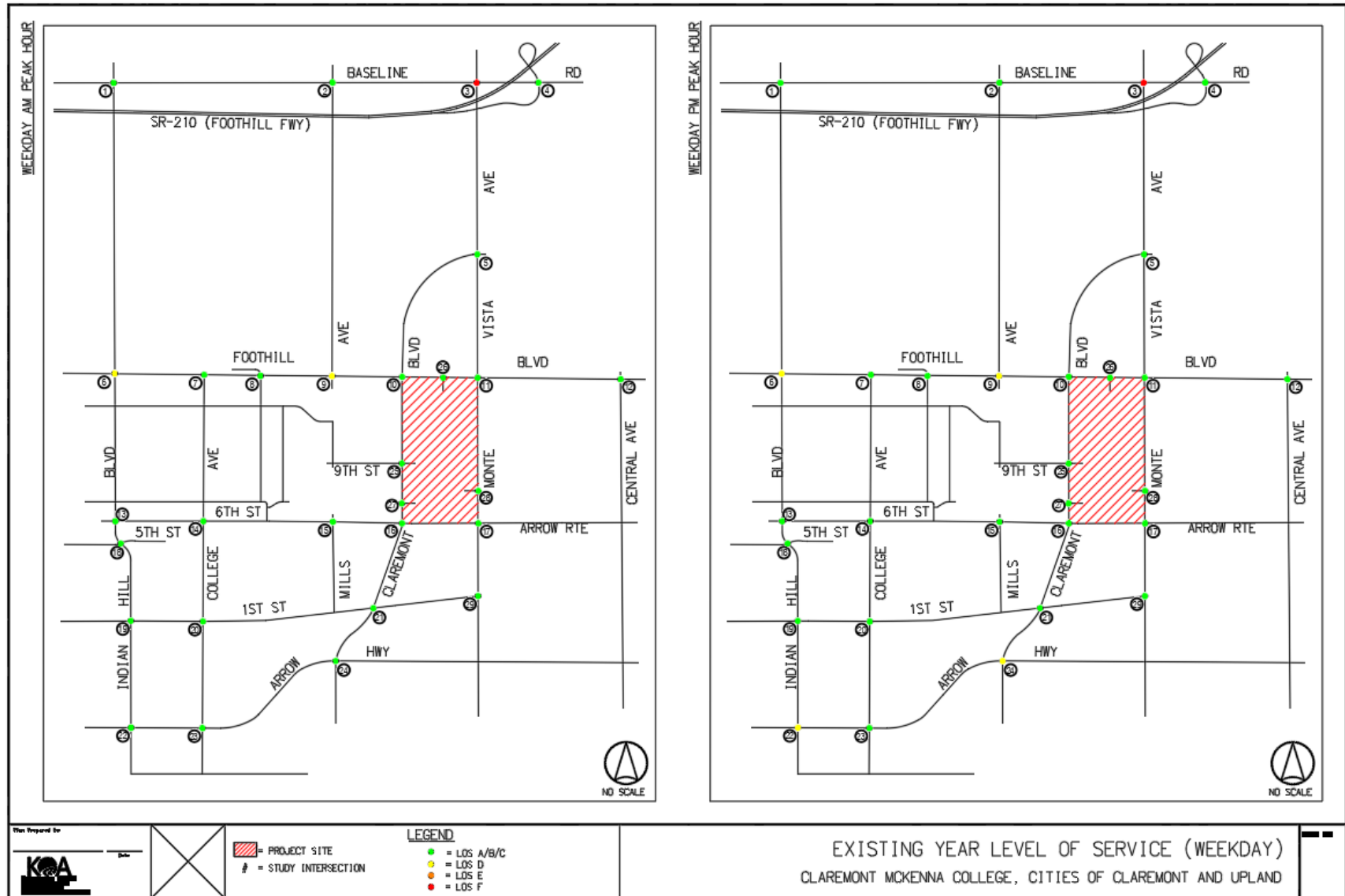
21	1 st St & Claremont Blvd	D	A	6.3	A	8.4
22	Arrow Hwy & Indian Hill Blvd	E	C	33.5	D	46.5
23	Arrow Hwy & College Ave	E	B	12.1	B	13.3
24	Arrow Hwy & Claremont Blvd/Mills Ave	E	C	30.4	D	41.9
25	Claremont Blvd & 9 th St	D	A	2.3	A	2.7
26	Foothill Blvd & Project Dwy N	-	-	-	-	-
27	Claremont Blvd & Project Dwy SW	-	-	-	-	-
28	Monte Vista Ave & Project Dwy SE	-	-	-	-	-
29	Monte Vista Ave & 1 st St/Richton St	D	A	7.0	A	7.8

"-" Denotes that the proposed driveway intersection currently does not exist; therefore no LOS is reported.

Delay/LOS values indicate unacceptable service levels based on LOS Criteria identified in this report.

Appendix B contains the Existing Year Weekday Delay/LOS calculation worksheets for each key study intersection.

FIGURE 4.8 EXISTING (WEEKDAY) INTERSECTION LEVEL OF SERVICE – AM & PM PEAK HOURS



4.5 EXISTING (WEEKEND) LEVEL OF SERVICE RESULTS

Table 4.3 summarizes the existing weekend peak hour service level calculations for the existing study intersections selected for focused analysis. These results are based on existing weekend traffic volumes and current street geometry. A review of Table 4.3 indicates that based on the HCM method of analysis and the LOS criteria mentioned in this report, some of the key existing study intersections currently operate at acceptable LOS during the AM and PM peak hours.

TABLE 4.3 EXISTING (WEEKEND) INTERSECTION PEAK HOUR LEVELS OF SERVICE SUMMARY

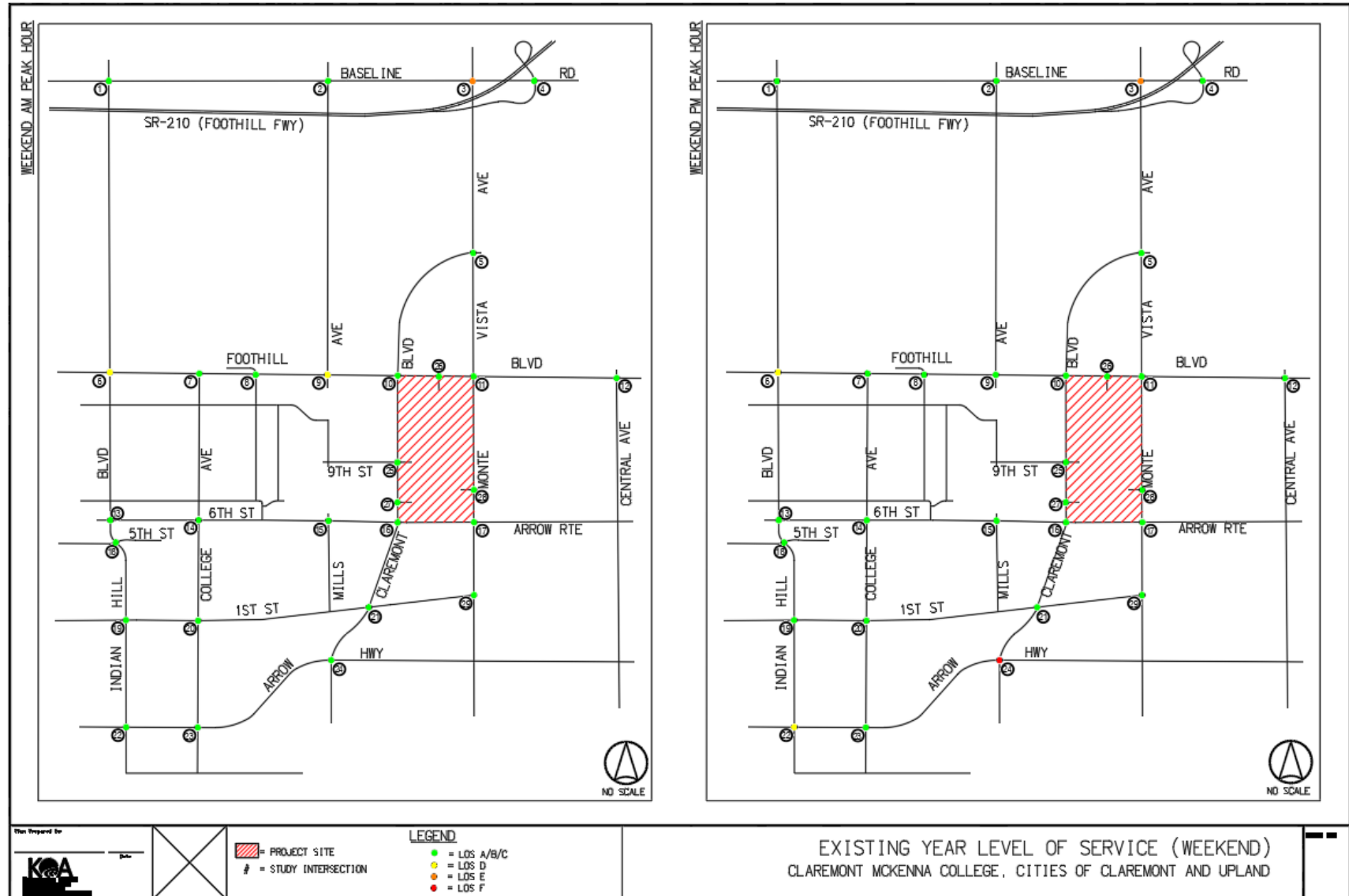
Study Intersections		Minimum Acceptable LOS	AM Peak Hour		PM Peak Hour	
			LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
1	Base Line Rd & Indian Hill Blvd	E	C	28.1	C	26.1
2	Base Line Rd & Mills Ave	E	B	15.0	B	14.7
3	Base Line Rd & Monte Vista Ave/Padua Ave	E	E	76.5	E	55.1
4	Base Line Rd & I-210 Ramp	E	B	11.2	B	10.6
5	Claremont Blvd & Monte Vista Ave	E	B	11.2	B	10.5
6	Foothill Blvd & Indian Hill Blvd	E	D	45.3	D	39.4
7	Foothill Blvd & College Ave	E	A	1.6	A	1.6
8	Foothill Blvd & Dartmouth Ave	E	B	12.8	B	13.6
9	Foothill Blvd & Mills Ave	E	D	36.5	C	29.6
10	Foothill Blvd & Claremont Blvd	E	B	17.9	B	17.2
11	Foothill Blvd & Monte Vista Ave	D	C	20.5	C	20.5
12	Foothill Blvd & Central Ave	D	C	24.2	C	22.9
13	6 th St & Indian Hill Blvd	D	A	1.2	A	1.5
14	6 th St & College Ave	D	A	10.0	A	9.9
15	6 th St & Mills Ave	D	A	8.3	A	8.4
16	6 th St/Arrow Rt & Claremont Blvd	D	B	15.7	B	15.9
17	Arrow Rt & Monte Vista Ave	D	B	14.6	B	14.3
18	Harrison Ave/5 th St & Indian Hill Blvd	D	B	10.6	A	9.9
19	1 st St & Indian Hill Blvd	D	B	13.9	B	12.6
20	1 st St & College Ave	D	B	10.7	B	11.8
21	1 st St & Claremont Blvd	D	A	7.3	A	7.3
22	Arrow Hwy & Indian Hill Blvd	E	C	29.5	D	42.2
23	Arrow Hwy & College Ave	E	B	12.4	C	29.1
24	Arrow Hwy & Claremont Blvd/Mills Ave	E	C	28.8	F	83.3
25	Claremont Blvd & 9 th St	D	A	2.0	A	2.0
26	Foothill Blvd & Project Dwy N	-	-	-	-	-
27	Claremont Blvd & Project Dwy SW	-	-	-	-	-
28	Monte Vista Ave & Project Dwy SE	-	-	-	-	-
29	Monte Vista Ave & 1 st St/Richton St	D	A	6.4	A	7.9

"-" Denotes that the proposed driveway intersection currently does not exist; therefore no LOS is reported.

Bold Delay/LOS values indicate unacceptable service levels based on LOS Criteria identified in this report.

Figure 4.9 graphically illustrates the existing weekend traffic conditions level of service results for AM and PM peak hours. **Appendix B** contains the Existing (Weekend) Traffic Conditions Delay/LOS calculation worksheets for the key existing study intersections.

FIGURE 4.9 EXISTING (WEEKEND) INTERSECTION LEVEL OF SERVICE – AM & PM PEAK HOURS



5.0 FUTURE CONDITIONS

This section defines the traffic that is expected to be generated by the proposed Project. The estimation of traffic volumes is completed through a three-step process, which includes trip generation, trip distribution, and trip assignment.

5.1 FUTURE TRAFFIC CONDITIONS

5.1.1 Ambient Traffic Growth

The ambient traffic growth factor is intended to account for unknown traffic-generating developments in the study area, as well as reflect regular socioeconomic growth the sub-region resulting in an increase in traffic volumes due to the development of projects outside the study area. A one percent (1%) annual growth rate was applied to the Existing Year 2023 traffic volumes to generate the base line Opening Year 2027 traffic volume conditions.

5.1.2 Cumulative Development Projects

Cumulative projects are defined as the collection of other related planned, approved, or otherwise pending trip-making development projects, which due to their close proximity within the study area, would constitute a shared impact on local traffic which must be accounted for in the analysis. Based on research and concurrence with the Cities of Claremont and Upland, there are thirty-three (33) such cumulative projects located within a two-mile radius of the project study area, in the Cities of Claremont and Upland. Thirty-two (32) of these projects were concluded to have the potential for adding measurable traffic to the area street system, and would do so in a timeframe after the performance of the “existing” traffic counts used in this study.

This traffic impact analysis assumes that the predominant majority of the cumulative projects will be developed and operational when the proposed Project is operational. As described in further detail below, some of the cumulative developments shown on the approved project list were identified as having a longer development timeframe, and were therefore included in the Horizon Year 2045 base line analysis. In addition, it should be noted that traffic impacts for these cumulative projects are likely to be, or have been, subject to mitigation measures or improvements or other measures were required, which could reduce their net potential impacts. Under this analysis, however, any such measures or improvements are conservatively not considered. The locations of the thirty-two (32) cumulative projects with measurable added traffic potential are presented in **Figure 5.1**.

Eighteen (18) out of 32 cumulative projects are located within the City of Claremont, while the remaining fourteen (14) cumulative projects are located in the City of Upland. All cumulative projects are divided between the Opening Year and Horizon Year based on the respective cumulative projects' opening year. Twenty-five (25) out of thirty-two cumulative projects were analyzed under the Opening Year scenario. **Table 5.1** identifies the locations and development totals of the thirty-two (32) cumulative projects. **Table 5.2** represents the resultant trip generation for all cumulative projects. As shown in Table 5.2, the cumulative projects are expected to generate a combined total of 38,801 daily trips on a typical weekday, with 2,969 trips (1,184 inbound and 1,786 outbound) forecast during the AM peak hour and 3,262 trips (1,871 inbound and 1,394 outbound) forecast during the PM peak hour. Table 5.2 also shows a total of 43,838 daily trips on a typical weekend, with 4,369 trips (2,358 inbound and 2,009 outbound) forecast

during the AM peak hour and 4,248 trips (2,093 inbound and 2,154 outbound) forecast during the PM peak hour.

It should be noted that the specific land uses, project descriptions and trip forecasts for many of the cumulative projects shown in Table 5.2 were, to the extent possible, extracted from the each project's formal traffic study report. As, such, these cumulative trips reflect a combination of project trip generation forecasts determined using the Trip Generation Manual, 10th or 11th Editions, as well as approved traffic studies on file with each respective City, as listed in Table 5.1. Further, for projects without documented trip generation forecasts, those forecasts were prepared as part of this study using the cumulative project descriptions as presented in Table 5.1.

TABLE 5.1 LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS

No.	Project Name	Address	City	Description
1	Arbor Pointe SFRs	210 @ Monte Vista (SWC)	Claremont	Tentative Tract Map and Design Review for 13 lot subdivision consisting of 13 SFRs, 13 JADUs, and 11 detached ADUs.
2	CGU Master Plan	Generally bounded by Foothill Blvd., Dartmouth Avenue, Seventh Street, and College Avenue	Claremont	Potential addition of up to 475 regularly enrolled students, and 99 faculty and staff, and expansion, remodeling, and replacement of campus facilities, resulting in a potential increase in building area of approximately 170,000 assignable square feet
3	Doubletree Hotel/Old School House Specific Plan	North of Foothill Blvd. and west of Indian Hill Blvd.	Claremont	126-unit residential condominiums/townhomes (30 in building with new 240-space parking structure and 96 on Colby Circle)
4	Harvey Mudd College 2015 Master Plan Amendment	South of E. Foothill Blvd. and north of Platt Blvd, between N. Dartmouth Avenue and N. Claremont Blvd.	Claremont	Proposed HMC 2015 Master Plan Amendment includes increasing current building floor area from 738,079 GSF to 902,411 903,911 GSF, and increasing HMC enrollment entitlement from 800 students to 900 students.
5	Keck Science Center Expansion	925 N Mills Avenue (to the west of existing KSC at NW intersection of Ninth Ave and Mills on Scripps campus	Claremont	70,000-square foot, three-story, semi detached ground up building for Keck Science Center labs and classrooms. Located on existing surface level parking lot. Connected to existing KSC.
6	Knight's Inn Redevelopment (formerly proposed as new Hampton Inn & Suites)	701 S Indian Hill Blvd	Claremont	Originally proposed to include renovation of the two-story, 65-unit motel and construction of a four-story, 121-unit hotel. Specific Plan has been adopted.
7	La Popular Restaurant & Drezner Lofts	235 N Yale Ave	Claremont	New 3,000-SF restaurant with 850-SF new outdoor dining area. The Mexican restaurant would occupy the former Rhino Records space. 1,660 s.f. Coffee Shop to occupy rear ground floor tenant space. 5 new studios apt to be constructed through conversion of existing mezzanine and two new stories above rear tenant space. Total square footage is 3,225-SF

8	Med Density Housing Per Gen Plan Housing Element Update.	Citywide	Claremont	1,711 New Housing Units Planned for through Oct 15, 2029
9	Olson 56 Unit Townhomes	1030 W Foothill Blvd.	Claremont	56 Attached Townhomes with 12 Live work units 350 sf each work live
10	Pomona College 2015 Master Plan	Campus-Wide	Claremont	Includes increase of 50 students, 60 staff and faculty, and 205,400 new square feet of campus building area
11	Senior Low Income Housing	956 W. Base Line Road	Claremont	15-unit low-income senior housing project
12	South Village Development Project	Indian Hill to Bucknell, Rail ROW to Arrow Highway.	Claremont	Mixed-Use, Transit-oriented Development designed to expand the Claremont Village. Project plans include: 610 Residential Apartments in Mixed-use buildings 103 Flat-style Residential condos 21 Townhome residences 34,000 sq.ft. restaurants 52,000 sq.ft. retail 26,000 sq.ft. office space 1,195 parking spaces in structures or garages.
13	Trumark Homes	2323 Forbes Ave	Claremont	56 SFR detached Units with 6 internal ADUs
14	City Ventures Townhomes	840 S Indian Hill Blvd	Claremont	65 townhomes. Proposed total Net SF is 92,880-SF
15	Larkin Place - Jamboree Permanent Supportive Housing	731 Harrison Ave	Claremont	33-unit permanent supportive housing development.
16	TCCS Student Services Building	800 N Dartmouth Ave	Claremont	New Student Services Building for Claremont Colleges students. Located at Mudd Quadrangle on Dartmouth south of 10th Street. Approx 30,000-SF
17	Mercy Housing Affordable Housing	1364 N Towne Avenue	Claremont	74-unit 100% Affordable Housing Development (Veteran Housing)
18	TTM62814	365 San Jose Ave	Claremont	13 new residential townhomes at 365 W. San Jose
20	Quick Quak Car Wash	950 Monte Vista Avenue	Upland	2,596 square foot automated drive-thru car wash with ancillary vacuum stations
21	Bridge Point Upland Project	NEC of Central/Foothill	Upland	A 201,096 square foot warehouse/parcel delivery service building
22	Lennar at the Enclave	W. Foothill Boulevard	Upland	Development of 192 residential units comprised of 116 detached condominium units and 76 attached condominium units on 15.6 acres.
23	Mixed Commercial/Industrial Development	1750-1780 W. Foothill Blvd	Upland	A 3,570 square foot retail building and four industrial condominium units within two multi-tenant industrial buildings 45,476 square feet and 55,616 square feet in size on 6.05 acres.
24	T & T Industrial	1701 W. 11th Street	Upland	2 office and warehouse buildings totaling 56,000 square feet

25	Yellow Iron	2068 W. 11th Street	Upland	5 building light industrial park totaling approximately 77,000 square feet, including a 6-lot subdivision
26	Rose Glen Specific Plan	1400 E. Arrow Hwy	Upland	64 two-story single family detached residential homes
27	Bullwinkle's Family Fun Center	1500 W. 7th Street	Upland	Remodel of existing amusement park, including façade, parking lot, and interior improvements.
28	Citrus Village Senior Living	911 W. Arrow Highway	Upland	Potential senior housing development with 62 affordable housing units, 98 independent living units, 74 assisted living units, and a 30-bed facility for memory care residents.
29	The Courtyard at Upland (Rebuild)	968 W. 7th Street	Upland	The partial reconstruction of 36 apartment units within an existing legally non-conforming multi-family apartment complex, damaged by fire
30	Huntington Drive Apartments	1910 Huntington Drive	Upland	An 84-units, 3-story, multi-family residential apartment development on 1.38 acres. The developer proposes that 14 units are to be designated at the low-income affordability level
31	Upland Reliability Project	1975 N. Benson Ave	Upland	Construction and operation of a new battery energy storage system facility. The project includes the placement of battery energy storage enclosures and associated electrical equipment on concrete foundations, including medium voltage transformers and power conversation system, on an area approximately 12 acres in size
32	9th Street Apartments	1739 9th Street	Upland	A request to construct a 19-unit, 2-story apartment complex, with a density bonus, and 2 units made available at the low-income affordability level.
33	McDonalds	1590 W. Foothill Boulevard	Upland	Demolition of an existing 1,471 square foot McDonald's restaurant and construction of a new 4,266 square foot McDonald's restaurant with indoor dining and dual order point drive-through

FIGURE 5.1 LOCATION OF CUMULATIVE PROJECTS

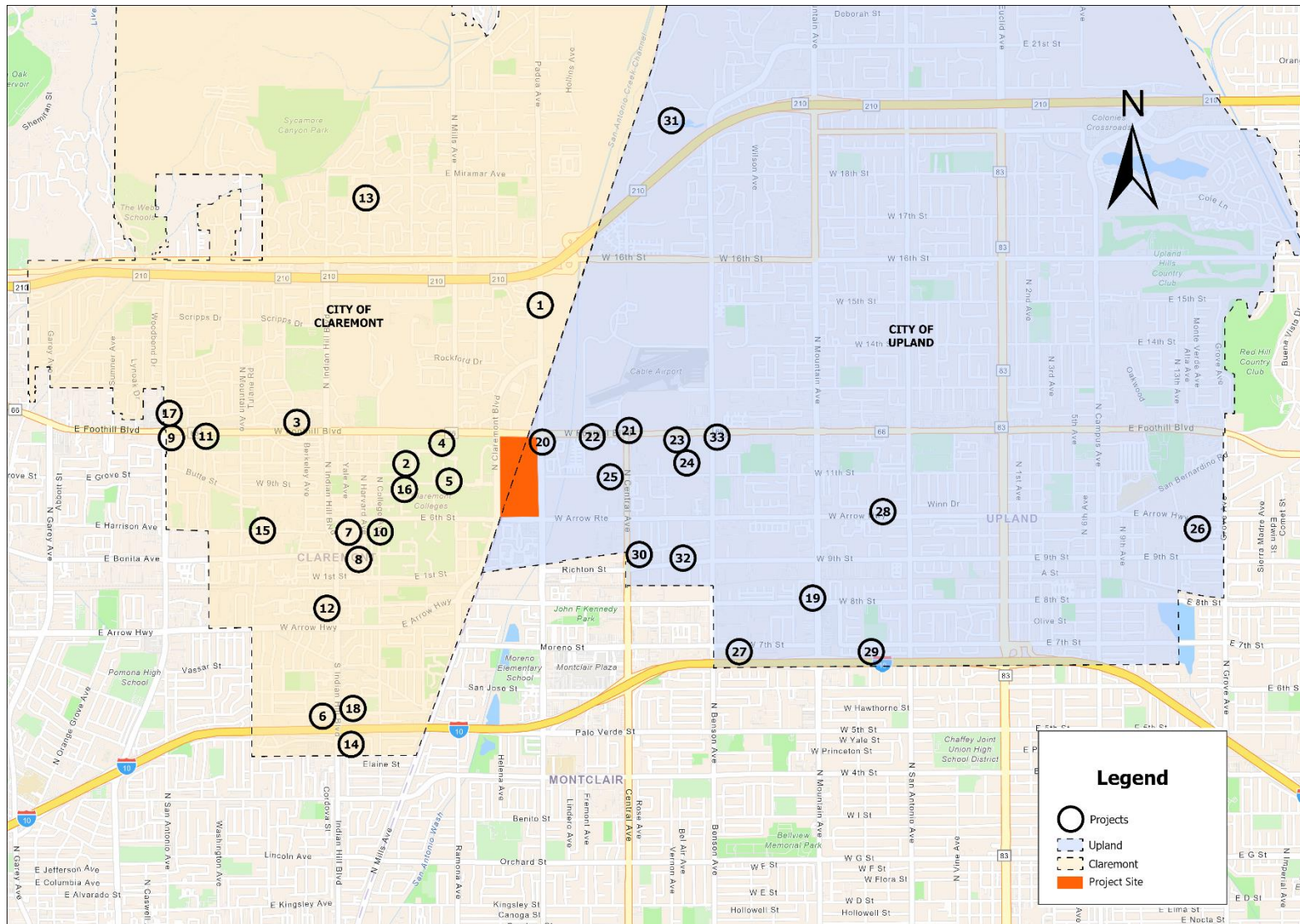


TABLE 5.2 CUMULATIVE PROJECTS TRIP GENERATION FORECAST

Project Name	Weekday Trip Generation							Weekend Trip Generation ³						
	Daily 2-way	AM Peak Hour			PM Peak Hour			Daily 2-way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total		In	Out	Total	In	Out	Total
1. Arbor Pointe SFRs	349	6	20	26	22	13	35	351	18	16	34	16	14	30
2. CGU Master Plan	741	57	14	71	24	48	72	0	0	0	0	0	0	0
3. Double Tree Hotel/Old School House	849	13	38	51	40	24	64	573	26	26	52	23	23	46
4. Harvey Mudd College 2015 Master Plan Amendment	156	12	3	15	5	10	15	0	0	0	0	0	0	0
5. Keck Science Center Expansion	1823	59	17	76	26	56	82	0	0	0	0	0	0	0
6. Knight's Inn Redevelopment	967	31	25	56	36	35	71	976	49	38	87	43	33	76
7. La Popular Restaurant & Drezner Lofts	346	17	14	31	6	11	17	395	18	18	36	16	16	32
8. Med density Housing Per gen Plan Housing Element Updat ¹	12133	274	751	1025	735	457	1192	18403	1074	812	1886	944	1083	2027
9. Olson 56 Unit Townhomes	358	8	19	27	17	12	29	385	12	13	25	11	11	22
10. Pomona College 2015 Master Plan	78	6	2	8	3	5	8	0	0	0	0	0	0	0
11. Senior Low Income Housing	49	1	2	3	2	2	4	41	3	2	5	3	2	5
12. South Village Development Project	7509	206	339	545	357	172	527	10534	533	500	1033	469	440	908
13. Trumark Homes	614	12	33	45	37	23	60	596	31	27	58	27	24	51
14. City Ventures Townhomes	438	6	20	26	21	12	33	296	13	13	26	11	11	22
15. Larkin Place - Jamboree Permanent Supportive Housing	73	2	1	3	3	3	6	0	0	0	0	0	0	0
16. TCCS Student Services Building	431	54	17	71	10	51	61	0	0	0	0	0	0	0
17. Mercy Housing Affordable Housing	356	8	19	27	20	14	34	888	56	39	95	49	34	84
18. TTM62814	95	1	5	6	4	3	7	59	3	3	6	3	3	6
20. Quick Quak Car Wash	610	0	0	0	31	30	61	1140	65	65	130	57	57	114
21. Bridge Point Upland Project	2583	102	100	202	131	71	202	0	0	0	0	0	0	0
22. Lennar at the Enclave	1294	19	58	77	61	36	97	1820	95	81	176	84	71	155

23. Mixed Commercial/Industrial Development	1050	57	47	104	41	38	79	2218	105	99	205	92	87	179
24. T & T Industrial	349	17	21	38	11	27	38	142	8	17	25	7	15	22
25. Yellow Iron	482	26	25	51	15	36	51	196	11	23	34	10	20	30
26. Rose Glen Specific Plan	604	12	33	45	38	22	60	607	32	27	59	28	24	52
27. Bullwinkle's Family Fun Center	653	29	15	44	27	30	57	206	13	11	24	11	10	21
28. Citrus Village Senior Living	1008	19	38	57	43	27	70	665	28	28	56	25	25	50
29. The Courtyard at Upland (Rebuild)	243	3	11	14	12	7	19	164	7	7	14	6	6	12
30. Huntington Drive Apartments	566	8	26	34	27	16	43	382	17	17	34	15	15	30
31. Upland Reliability Project	894	68	20	88	26	68	94	78	17	9	26	15	8	23
32. 9th Street Apartments	142	2	6	8	7	4	11	96	4	4	8	4	4	8
33. McDonalds ²	958	49	47	95	33	31	63	2628	120	115	235	105	101	206
Total	38801	1184	1786	2969	1871	1394	3262	43838	2358	2009	4369	2073	2136	4210

¹ Per Table 8-30 *City of Claremont 2021-2029 Housing Element Draft*, 1,711 new housing units are required for Claremont's Regional Housing Needs Allocation (RHNA) of which at least 50% (556 DU's) allocated to very low-income units. The City of Claremont intends to provide 548 dwelling units for Above Moderate-Income, 297 units for Moderate-Income, 310 units for Low-Income, 278 units for Very Low-Income, and 278 units for Extremely Low-Income. We have assumed that Above Moderate-Income and Moderate-Income units will be provided as Single-Family Residence and that Low-Income, Very Low-Income, and Extremely Low-Income units will be provided as affordable housing, for a conservative analysis.

² Pass-by rate of 50% was used for the a.m. peak hour and a pass-by rate of 55% was used for the p.m. peak hour. Since daily pass-by rates are not available for this land use in the ITE Trip Generation Manual, the average of a.m. and p.m. pass-by rate was used as the daily pass-by rate.

³ Weekend PM trip calculated by roadway segments' Average Daily Traffic (ADTs) volumes between study intersections average ratio and multiplied by the weekdays PM trip generation to get weekend PM trip generation.

5.2 PROJECT TRIP FORECASTING

5.2.1 Project Trip Generation Methodology

The Project will be used to support the needs of an otherwise existing college community and population (recognizing further that approved or pending campus Master Plans may add incrementally to that population) for general recreation, physical education, team practice, and scheduled team play. With regard to the latter, the primary user group will be CMS Athletics (made up by Claremont McKenna College, Harvey Mudd College, and Scripps College) whose activities will be focused to the Project's venues as a replacement for other existing play fields. Additionally, the site will be utilized for other CMC collegiate athletic programs such as the Claremont Colleges Club Sports.

It should be noted that recurring team play schedules of CMS Athletics and Claremont Colleges Club sports are already in place with those activities now occurring in other fields on the CMC campus. On that basis, the forecasts that follow have been constructed to be conservative estimates of the traffic that will be directed to these new facilities. The Project football/track/lacrosse field, baseball, and softball fields will have additional seating capacity as compared to existing capacity, and the Project traffic forecasts consider those expanded capacities (rather than historical attendance levels) in their derivation.

The process to identify the trips for games during the weekday and weekend peak hours:

- The Project components with significant traffic generation potential are identified, including CMC spectator venues (soccer/football/track/lacrosse, baseball, and softball), and support facilities.
- The HCM 6th Edition of Trip Generation by the Institute of Transportation Engineers (ITE) is used to determine trip generation rates for the Project except at the intersection of Monte Vista Avenue at Claremont Boulevard and Central Avenue at Foothill Boulevard. HCM 6th Edition methodology does not support turning movements with shared and exclusive lanes. 'Soccer Complex' used HCM 6th Edition to generate weekday and weekend AM-PM peak hour trip rates.
- The football/track/lacrosse, baseball, and softball fields, are not specifically considered by ITE. Instead, trip forecasting for these components was carried out in a series of analysis permutations that considered historical practice schedules, combined current CMS Athletics game schedules for play on those fields, team, and coaching staff totals, increased game attendance with a further distinction between weekday versus weekend characteristics, walk-in versus vehicular traffic proportions.
- Due to relatively modest weekday spectator attendance, the existing weekday traffic volumes related to CMS and/or Claremont Colleges Club Sports games are also concluded to be small, particularly during the commuter peak hours. On that basis, and as a conservative measure, any potential "credit" due to the existing sports activity underway during the collection of traffic counts used in this study has been ignored.

Using the above methodology, four (4) trip generation scenarios emerged as best representing the range of traffic activity thresholds for the Project. These scenarios are framed around the usage patterns of the four primary CMS fields (football/track/lacrosse, soccer/rugby, baseball, and softball), and the multi-purpose fields. Those scenarios are listed below:

1. Weekday: Practice Day

Baseball and softball are Spring sports and taken together with Spring football practice, track and field as well as Club Sports (rugby) practice activity, these combined practice and

weekday play schedules in the presence of other Roberts Campus East activities would exceed that of other sports at other times of the year. As such, they have been used to define a "Practice Day" weekday scenario. That other activity would not include scheduled games with visiting teams, but as a worst case could include spring football practice or track and field practice (both have team and coaching squads totaling roughly 100 participants; other sport squad totals are much less). Practices start about mid-afternoon and typically end at or after 6 PM. As a conservative measure, this scenario assumes that all vehicular traffic related to practices throughout the complex will exit the site during the weekday PM commuter hour peak. Club Sports Rugby also has a spring game schedule. Practices occur on weekday afternoons, and available schedule information indicates that conference play is on weekends.

2. Weekday: Game Day

Building on the above weekday scenario, the "Game Day" scenario further includes additional traffic activity for visiting teams and a "full house" event on either the baseball or softball field. As a worst case, this scenario further assumes that the "full house" game will end, and its traffic will exit the site in the PM commuter peak hour. While the Weekday "Game Day" scenario assumes 500 spectators total for simultaneous baseball and softball games, it is worth noting that actual historical weekday attendance levels for these sports are on the order of one-fourth to one-eighth of this planned 500-seat capacity (250 capacity for each baseball and softball). Those actual attendance levels may be influenced by the weekday/workday character of the event as well as the reality that weekday afternoon games are underway when other Claremont College students are still in class, and thus not able to attend a game.

3. Weekend: Game Day (Fall)

On a weekend, traffic activity related to the approximately five home Saturday football games will dominate as the basis of a traffic impact analysis. This study assumes a "full house" of the 1,800-spectator seating capacity of that field. Games are typically at 1 PM and end around 4 PM. Some night games (7 PM start) may also occur, but since evening traffic on the surrounding street system is generally less than during the afternoon, the afternoon football game is the focal point of the Weekend Fall-based traffic impact analysis.

4. Weekend: Game Day (Spring)

Simultaneous baseball and softball games (both with a "full house" of 250 spectators each) will dominate the Saturday picture on a Spring weekend. The one soccer/rugby field is assumed to add 500 spectators with a combined attendance potential for these three fields of 1,000 spectators (250+250+500).

5.2.2 Project Trip Generation

The Project trip generation forecasts for the four (4) scenarios described above are summarized in **Table 5.3**. The trip-making components that make up each scenario are also shown. Table 5.3 presents the basis of the trip-making forecast for each component and includes the use of ITE trip factors as well as the sport, team, practice, and game parameters for each field.

Among the ITE factors are those from Land Use Code 488. The former is for a "Soccer Complex", but the description for this code is concluded to closely align with the included components of the CMC fields and facilities. In its application, a 50 percent overlap ("walk-in") factor has been applied, which converts the freestanding nature of the ITE field study site to the support nature of the proposed parking facilities.

5.2.2a Weekday: Practice Day

As presented in Table 5.3, the “Weekday: Practice Day” trip forecasts over a 24-hour period, this scenario is forecast to add 359 daily trips during a typical “Practice” weekday. As defined above, this scenario and its related trips reflect practice activities on all four spectator fields (but without any scheduled gameplay), as well as Club Sports (rugby) practice. Its frequency would be on the order of four weekdays per week.

5.2.2b Weekday: Game Day

The “Weekday: Game Day” scenario addresses Project traffic activity on the fifth weekday of that illustrative week. Substitution of a “full house” baseball or softball game, with a Spring football practice or track and field practice on the four spectator fields, would increase the weekday PM peak hour Project trip generation to 260 trips, and the daily generation to 559 trips. These trip totals are also consistent with occasional simultaneous baseball and softball games with a combined attendance of 500 spectators, and a home as well as a visitor team on each of those two fields. This scenario illustrated the “worst case” weekday condition for the proposed Project’s Game Day activities.

5.2.2c Weekend: Game Day [Fall]

Looking further at Table 5.3, the defining “worst case” weekend scenario (occurring roughly five Fall Saturdays per year) is that of a “full house” home football game (“Weekend: Game Day-Fall). On such days, the 24-hour trip generation total would grow to a forecast of 947 trips (evenly divided between inbound and outbound movements), with 377 trips occurring in the hour before the start of the game, and 535 trips in the hour following it.

5.2.2d Weekend: Game Day [Spring]

The more frequent weekend scenario, but with trip generation potential less than one-half of its fall counterpart, is that of the “Weekend: Game Day (spring)” scenario. Its 24-hour trip-making potential would total 593 trips (one-half arriving and one-half departing), with 237 trips forecast for the peak arrival hour, and 321 trips forecast for the peak departure hour.

TABLE 5.3 PROJECT TRIP GENERATION FORECAST SUMMARY

Claremont-McKenna College Roberts Campus East / Roberts Campus Sports Bowl Trip Generation Rates and Forecast																
Description	Unit	ITE Land Use Code*	Weekday							Weekend						
			Daily 2-way	AM Peak Hour			PM Peak Hour			Daily 2-way	AM Peak Hour			PM Peak Hour		
				Trip Rates							Trip Rates					
				Total	In	Out	Total	In	Out		Total	In	Out	Total	In	Out
Soccer Complex	Fields	488	71.33	0.99	1	0	16.43	11	5	109.17	37.48	18	19	37.48	6	31

*Source: Institute of Transportation Engineers Trip Generation, 11th Edition

Estimated 15% Inbound, 85% Outbound for PM peak hour (Weekend)

Description	Qty	Daily 2-way	Weekday						Daily 2-way	Weekend						Notes	
			AM Peak Hour			PM Peak Hour				AM Peak Hour			PM Peak Hour				
			Total	In	Out	Total	In	Out		Total	In	Out	Total	In	Out		
<i>Weekday: Practice Day</i>																	
Multi-Purpose Field	1	71	1	1	0	16	11	5	Not Applicable	ITE: Land use code 488: Soccer Complex, Weekday							
Baseball Field (Participants)	100	50	-	-	-	25	-	25		- Team size (Including coaches): Baseball @100, Softball @ 100, Football (or Track and Field) @ 250;							
Softball Field (Participants)	100	50	-	-	-	25	-	25		- 50% walk-in; 50% Drive-in @ 2.0/car							
Football/Track and Field/Lacrosse (Participants)	250	126	-	-	-	63	-	63									
Soccer/Rugby (Participants)	100	50	-	-	-	25	-	25		- Team size (Including coaches): Soccer/Rugby @ 100;							
Golf Practice (Participants)	25	12	-	-	-	6	-	6		- 50% walk-in; 50% Drive-in @ 2.0/car							
Weekday: Practice Day Total	359	1	1	0	160	11	149										
<i>Weekday: Game Day</i>																	
Multi-Purpose Field (Participants)	1	71	1	1	0	16	11	5	Not Applicable	ITE: Land use code 488: Soccer Complex, Weekday							
Baseball (250 Spectators)	250	156	-	-	-	78	-	78		- 500 maximum weekday spectators for Baseball and/or Softball (could all be at one-field, or split among fields), 50% walk-in, 50% drive-in @ 2.5/car. 1 bus (40 passenger=2.5 PCE, Visiting team traffic = 2.5 cars)							
Softball (250 Spectators)	250	156	-	-	-	78	-	78									
Football/Track and Field/Lacrosse (Participants)	250	126	-	-	-	63	-	63		- Football (or Track and Field) @ 250;							
Soccer/Rugby (Participants)	100	50	-	-	-	25	-	25		- 50% walk-in and 50% Drive-in @ 2.0/car							
										- Team size (Including coaches): Soccer/Rugby @ 100;							
Weekday: Game Day Total	559	1	1	0	260	11	249										
<i>Weekend: Game Day (Fall)</i>																	
Multi-Purpose Field (Participants)	1	Not Applicable							109	37	18	19	37	6	31	ITE: Land use code 488: Soccer Complex, Weekend	
Football (1,800 Spectators)	1800								610	240	240	-	370	-	370	- Weekend at full stadium capacity (1,800 seats), 50% walk-in, 50% drive-in @ 3.0/car, 80% arrive in hour before, 20% arrive 1-2 hours before, 100% depart the end of game. 1 bus (40 passenger=2.5 PCE, Visiting team traffic = 3*2.5=7.5 cars)	
Soccer/Rugby (Spectators)	500								228	100	100	-	128	-	128	- 500 weekend spectators/field, 50% walk-in, 50% drive-in @ 2.5/car. 1 bus (40 passenger=2.5 PCE, Visiting team traffic = 2.5 cars)	
Weekend: Game Day (Fall) Total									947	377	358	19	535	6	529		
<i>Weekend: Game Day (Spring)</i>																	
Multi-Purpose Field (Participants)	1	Not Applicable							109	37	18	19	37	6	31	ITE: Land use code 488: Soccer Complex, Weekend	
Baseball (250 Spectators)	250								128	50	50	-	78	-	78	- 500 weekend spectators/field, 50% walk-in, 50% drive-in @ 2.5/car. 1 bus (40 passenger=2.5 PCE) Visiting team traffic = 2.5 cars	
Softball (250 Spectators)	250								128	50	50	-	78	-	78		
Rugby Field (500 spectators X1 Field)	500								228	100	100	-	128	-	128	- 500 weekend spectators/field, 50% walk-in, 50% drive-in @ 2.5/car. 1 bus (40 passenger=2.5 PCE) Visiting team traffic = 2.5 cars	
Weekend: Game Day (Spring) Total								593	237	218	19	321	6	315			

[1] Based on maximum spectator occupancy of 1,800 seats

[2] Based on maximum spectator occupancy of 250 seats per field

5.2.3 Project Trip Distribution and Assignment

Trip distribution determines the inbound and outbound directional orientation of Project-related traffic. It is typically influenced by the location, intensity of use, and accessibility of existing and planned site users, population areas, employment centers, and other commercial activities. Traffic assignment is the determination of specific trip routes, given the previously developed traffic distribution pattern. Primary factors in route selection involve the generalized travel directions; quality, visibility and appropriateness of specific routes within the local street context; minimum travel times; and minimum distance paths.

Figure 5.1 presents the trip distribution pattern for the proposed Project, based on discussions and input from CMC and the Cities of Claremont and Upland. Project traffic volumes entering and exiting the Project site were distributed and assigned to the adjacent street system in the traffic model based on the following additional considerations:

- The site's proximity to key traffic carriers (i.e., Claremont Boulevard, Monte Vista Avenue, Foothill Boulevard, Arrow Route, Sixth Street and other arterial streets);
- An analysis of existing traffic volume patterns and distributions on the arterial street and neighborhood roadway-intersection network;
- Expected localized traffic flow patterns based on adjacent street channelization, presence of traffic signals (including the proposed main entrance traffic signal at Claremont/Ninth), and various turn restrictions at the study intersections;
- Driveway site access taken directly from Foothill Boulevard, Claremont Boulevard at Monte Vista Avenue; and
- Relative proximity of the site's proposed access driveways to on-site parking lot areas, and nearby athletics fields and facilities.

Figure 5.1 presents the approved trip distribution pattern for the proposed Project. The percentages illustrated in Figure 5.1 focus on the key intersection list of this study and show the percentage of forecast project trips expected to be added to each indicated movement. Percentage allocations to the "mid-block" locations adjoining each of the key intersections would be consistent with the indicated values.

5.2.3a Project Traffic (Weekday: Practice Day)

The anticipated AM and PM peak hour Project (Weekday: Practice Day) volumes at the key study intersections are presented in **Figures 5.2** and **5.3**, respectively. The traffic volume assignments presented in the above-mentioned figures reflect the traffic distribution characteristics shown in Figure 5.1 and the traffic generation forecast presented in Table 5.3.

FIGURE 5.1 PROJECT TRIP DISTRIBUTION

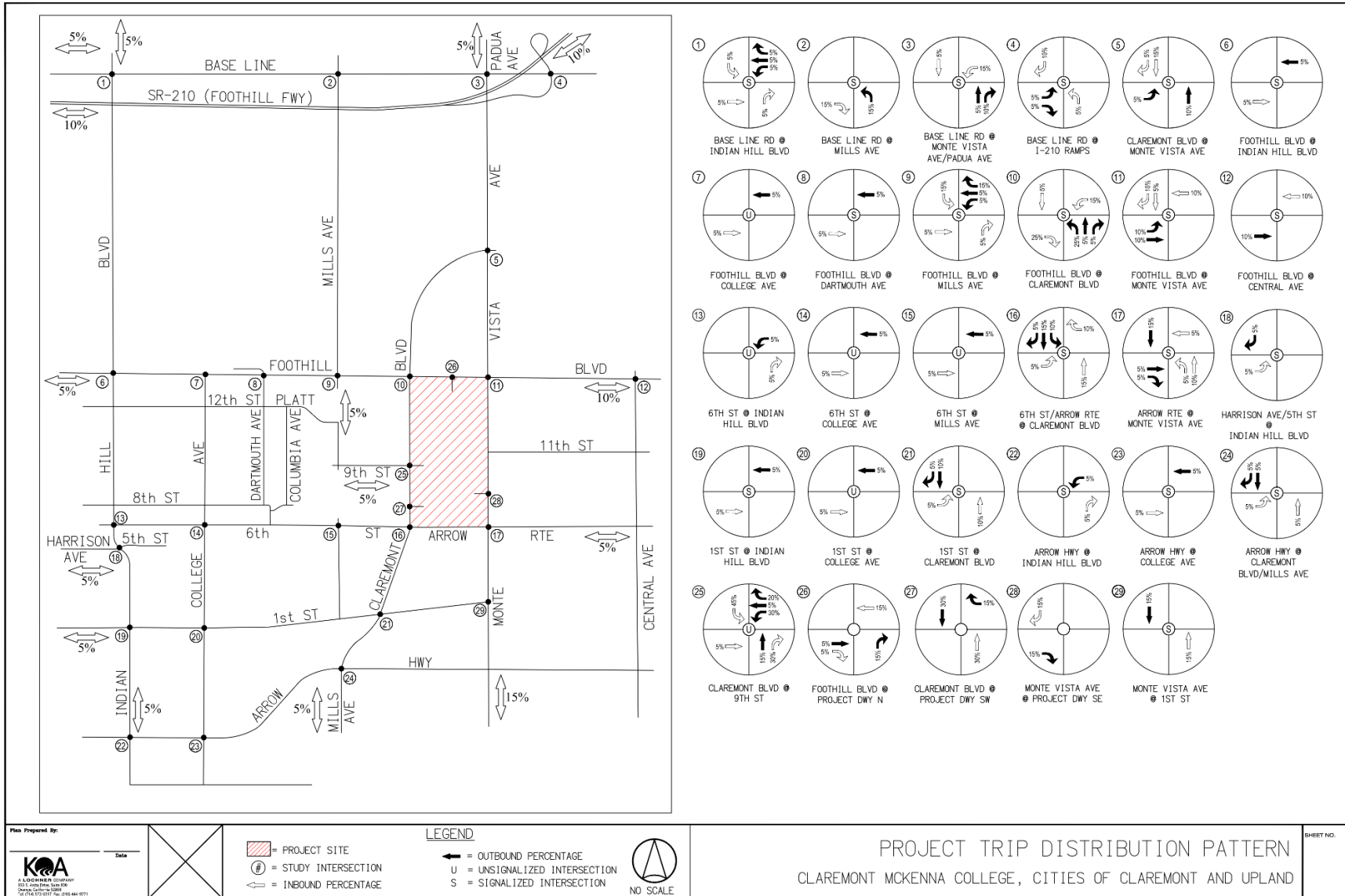


FIGURE 5.2 PROJECT TRIP ASSIGNMENT (WEEKDAY: PRACTICE DAY) – AM PEAK HOUR

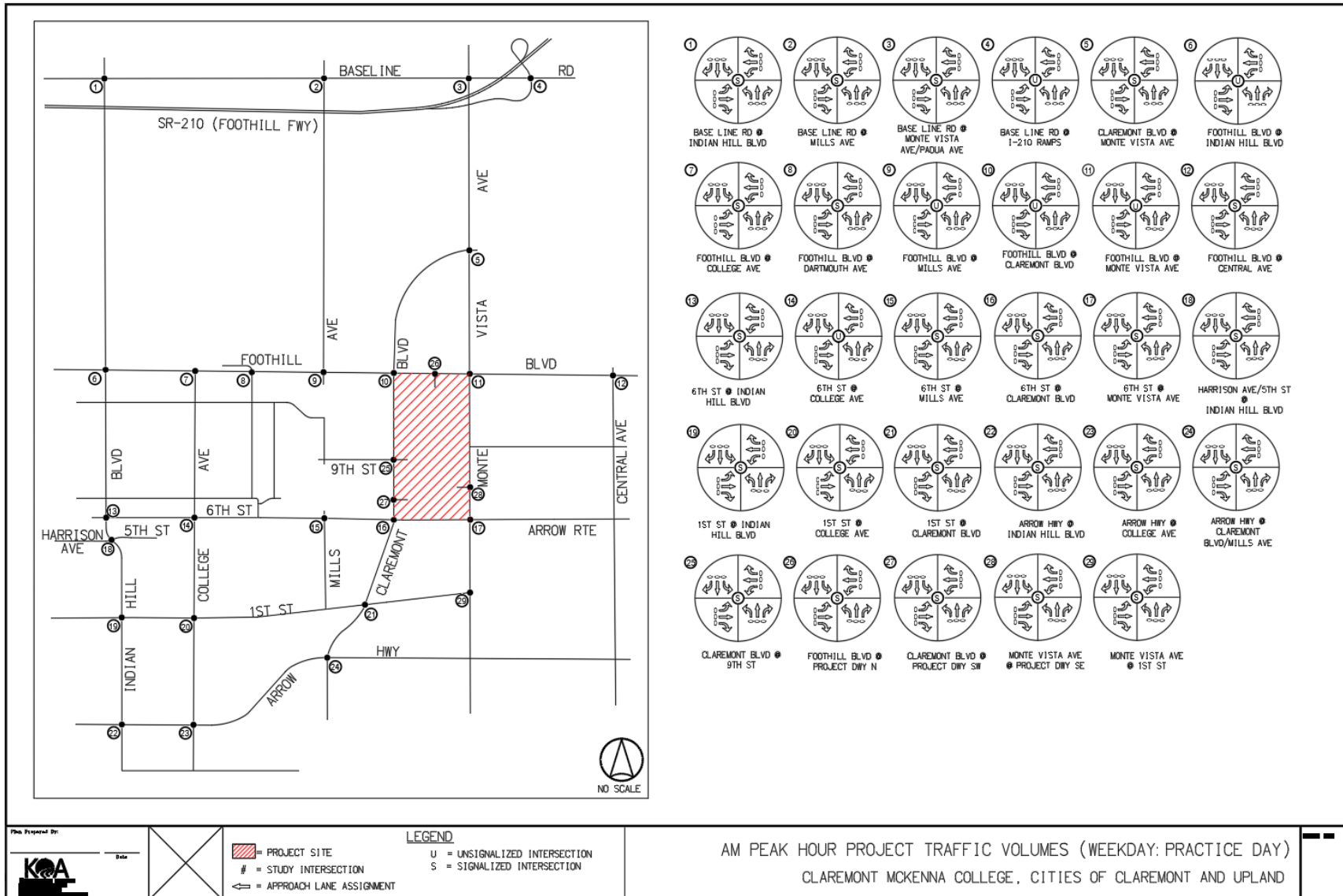
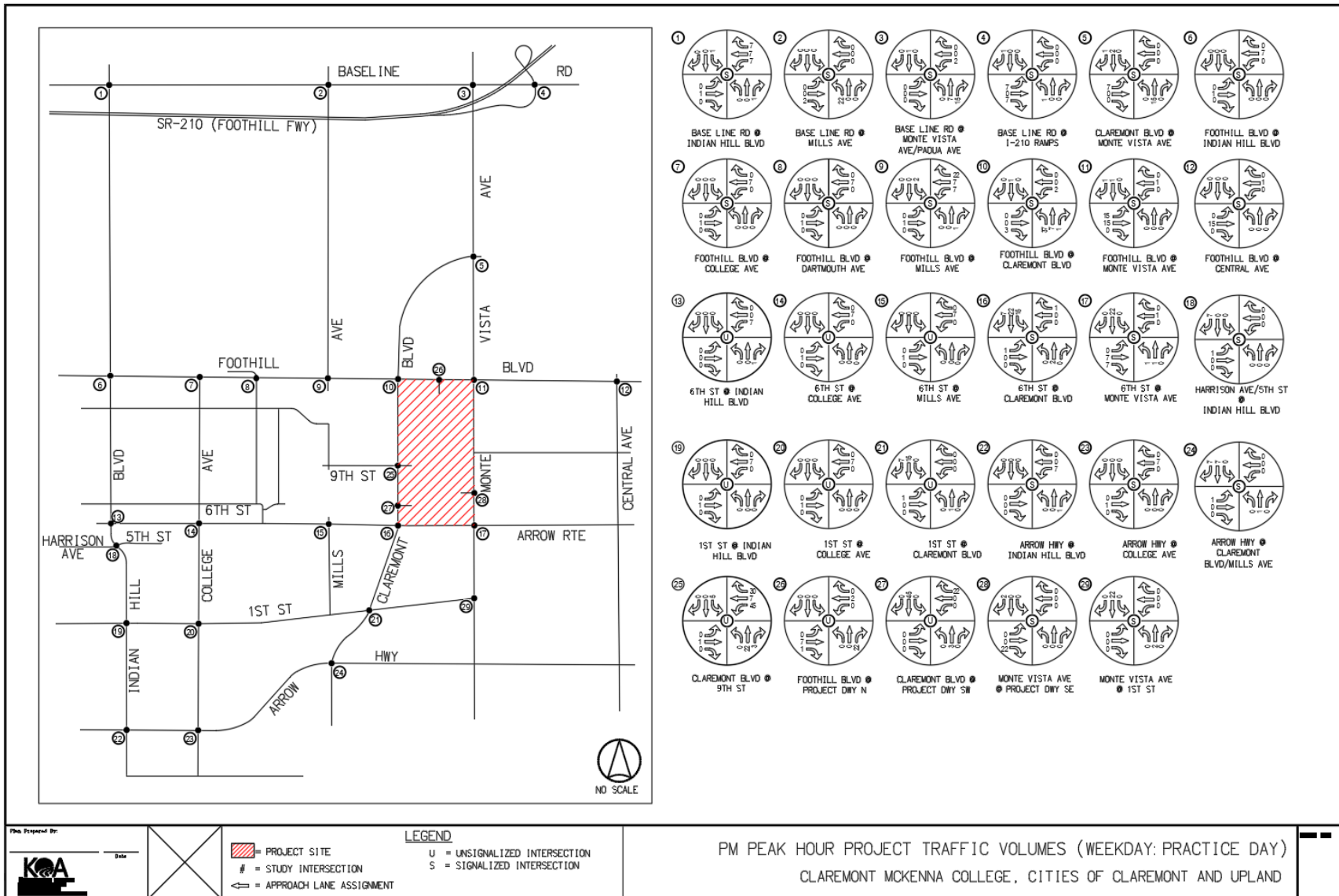


FIGURE 5.3 PROJECT TRIP ASSIGNMENT (WEEKDAY: PRACTICE DAY) – PM PEAK HOUR



5.2.3b Project Traffic (Weekday: Game Day)

The anticipated AM and PM peak hour Project (Weekday: Game Day) volumes at the key study intersections are presented in **Figures 5.4** and **5.5**, respectively. The traffic volume assignments presented in the above-mentioned figures reflect the traffic distribution characteristics shown in Figure 5.1 and the traffic generation forecast are presented in Table 5.3.

5.2.3c Project Traffic (Weekend: Game Day [Fall])

The anticipated AM and PM peak hour Project (Weekend: Game Day [Fall]) volumes at the key study intersections are presented in **Figures 5.6** and **5.7**, respectively. The traffic volume assignments presented in the above-mentioned figures reflect the traffic distribution characteristics shown in Figure 5.1 and the traffic generation forecast presented in Table 5.3.

5.2.3d Project Traffic (Weekend: Game Day [Spring])

The anticipated AM and PM peak hour Project (Weekend: Game Day [Spring]) volumes at the key study intersections are presented in **Figures 5.8** and **5.9**, respectively. The traffic volume assignments presented in the above-mentioned figures reflect the traffic distribution characteristics shown in Figure 5.1 and the traffic generation forecast presented in Table 5.3.

FIGURE 5.4 PROJECT TRIP ASSIGNMENT (WEEKDAY: GAME DAY) – AM PEAK HOUR

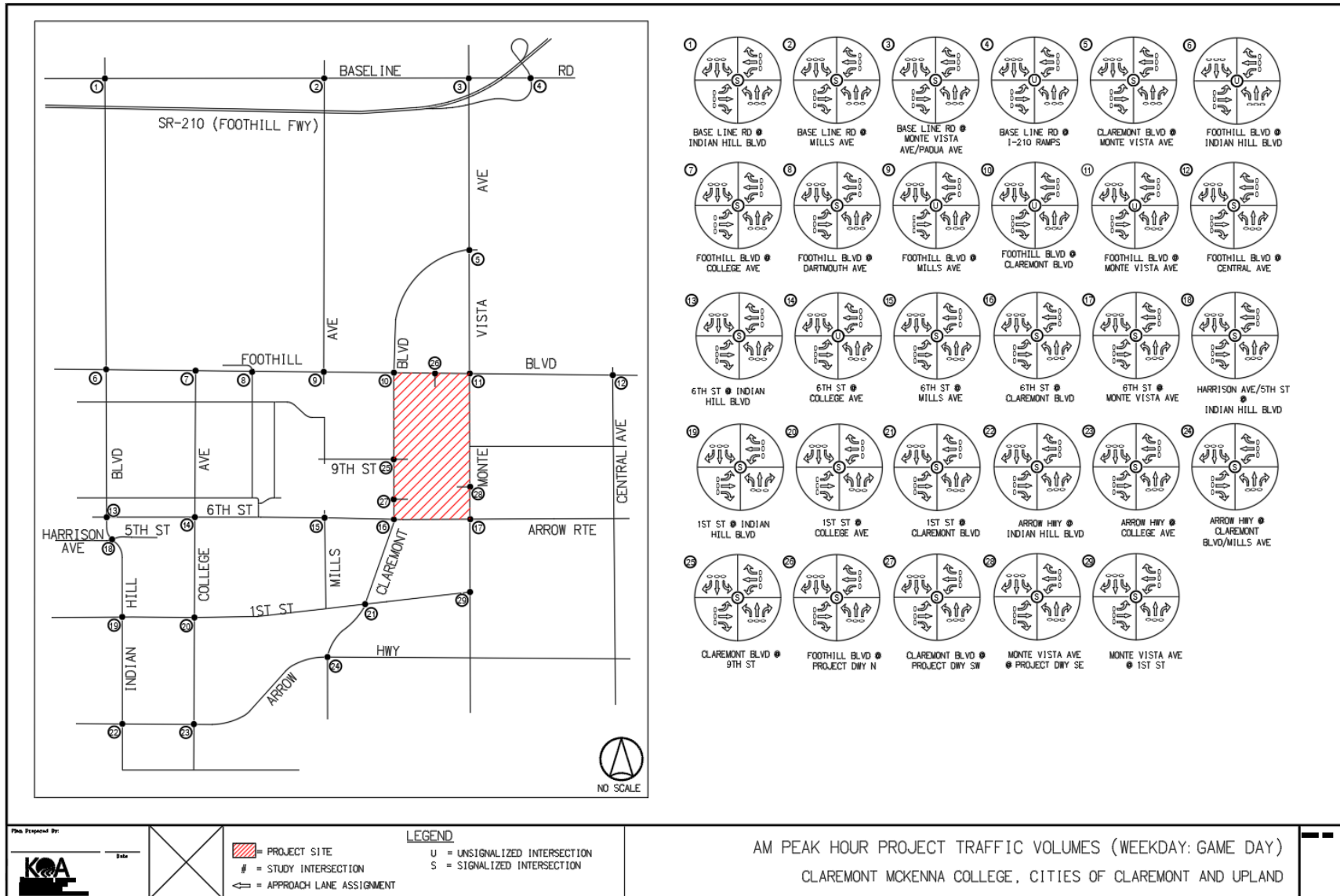


FIGURE 5.5 PROJECT TRIP ASSIGNMENT (WEEKDAY: GAME DAY) – PM PEAK HOUR

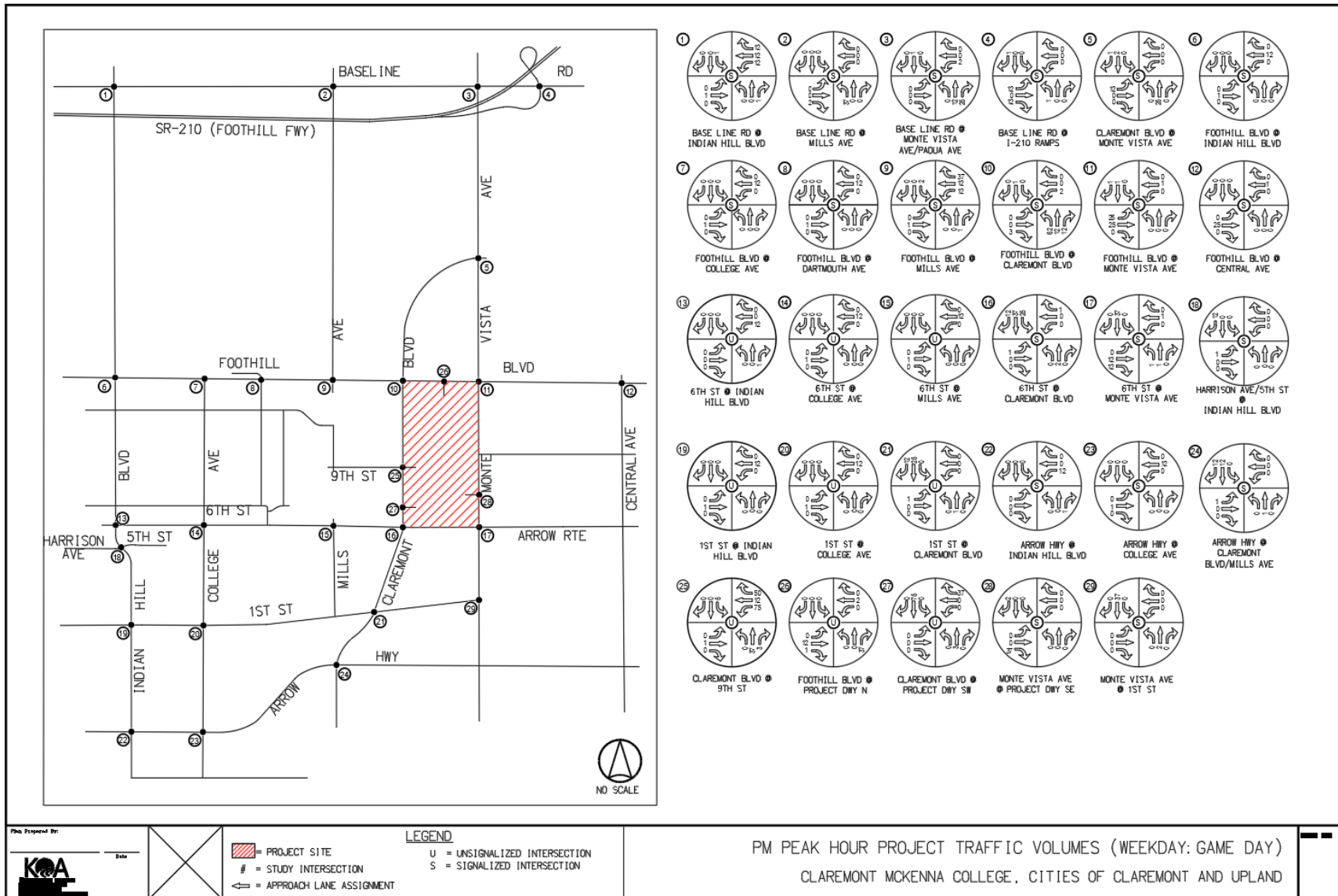


FIGURE 5.6 PROJECT TRIP ASSIGNMENT (WEEKDAY: GAME DAY [FALL]) – AM PEAK HOUR

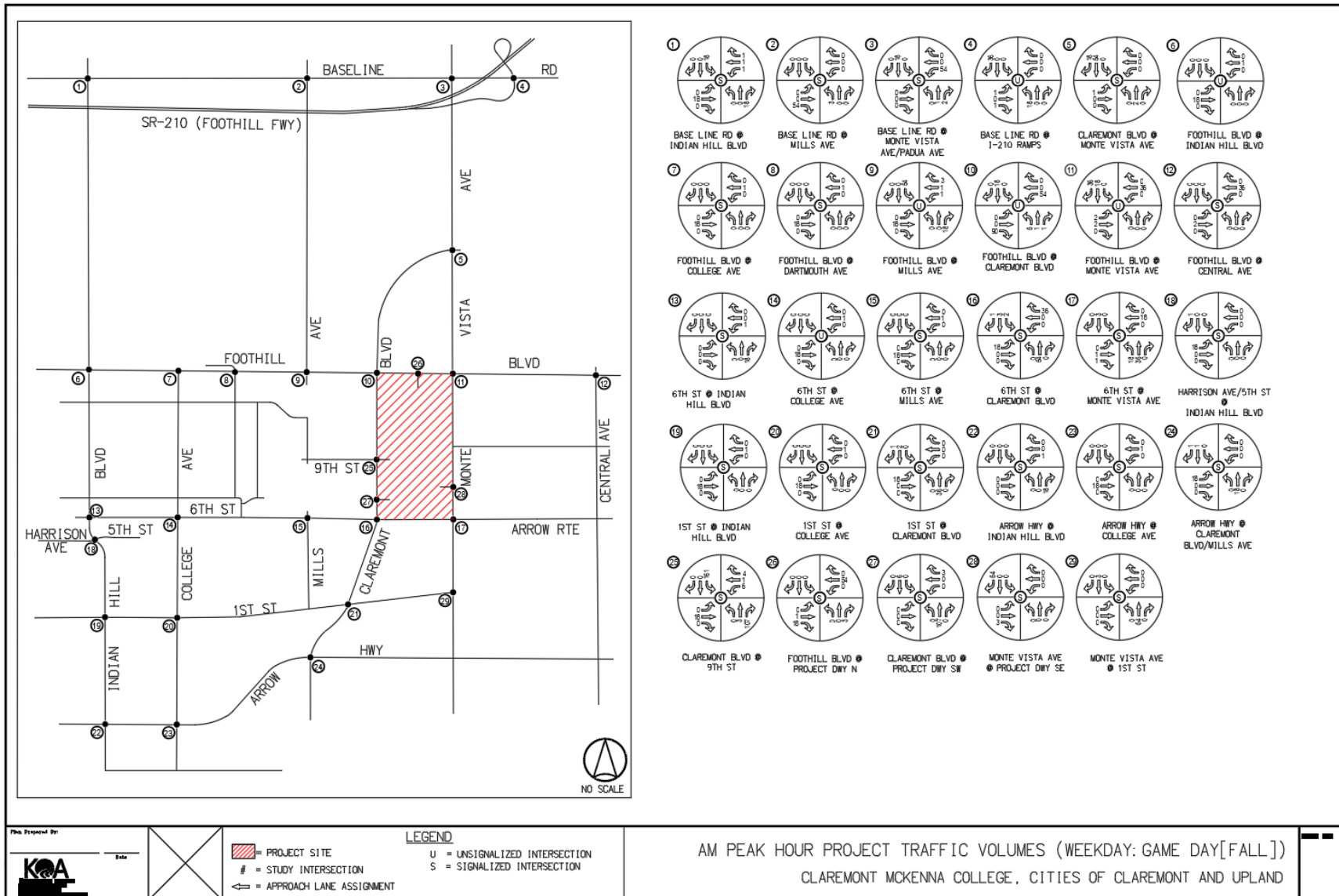
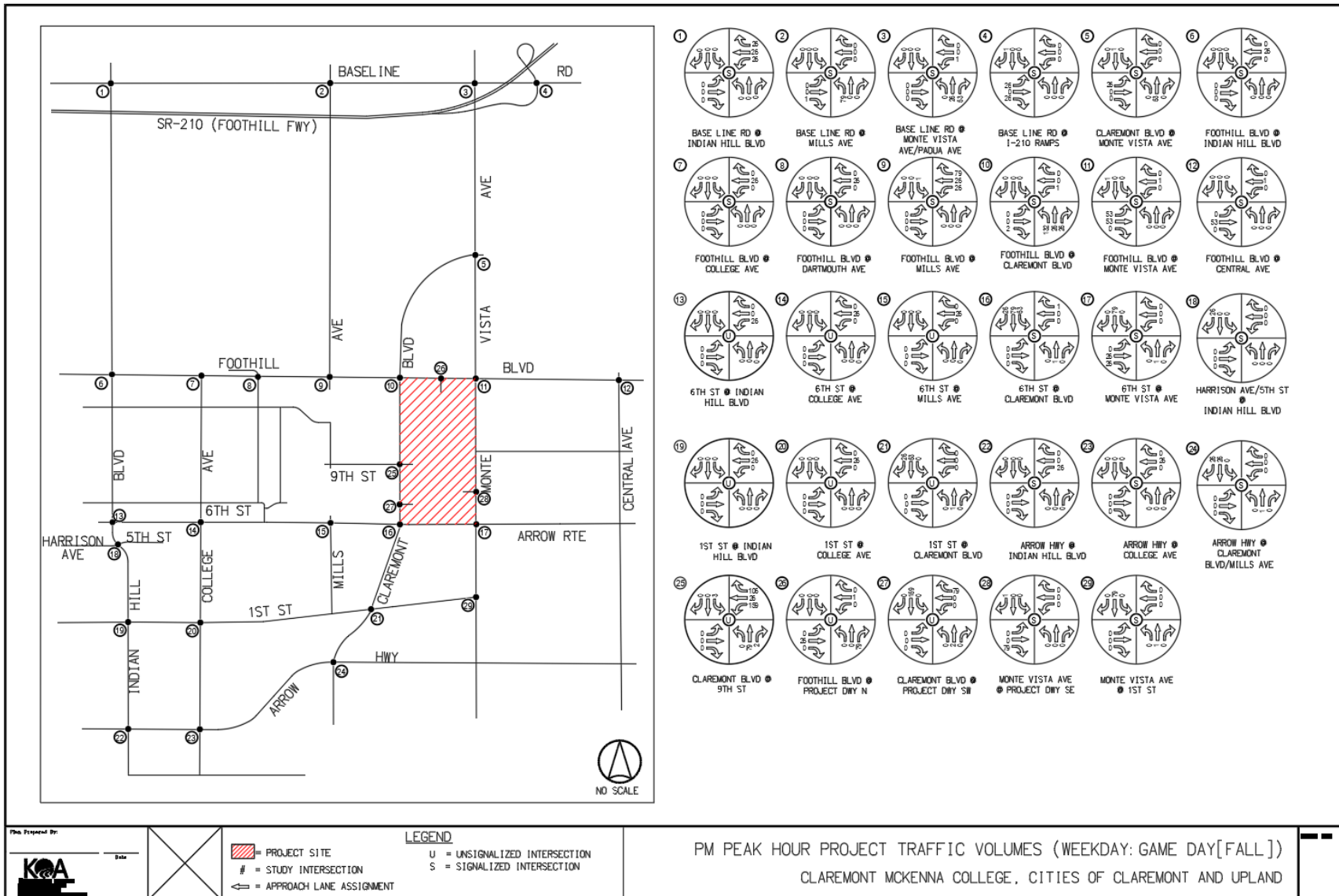


FIGURE 5.7 PROJECT TRIP ASSIGNMENT (WEEKDAY: GAME DAY [FALL]) – PM PEAK HOUR



PM PEAK HOUR PROJECT TRAFFIC VOLUMES (WEEKDAY: GAME DAY[FALL])
 CLAREMONT MCKENNA COLLEGE, CITIES OF CLAREMONT AND UPLAND

FIGURE 5.8 PROJECT TRIP ASSIGNMENT (WEEKDAY: GAME DAY [SPRING]) – AM PEAK HOUR

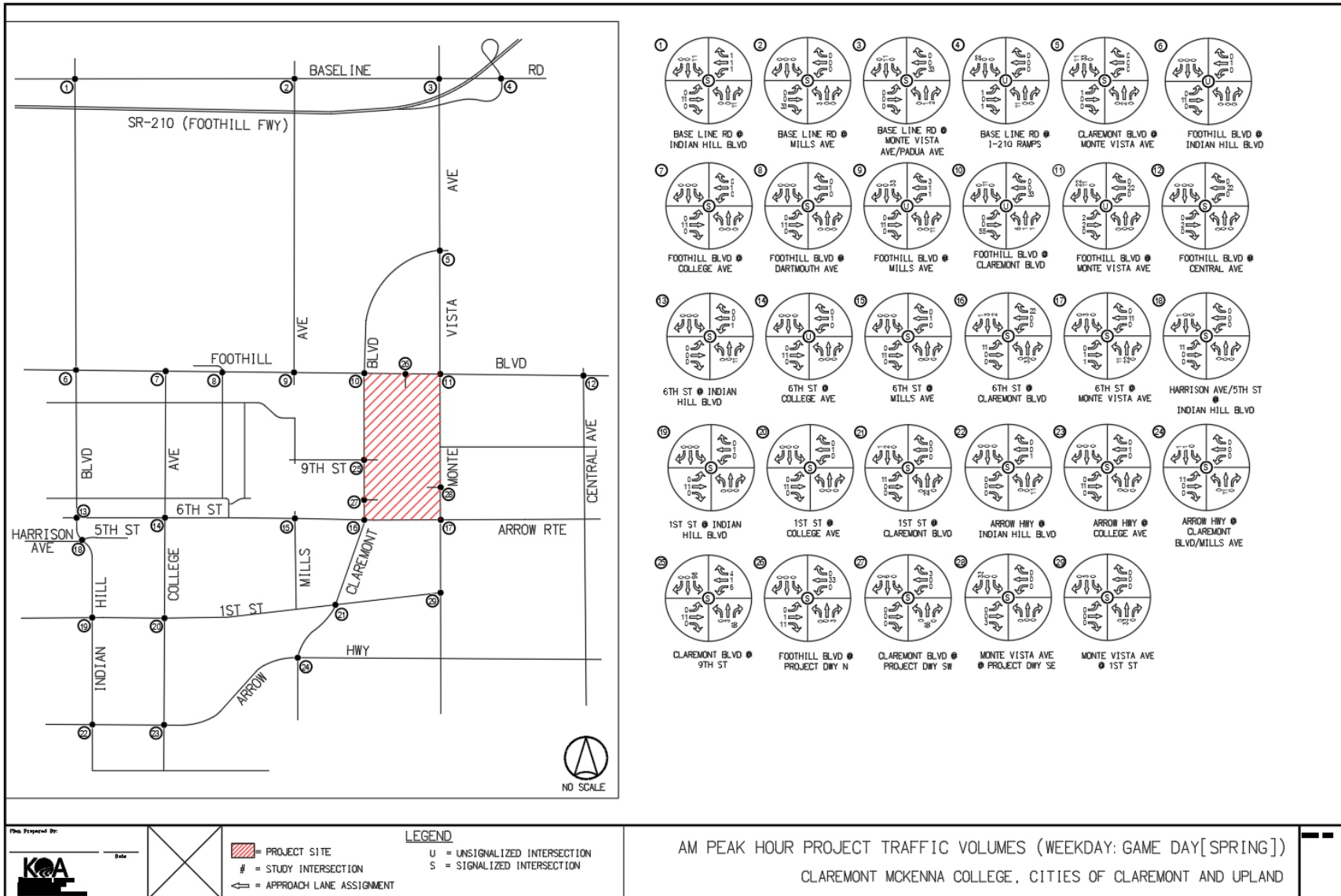
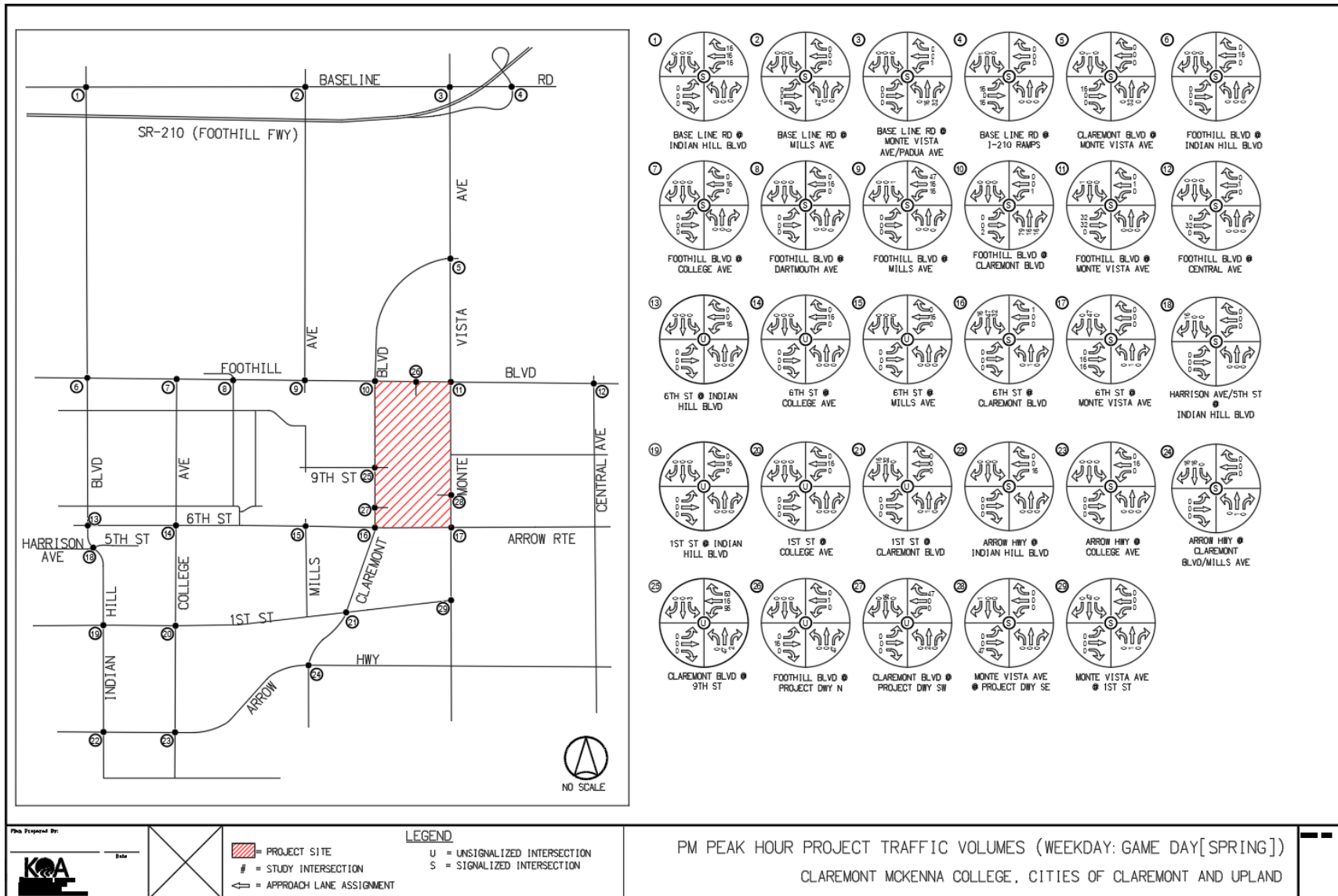


FIGURE 5.9 PROJECT TRIP ASSIGNMENT (WEEKDAY: GAME DAY [SPRING]) – PM PEAK HOUR



5.3 OPENING YEAR 2027

The potential impact of Project traffic on the surrounding street network during the AM and PM peak hours was first evaluated by analyzing the Opening Year 2027 operating conditions, both with and without the Project's trip generation. The previously discussed capacity analysis procedures were utilized to investigate the effect of the Project on pre-project delay and level of service conditions, at each study intersection, once ambient growth and cumulative developments have been factored into consideration. The Project's potential "Non-CEQA impacts" at each key intersection was then determined using City traffic impact criteria previously described in this report.

5.3.1 Opening Year 2027 Without Project Conditions

Opening Year (OY) 2027 without Project conditions includes background traffic growth, as well as project trips from those cumulative developments assumed to be completed and generating their own site traffic during the Project's OY-2027 time frame. From the list shown on Table 5.1, cumulative project numbers 1-4, 6, 7, 9, 11, 13-18, 20, 22, 24-27, and 29-33 were included in the OY-2027 Without Project scenario.

The OY-2027 Without Project weekday AM and PM peak hour traffic turn movement volumes are illustrated in **Figures 5.10** and **5.11**. These volumes represent the upward adjustment of the highest consecutive four 15-minute turning movement count volumes at each intersection, during the morning and afternoon/evening count periods, factoring in additional ambient annual traffic growth plus cumulative project traffic.

In addition, OY-2027 Without Project traffic volumes were developed for the weekend MD and PM peak-hours, for each study intersection. **Figures 5.12** and **5.13** present the mid-day and evening peak hour turning movement traffic volumes, respectively, representative of the peak arrival and departure hours for Saturday games. A comparison of these weekend peak hour traffic volumes to their weekday counterparts confirms that the weekend volumes are meaningfully to substantially less impactful on the surrounding street network due to the overall lower background traffic volume.

Figures 5.14 and **5.15** graphically illustrate the comparison between Weekday and Weekend intersection peak hour levels of service, during the analyzed AM, mid-day and PM peak hours.

FIGURE 5.10 OPENING YEAR 2027 WITHOUT PROJECT (WEEKDAY) TRAFFIC VOLUMES – AM PEAK HOUR

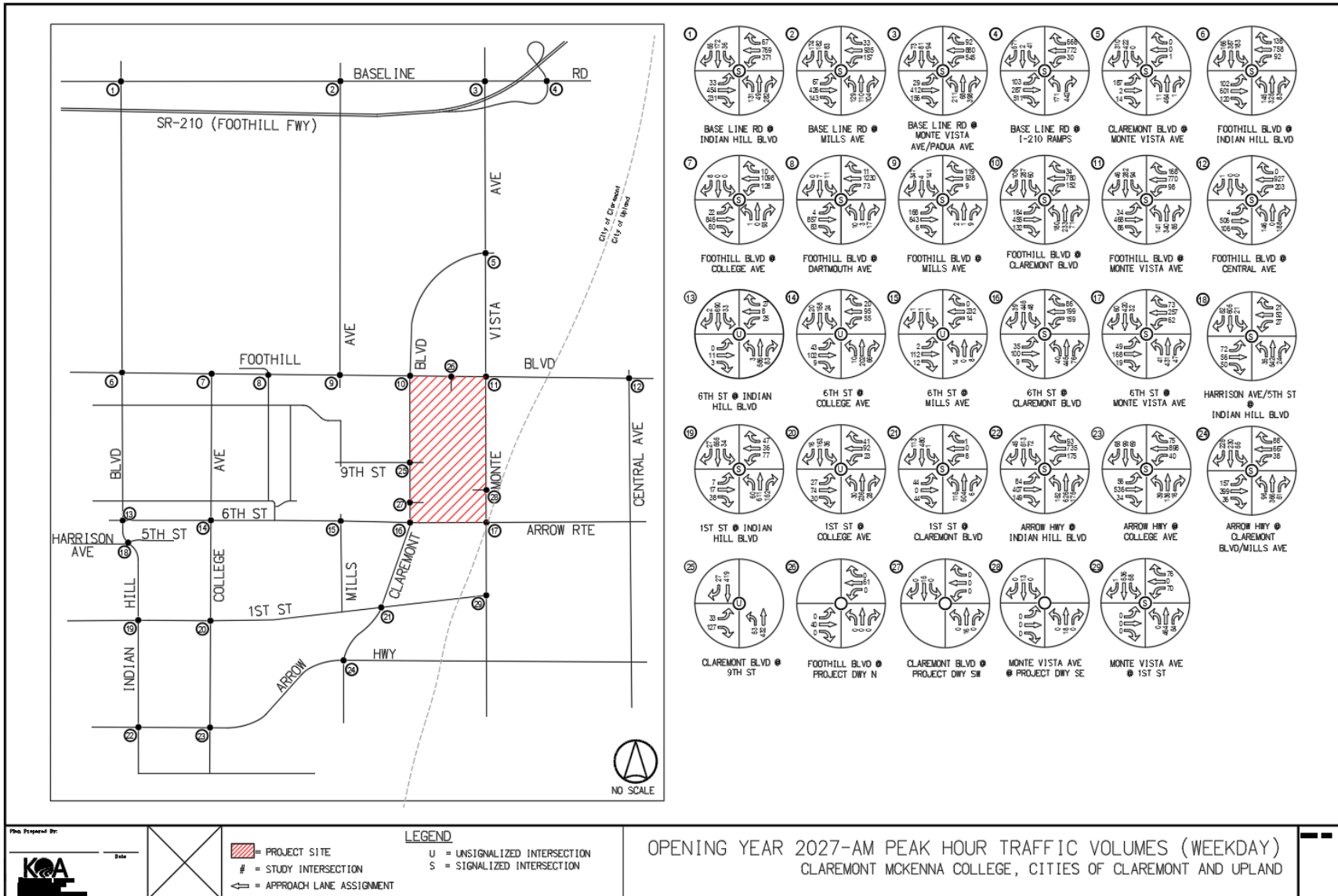


FIGURE 5.11 OPENING YEAR 2027 WITHOUT PROJECT (WEEKDAY) TRAFFIC VOLUMES – PM PEAK HOUR

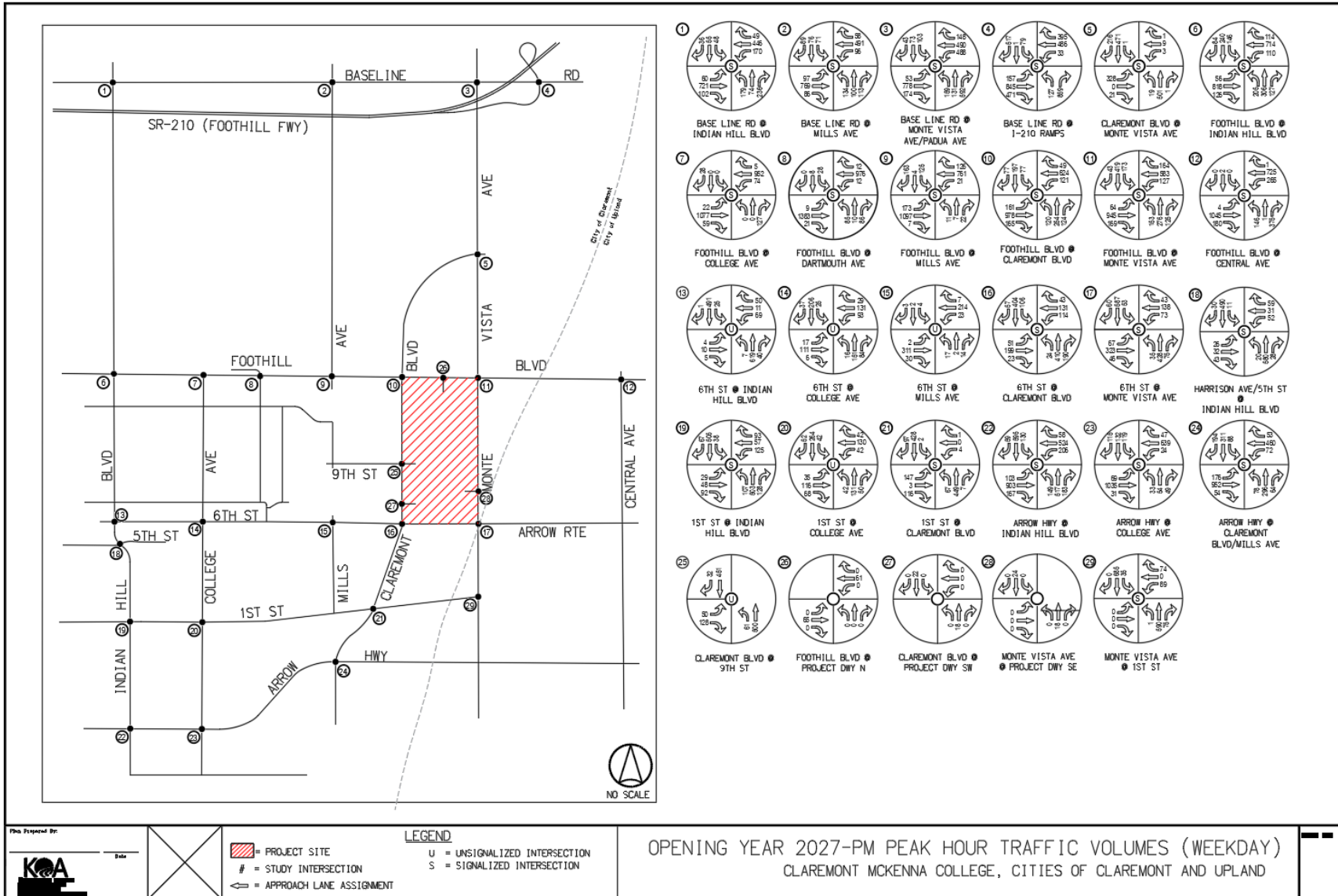


FIGURE 5.12 OPENING YEAR 2027 WITHOUT PROJECT (WEEKEND) TRAFFIC VOLUMES – MD PEAK HOUR

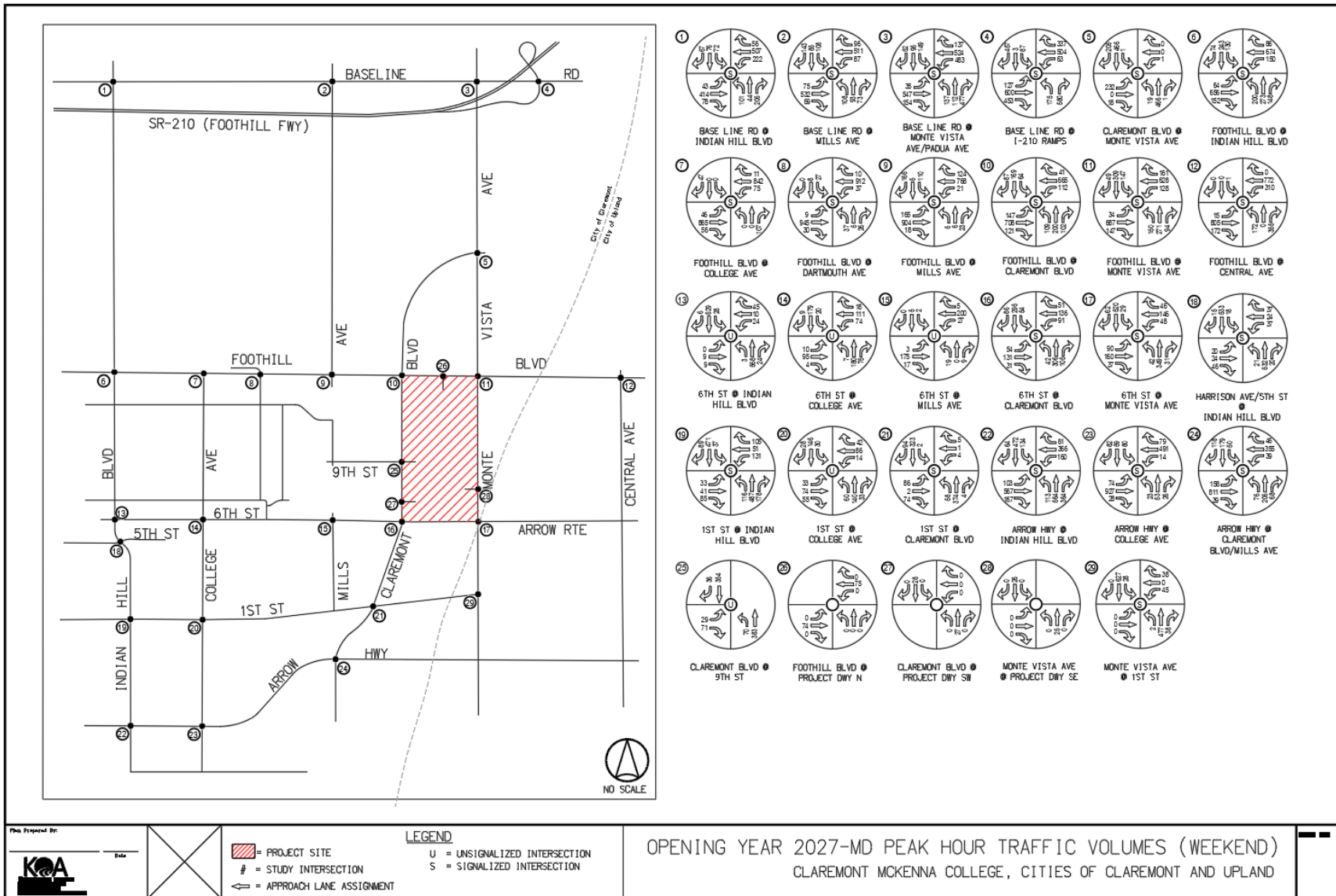


FIGURE 5.13 OPENING YEAR 2027 WITHOUT PROJECT (WEEKEND) TRAFFIC VOLUMES – PM PEAK HOUR

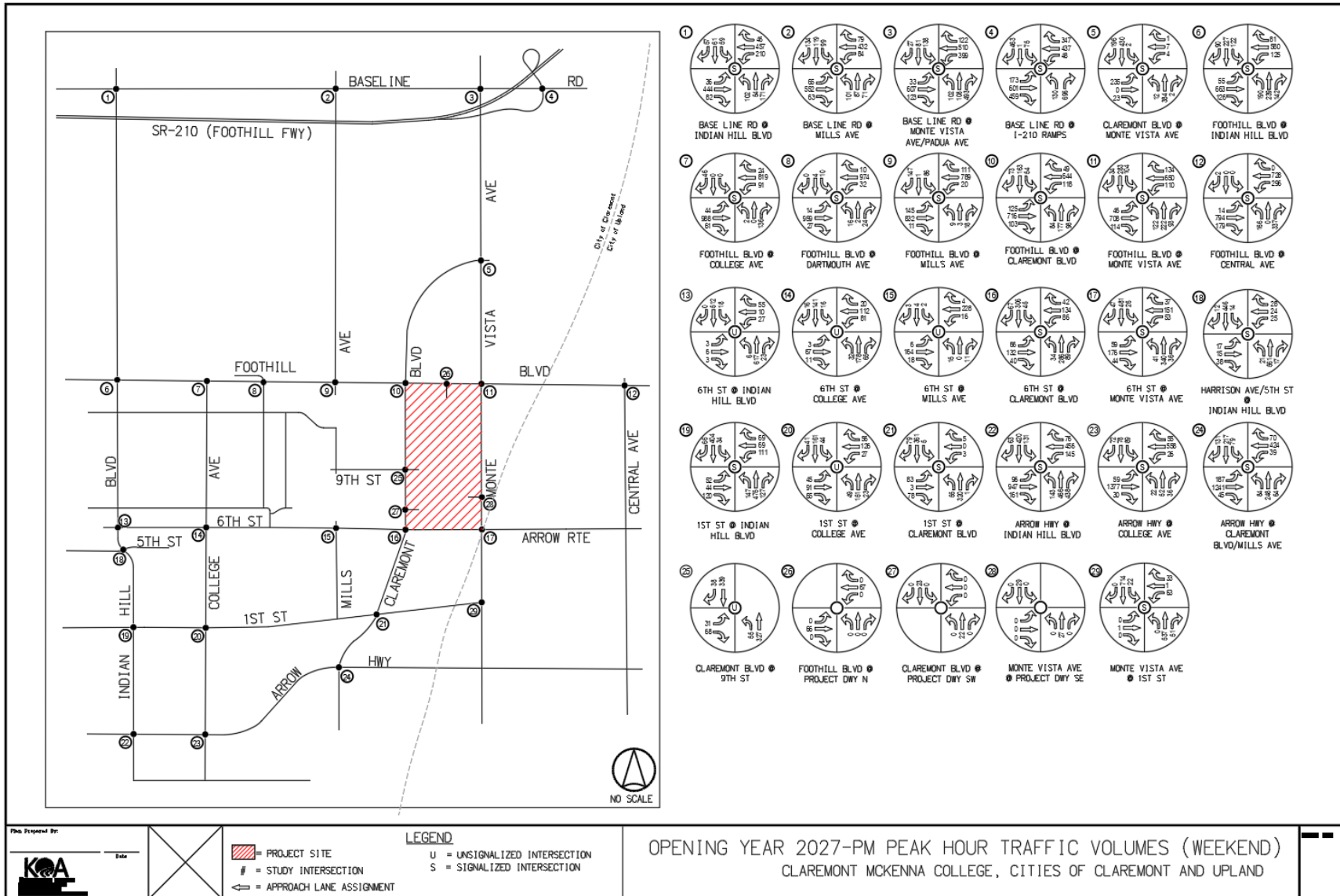


FIGURE 5.14 OPENING YEAR 2027 WITHOUT PROJECT (WEEKDAY) INTERSECTION LOS – AM & PM PEAK HOURS

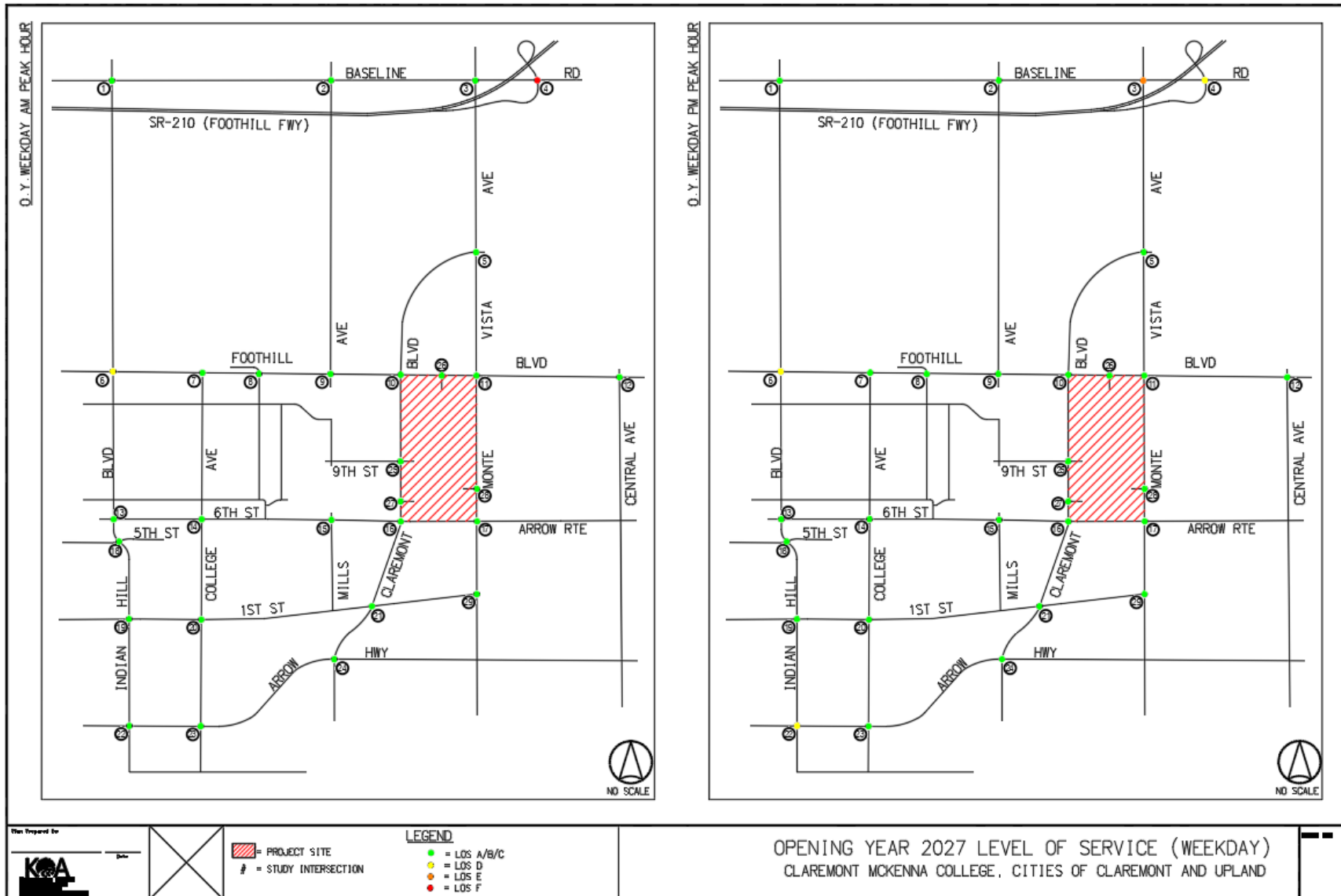


FIGURE 5.15 OPENING YEAR 2027 WITHOUT PROJECT (WEEKEND) INTERSECTION LOS – MD & PM PEAK HOURS

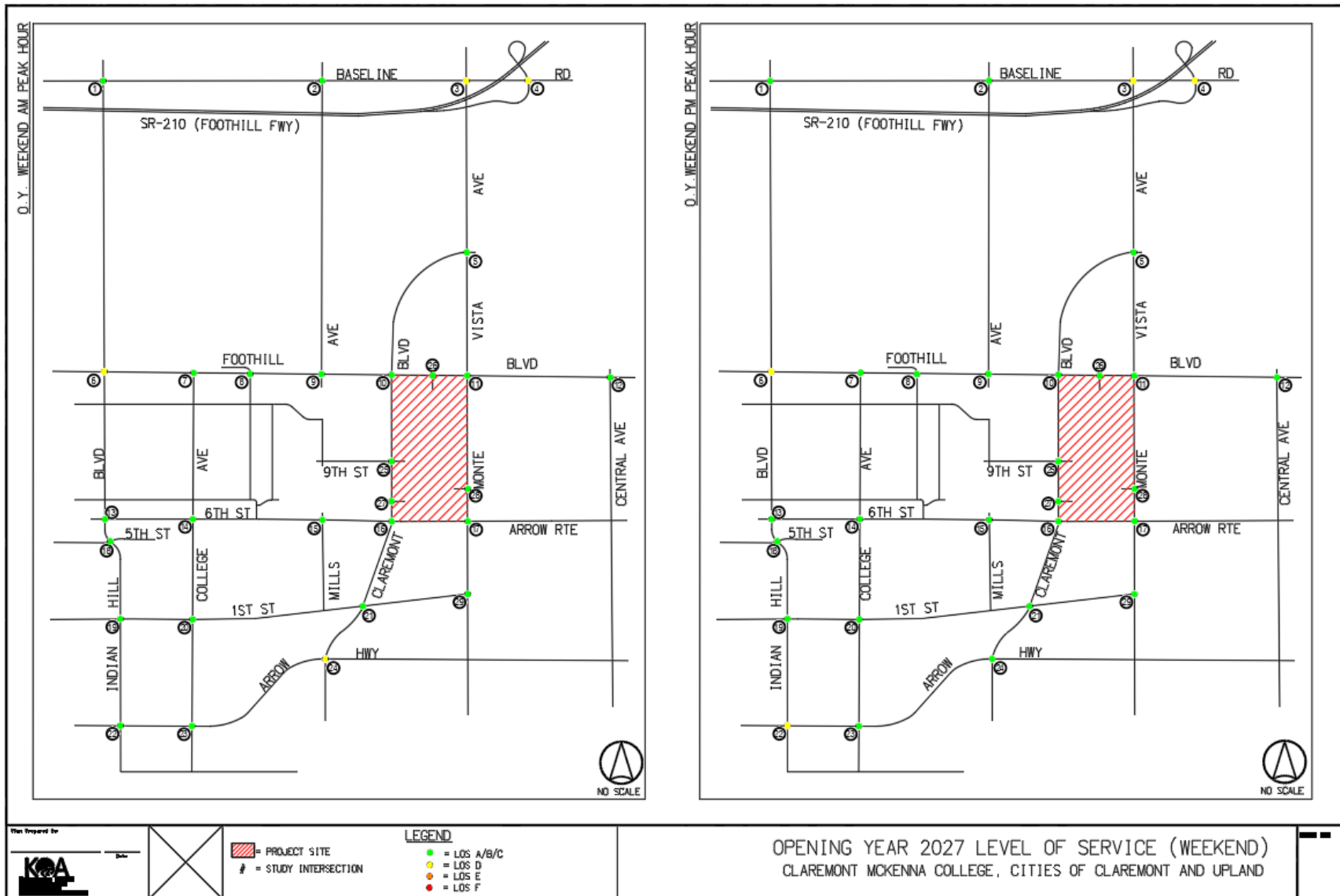


Table 5.4 summarizes the weekday and weekend intersection peak hour level of service conditions under Opening Year 2027, without the Project.

TABLE 5.4 OPENING YEAR 2027 WITHOUT PROJECT LOS SUMMARY

Study Intersection		Minimum Acceptable LOS	Peak Hour	Weekday		Weekend	
No.	Intersection			LOS	Delay	LOS	Delay
1	Base Line Rd & Indian Hill Blvd	E	AM	C	23.5	C	20.5
			PM	C	20.8	C	20.2
2	Base Line Rd & Mills Ave	E	AM	B	18.9	B	17.8
			PM	B	18.4	B	17.2
3	Base Line Rd & Monte Vista/Padua Ave	E	AM	C	29.7	D	39.9
			PM	E	67.8	D	40.2
4	Base Line Rd & I-210 Ramps	E	AM	F	151.2	D	38.6
			PM	D	47.9	D	39.3
5	Claremont Blvd & Monte Vista Ave	E	AM	B	10.5	B	11.9
			PM	B	10.9	B	12.4
6	Foothill Blvd & Indian Hill Blvd	E	AM	D	36.3	D	40.2
			PM	D	36.2	D	37.2
7	Foothill Blvd & College Ave	E	AM	A	1.4	A	1.6
			PM	A	1.5	A	1.7
8	Foothill Blvd & Dartmouth Ave	E	AM	B	13.5	B	13.5
			PM	B	14.1	B	14.3
9	Foothill Blvd & Mills Ave	E	AM	C	32.0	C	30.0
			PM	C	33.0	C	27.7
10	Foothill Blvd & Claremont Blvd	E	AM	C	21.6	C	20.8
			PM	C	21.3	C	20.8
11	Foothill Blvd & Monte Vista Ave	D	AM	C	21.7	C	21.8
			PM	C	29.8	C	21.8
12	Foothill Blvd & Central Ave	D	AM	B	20.0	C	34.5
			PM	C	27.9	C	31.8
13	6th St & Indian Hill Blvd	D	AM	A	2.6	A	2.3
			PM	A	8.2	A	2.7
14	6th St & College Ave	D	AM	B	11.3	B	11.1
			PM	B	12.8	B	10.9
15	6th St & Mills Ave	D	AM	A	8.5	A	8.8
			PM	B	10.1	A	8.8
16	6th St/Arrow Rte & Claremont Blvd	D	AM	B	17.7	B	17.4
			PM	B	19.9	B	17.4
17	Arrow Rte & Monte Vista Ave	D	AM	B	16.5	B	15.6
			PM	B	16.9	B	15.2
18	Harrison Ave/5th St & Indian Hill Blvd	D	AM	C	26.9	B	18.3
			PM	B	19.6	A	10.0
19	1st St & Indian Hill Blvd	D	AM	B	10.3	B	13.9
			PM	B	14.0	B	13.4
20	1st St & College Ave	D	AM	B	12.3	B	11.1
			PM	C	16.2	B	12.3
21	1st St & Claremont Blvd	D	AM	A	5.7	A	8.8
			PM	B	10.5	A	9.0
22	Arrow Hwy & Indian Hill Blvd	E	AM	C	28.6	C	30.4
			PM	D	38.8	D	41.8
23	Arrow Hwy & College Ave	E	AM	B	12.3	B	13.6
			PM	B	13.0	B	14.1
24	Arrow Hwy & Claremont Blvd/Mills Ave	E	AM	C	32.1	D	35.9
			PM	C	32.6	C	33.7

25	Claremont Blvd & 9th St	D	AM	A	2.5	A	2.0
			PM	A	2.9	A	2.0
26	Foothill Blvd & Project Dwy N	E	AM	A	0.0	A	0.0
			PM	A	0.0	A	0.0
27	Claremont Blvd & Project Dwy SW	D	AM	A	0.0	A	0.0
			PM	A	0.0	A	0.0
28	Monte Vista Ave & Project Dwy SE	D	AM	A	0.0	A	0.0
			PM	A	0.0	A	0.0
29	Monte Vista Ave & 1st St/Richton St	D	AM	A	7.2	A	6.5
			PM	A	8.0	A	8.2

Delay/LOS values indicate unacceptable service levels based on LOS Criteria identified in this report.

A review of Table 5.4 indicates that Study Intersection #4: Base Line Road at the I-210 On/Off-Ramps is forecast to operate at unacceptable level of service during AM peak hour.

Appendix C contains the Opening Year Without Project Traffic Conditions delay and LOS calculation worksheets for each study intersection.

5.3.2 Opening Year 2027 With Project Conditions

Table 5.5 summarizes the intersection levels of service with the addition of the Project. Review of Table 5.5 indicates that the intersection of Base Line Road at the I-210 On/Off-Ramps is forecast to continue operating at an unacceptable level of service with the addition of Project traffic, for each of the sub-analysis scenarios, i.e., Weekday: Practice Day; Weekday: Game Day; Weekend: Game Day – Fall; and Weekend: Game day – Spring. The remaining key study intersections are forecast to operate at an acceptable level of service during Practice and Game Days during the AM and PM peak hours with the addition of Project traffic.

TABLE 5.5 OPENING YEAR 2027 WITH PROJECT LOS SUMMARY

No.	Intersection	Minimum Acceptable LOS	Peak Hour	Practice Day		Game Day		Game Day (Fall)		Game Day (Spring)	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Base Line Rd & Indian Hill Blvd	E	AM	C	24.1	C	23.5	C	20.4	C	20.4
			PM	C	20.9	C	20.9	C	20.7	B	11.8
2	Base Line Rd & Mills Ave	E	AM	B	19.8	B	18.9	B	17.7	B	17.7
			PM	B	18.4	B	18.4	B	17.1	B	17.2
3	Base Line Rd & Monte Vista/Padua Ave	E	AM	C	29.7	C	29.7	D	40.1	D	44.4
			PM	E	63.9	E	66.0	D	45.1	D	46.0
4	Base Line Rd & I-210 Ramps	E	AM	F	151.2	F	151.2	D	44.7	D	44.8
			PM	E	57.6	D	47.8	D	39.4	D	39.2
5	Claremont Blvd & Monte Vista Ave	E	AM	B	10.5	B	10.5	B	11.8	B	11.9
			PM	B	14.2	B	14.3	B	12.8	B	12.7
6	Foothill Blvd & Indian Hill Blvd	E	AM	D	36.3	D	36.3	D	40.2	D	39.6
			PM	D	36.2	D	36.2	D	37.1	D	37.2
7	Foothill Blvd & College Ave	E	AM	A	1.4	A	1.4	A	1.6	A	1.6
			PM	A	1.5	A	1.5	A	1.9	A	1.9
8	Foothill Blvd & Dartmouth Ave	E	AM	B	13.5	B	13.7	B	13.4	B	13.4
			PM	B	14.1	B	14.1	B	14.5	B	14.4
9	Foothill Blvd & Mills Ave	E	AM	C	32.0	C	32.0	C	32.8	C	31.8
			PM	C	33.5	C	33.8	c	29.3	C	28.9
10	Foothill Blvd & Claremont Blvd	E	AM	C	21.6	C	21.6	C	21.1	C	21.0
			PM	C	21.3	C	21.0	C	20.3	C	20.4
11	Foothill Blvd & Monte Vista Ave	D	AM	C	21.3	C	21.3	C	22.0	C	21.9
			PM	C	31.4	C	32.5	C	23.8	C	22.8
12	Foothill Blvd & Central Ave	D	AM	B	20.0	B	20.0	C	34.3	C	34.4
			PM	C	29.8	C	30.1	C	31.9	C	31.8
13	6th St & Indian Hill Blvd	D	AM	A	2.6	A	2.6	A	2.4	A	2.4
			PM	B	10.1	B	11.4	A	5.0	A	4.0
14	6th St & College Ave	D	AM	B	11.3	B	11.3	B	11.3	B	11.2
			PM	B	12.9	B	13.0	B	11.2	B	11.1
15	6th St & Mills Ave	D	AM	A	8.5	A	8.5	A	8.9	A	8.8
			PM	B	10.2	B	10.2	A	9.1	A	8.9
16	6th St/Arrow Rte & Claremont Blvd	D	AM	B	17.7	B	17.7	B	17.8	B	17.6
			PM	C	20.0	C	20.0	B	17.7	B	17.6
17	Arrow Rte & Monte Vista Ave	D	AM	B	16.5	B	16.5	B	16.2	B	16.0
			PM	B	17.0	B	17.2	B	15.4	B	15.3
18	Harrison Ave/5th St & Indian Hill Blvd	D	AM	C	26.9	C	26.9	B	18.8	B	18.7
			PM	B	19.5	B	19.5	A	9.9	A	9.9
19	1st St & Indian Hill Blvd	D	AM	B	10.3	B	13.8	B	14.2	B	13.9

			PM	B	14.1	B	14.2	B	13.8	B	13.6
20	1st St & College Ave	D	AM	B	12.3	B	12.3	B	11.2	B	11.2
			PM	C	16.4	D	25.2	B	12.6	B	12.5
21	1st St & Claremont Blvd	D	AM	A	5.7	A	5.7	A	9.2	A	9.0
			PM	B	10.4	B	10.4	A	8.6	A	8.7
22	Arrow Hwy & Indian Hill Blvd	E	AM	C	28.6	C	28.5	C	30.9	C	30.7
			PM	D	39.4	D	39.8	D	44.6	D	43.3
23	Arrow Hwy & College Ave	E	AM	B	12.3	B	12.3	B	13.7	B	13.7
			PM	B	13.0	B	12.9	B	14.0	B	14.0
24	Arrow Hwy & Claremont Blvd/Mills Ave	E	AM	C	32.1	C	32.1	C	28.7	C	28.6
			PM	C	32.7	C	32.7	C	33.7	C	33.7
25	Claremont Blvd & 9th St	D	AM	B	11.3	B	11.3	C	27.7	B	17.5
			PM	B	16.6	B	18.1	C	20.7	B	18.3
26	Foothill Blvd & Project Dwy N	E	AM	A	0.0	A	0.0	A	0.1	A	0.1
			PM	A	1.3	A	1.9	A	2.9	A	2.1
27	Claremont Blvd & Project Dwy SW	D	AM	A	0.0	A	0.0	A	0.2	A	0.2
			PM	A	1.7	A	2.0	A	2.4	A	2.1
28	Monte Vista Ave & Project Dwy SE	D	AM	A	0.0	A	0.0	A	0.3	A	0.3
			PM	A	3.1	A	4.3	A	5.5	A	4.2
29	Monte Vista Ave & 1st St/Richton St	D	AM	A	7.2	A	7.2	A	6.5	A	6.5
			PM	A	8.0	A	8.0	A	7.9	A	8.0

Delay/LOS values indicate unacceptable service levels based on LOS Criteria identified in this report.

5.3.2a Opening Year 2027 Cumulative Plus Project (Weekday: Practice Day) Traffic

Project trip estimates for the Weekday: Practice Day scenario, as shown on Table 5.3, were added to the Opening Year 2027 Cumulative Without Project conditions to develop traffic projections for the Year 2027 Cumulative Plus Project (Weekday: Practice Day) traffic conditions. The resulting traffic volumes during the AM and PM peak hours at the key study intersections are illustrated in **Figures 5.16** and **5.17**, respectively. **Figure 5.18** graphically illustrates the comparison between Weekday and Weekend level of service results for the AM and PM peak hours.

5.3.2b Opening Year 2027 Cumulative Plus Project (Weekday: Game Day) Traffic

Project trip estimates for the Weekday: Game Day scenario, as shown on Table 5.3, were added to the Opening Year 2027 Cumulative Without Project conditions to develop traffic projections for the Year 2027 Cumulative Plus Project (Weekday: Game Day) traffic conditions. The resulting traffic volumes during the AM and PM peak hours at the key study intersections are illustrated in **Figures 5.19** and **5.20**, respectively. **Figure 5.21** graphically illustrates the comparison between Weekday and Weekend level of service results for the AM and PM peak hours.

5.3.2c Opening Year 2027 Cumulative Plus Project (Weekend: Game Day – Fall) Traffic

Project trip estimates for the Weekend: Game Day (Fall) scenario, as shown on Table 5.3, were added to the Opening Year 2027 Cumulative Without Project conditions to develop traffic projections for the Year 2027 Cumulative Plus Project (Weekend: Game Day – Fall) traffic conditions. The resulting traffic volumes during the AM and PM peak hours at the key study intersections are illustrated in **Figures 5.22** and **5.23**, respectively. **Figure 5.24** graphically illustrates the comparison between Weekday and Weekend level of service results for the AM and PM peak hours.

5.3.2d Opening Year 2027 Cumulative Plus Project (Weekend: Game Day – Spring) Traffic

Project trip estimates for the Weekend: Game Day (Spring) scenario, as shown on Table 5.3, were added to the Opening Year 2027 Cumulative Without Project conditions to develop traffic projections for the Year 2027 Cumulative Plus Project (Weekend: Game Day – Spring) traffic conditions. The resulting traffic volumes during the AM and PM peak hours at the key study intersections are illustrated in **Figures 5.25** and **5.26**, respectively. **Figure 5.27** graphically illustrates the comparison between Weekday and Weekend level of service results for the AM and PM peak hours.

Appendix D contains the Opening Year with Project Traffic Conditions Delay/LOS calculation worksheets for the key study intersections.

FIGURE 5.16 OPENING YEAR 2027 WITH PROJECT (WEEKDAY PRACTICE DAY) TRAFFIC VOLUMES – AM PEAK HOUR

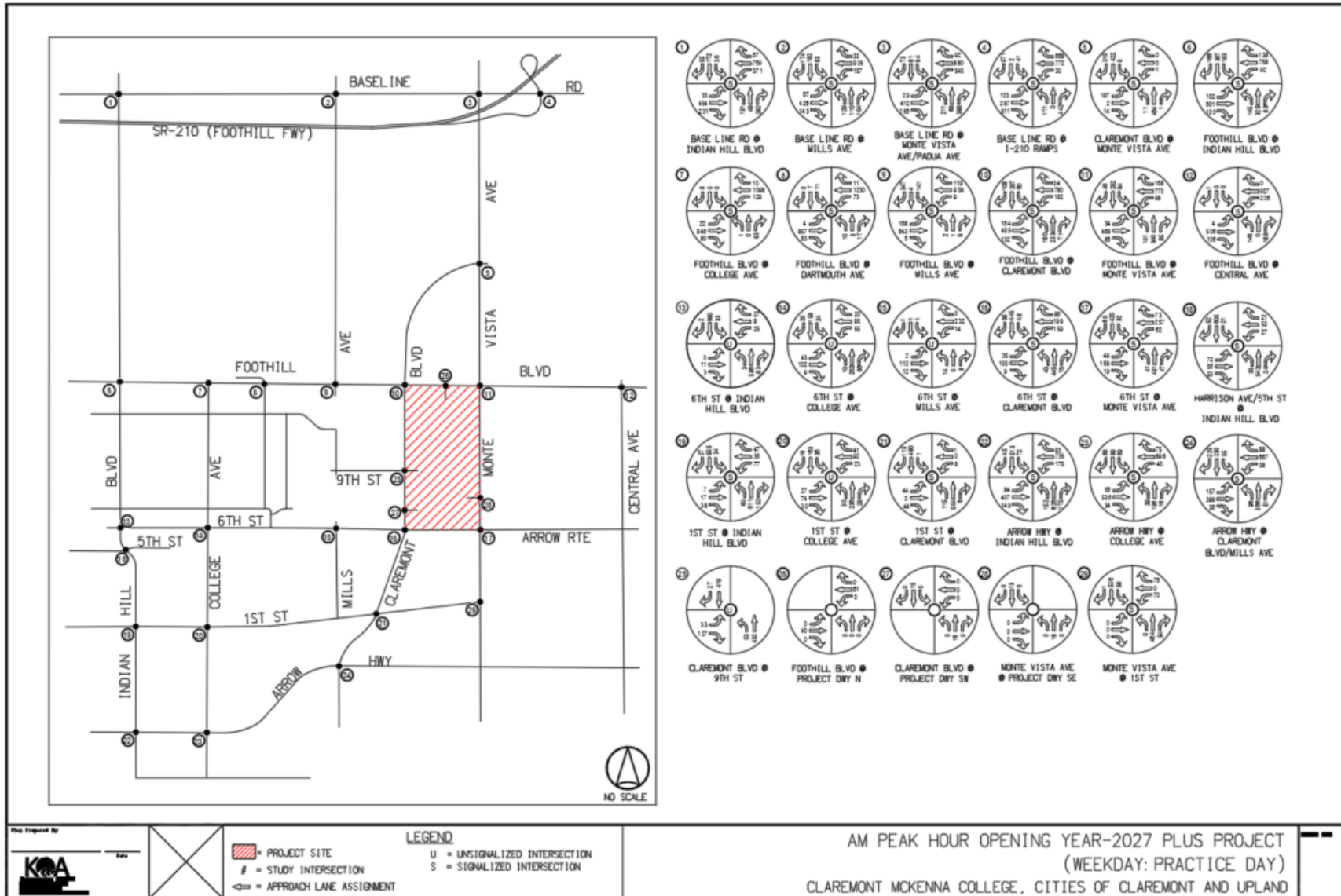


FIGURE 5.17 OPENING YEAR 2027 WITH PROJECT (WEEKDAY PRACTICE DAY) TRAFFIC VOLUMES – PM PEAK HOUR

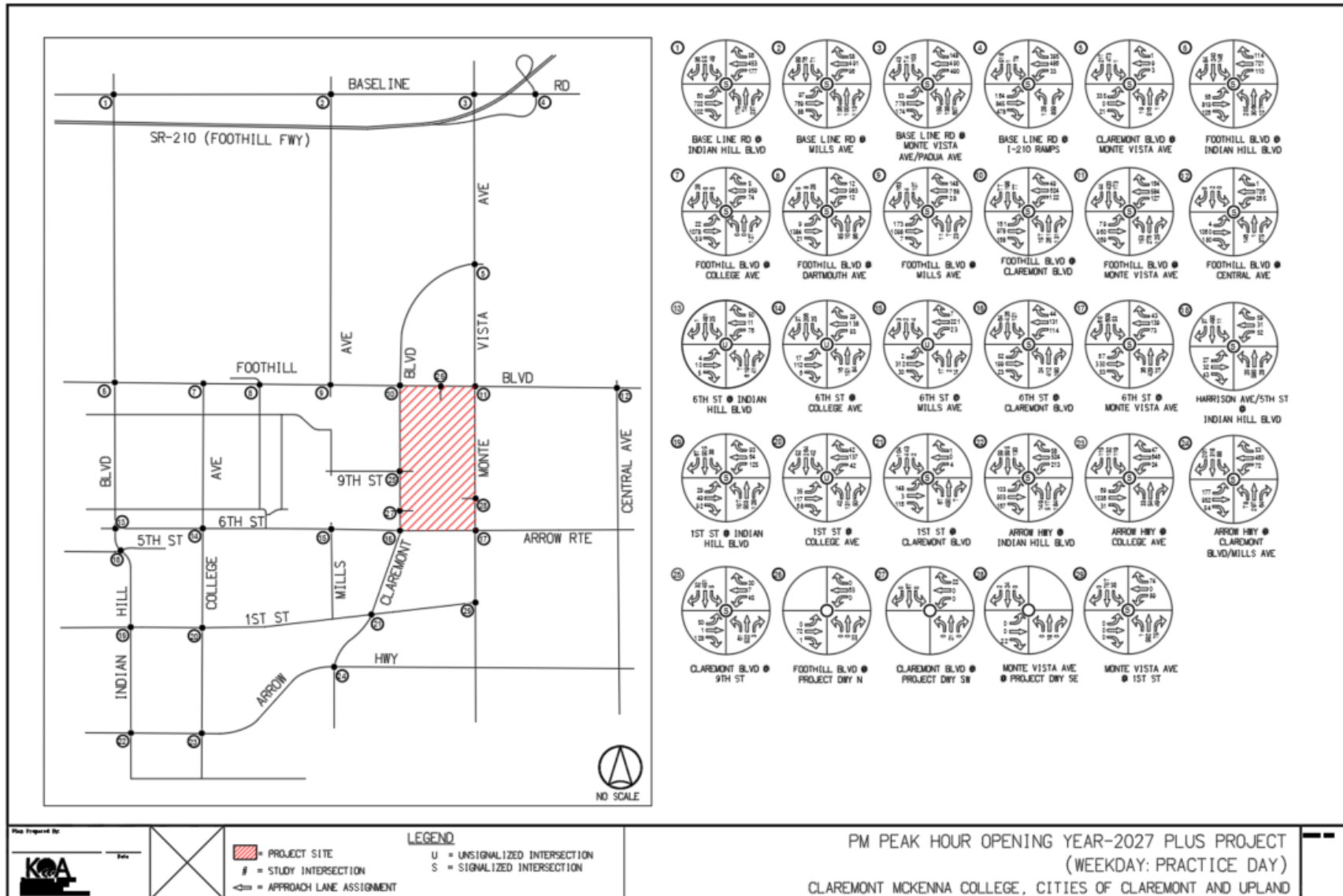


FIGURE 5.18 OPENING YEAR 2027 WITH PROJECT (WEEKDAY PRACTICE DAY) INTERSECTION LOS – AM & PM PEAK HOURS

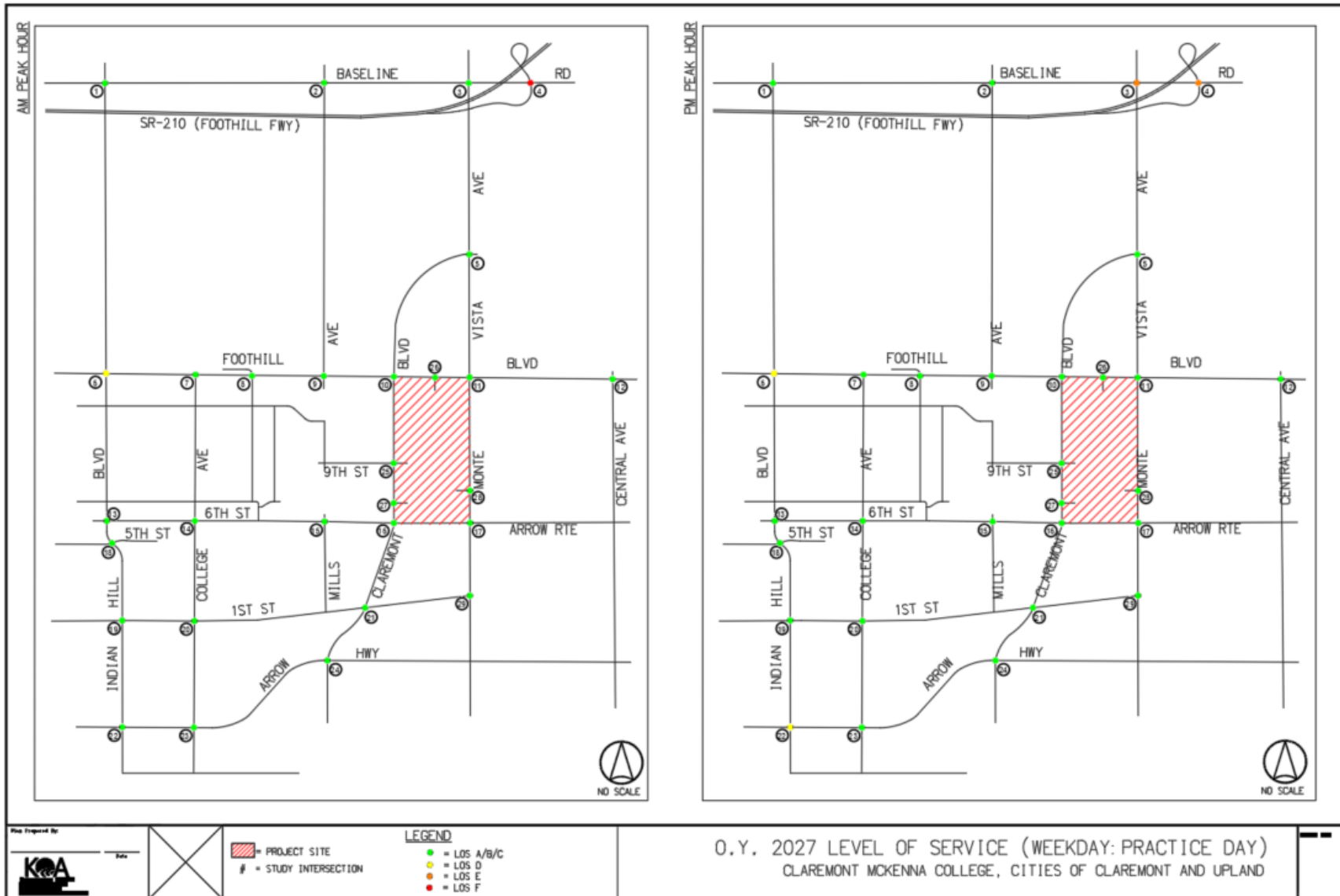


FIGURE 5.19 OPENING YEAR 2027 WITH PROJECT (WEEKDAY GAME DAY) TRAFFIC VOLUMES – AM PEAK HOUR

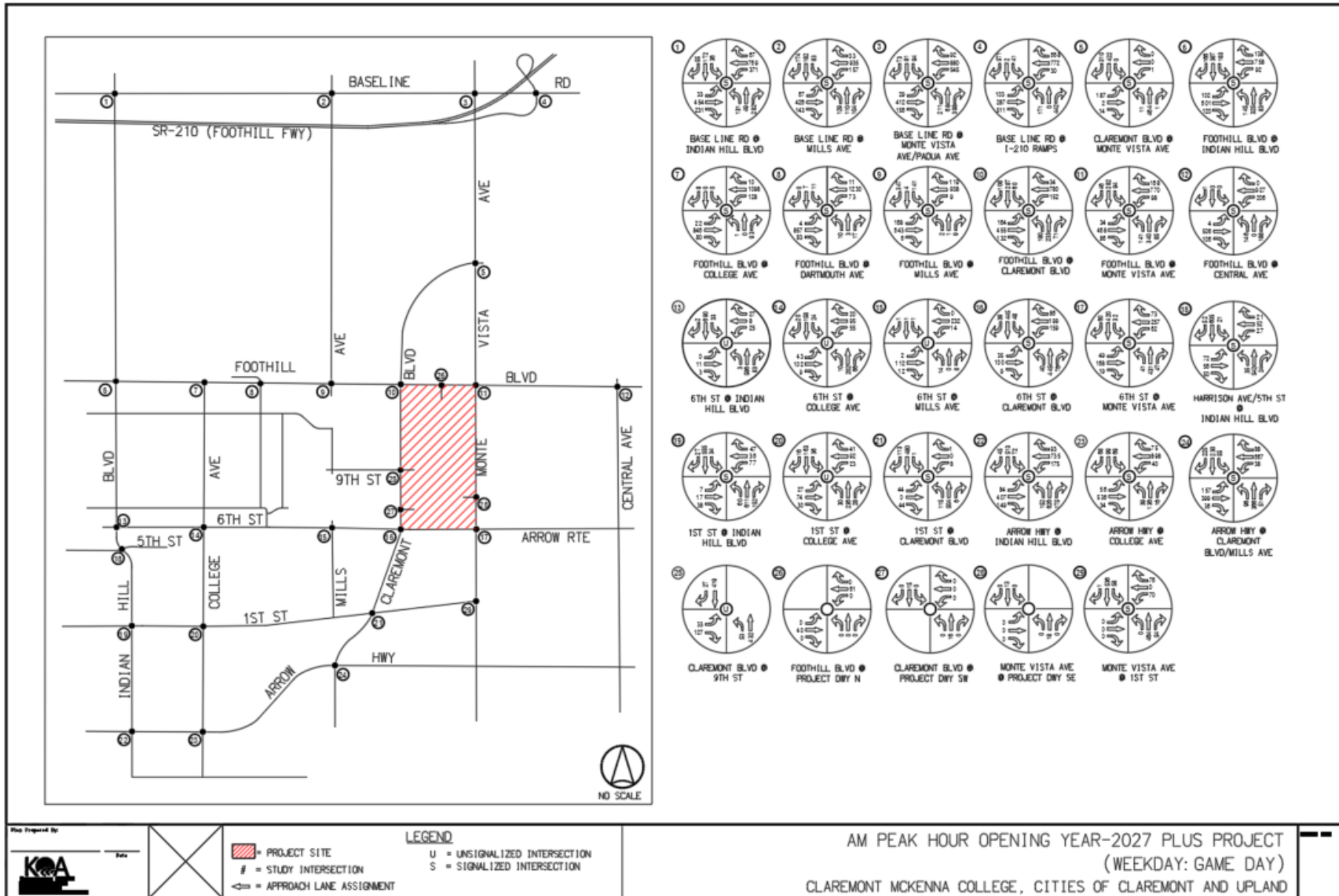


FIGURE 5.20 OPENING YEAR 2027 WITH PROJECT (WEEKDAY GAME DAY) TRAFFIC VOLUMES – PM PEAK HOUR

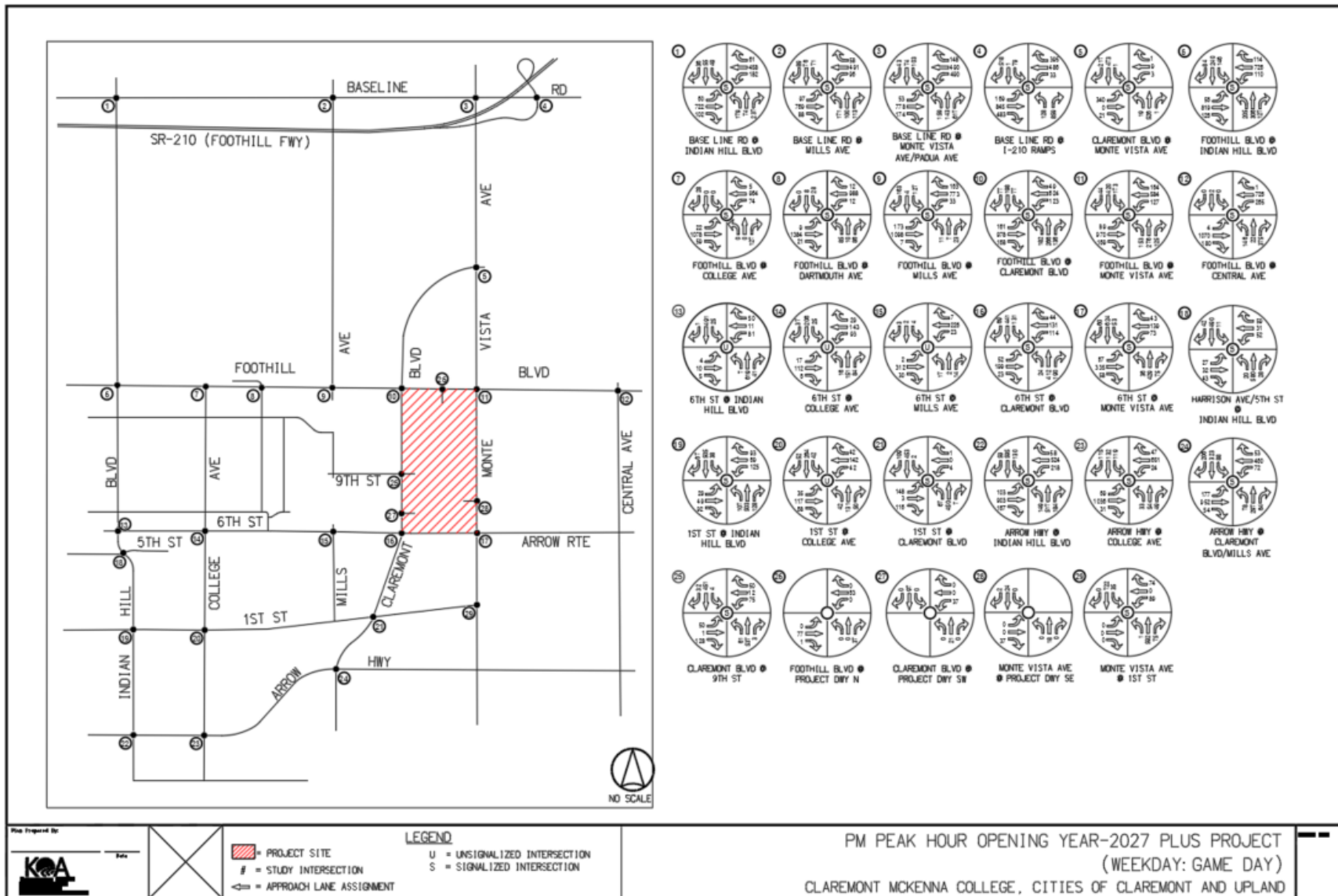


FIGURE 5.21 OPENING YEAR 2027 WITH PROJECT (WEEKDAY GAME DAY) INTERSECTION LOS – AM & PM PEAK HOUR S

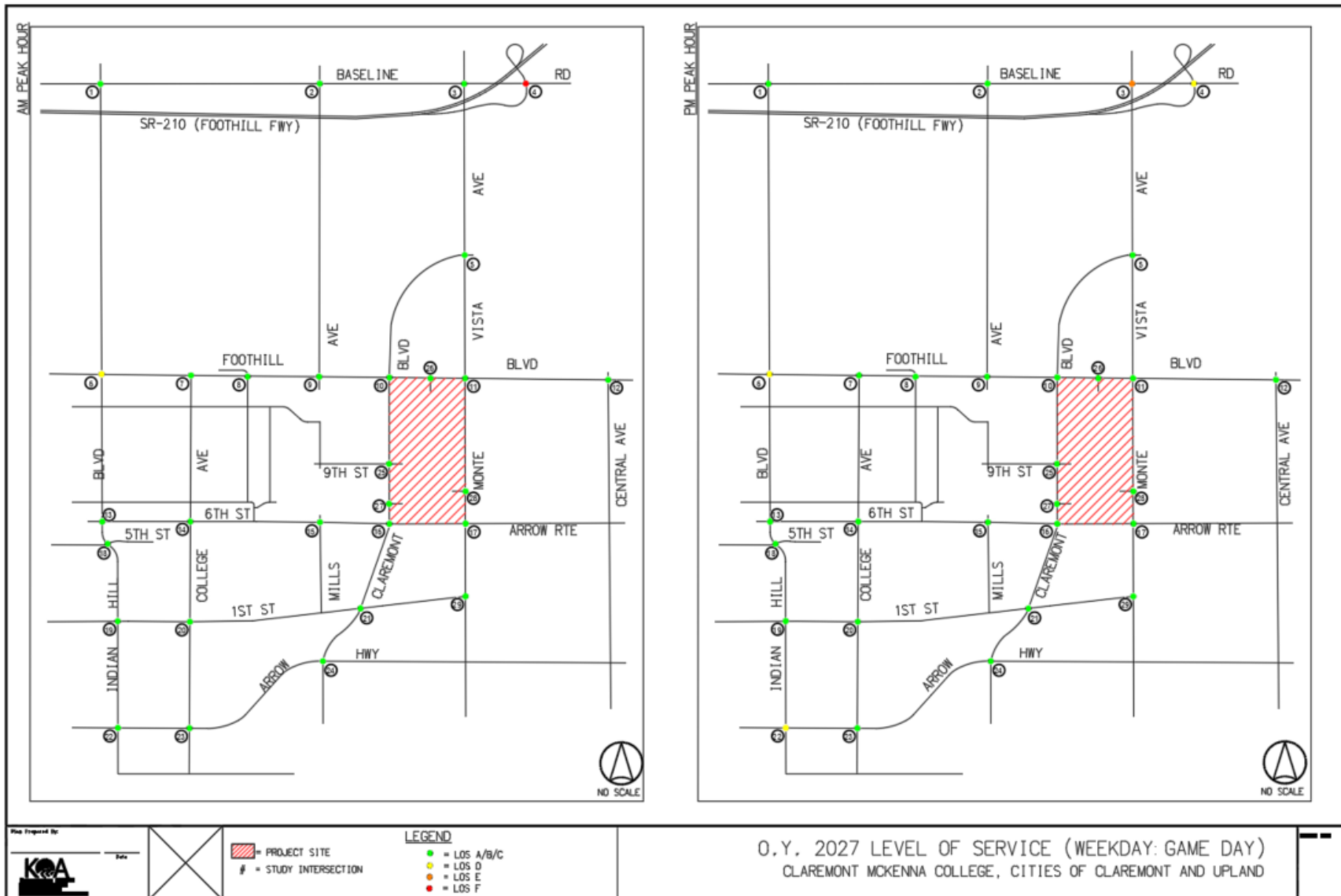


FIGURE 5.22 OPENING YEAR 2027 WITH PROJECT (WEEKEND GAME DAY [FALL]) TRAFFIC VOLUMES – AM PEAK HOUR

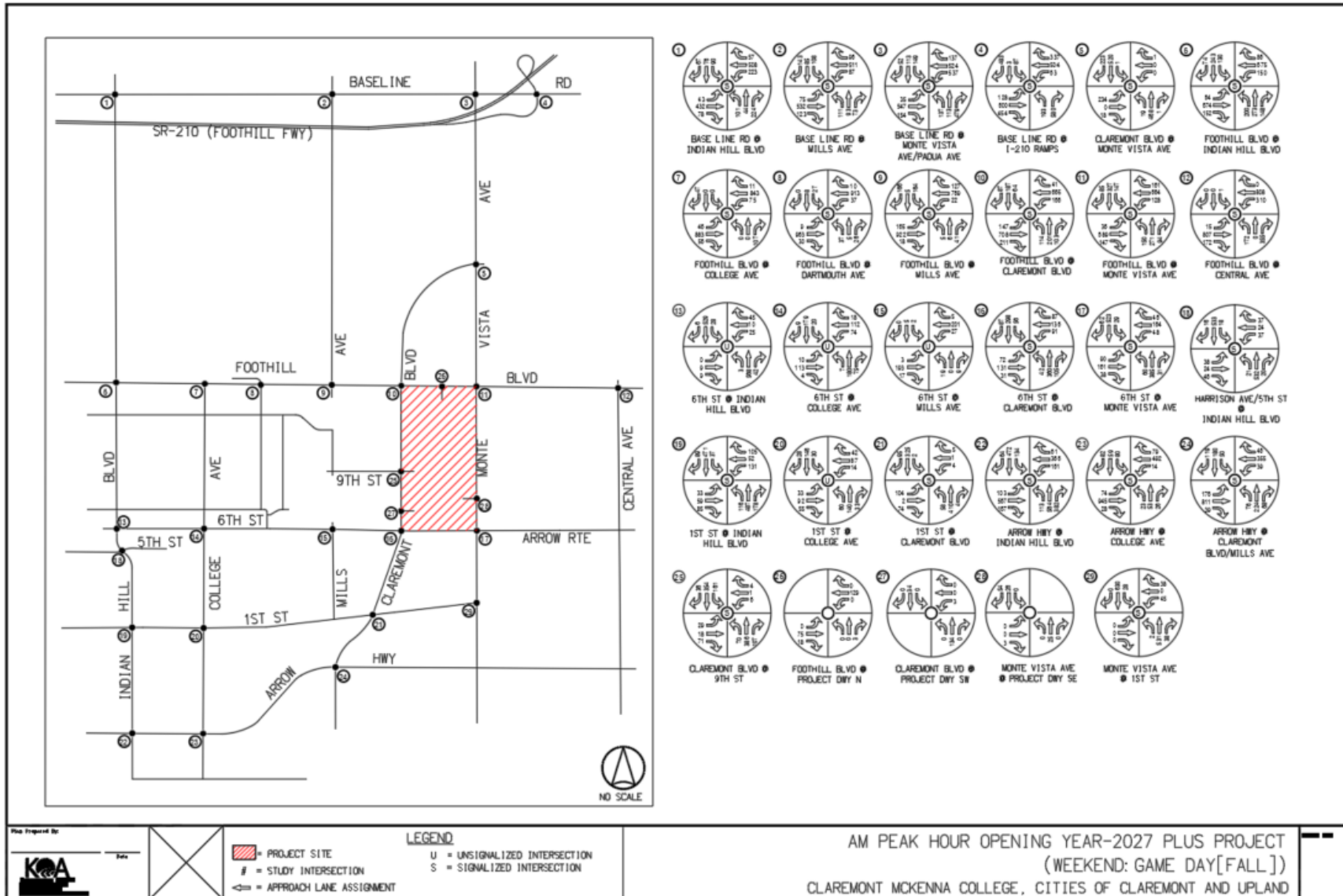


FIGURE 5.23 OPENING YEAR 2027 WITH PROJECT (WEEKEND GAME DAY [FALL]) TRAFFIC VOLUMES – PM PEAK HOUR

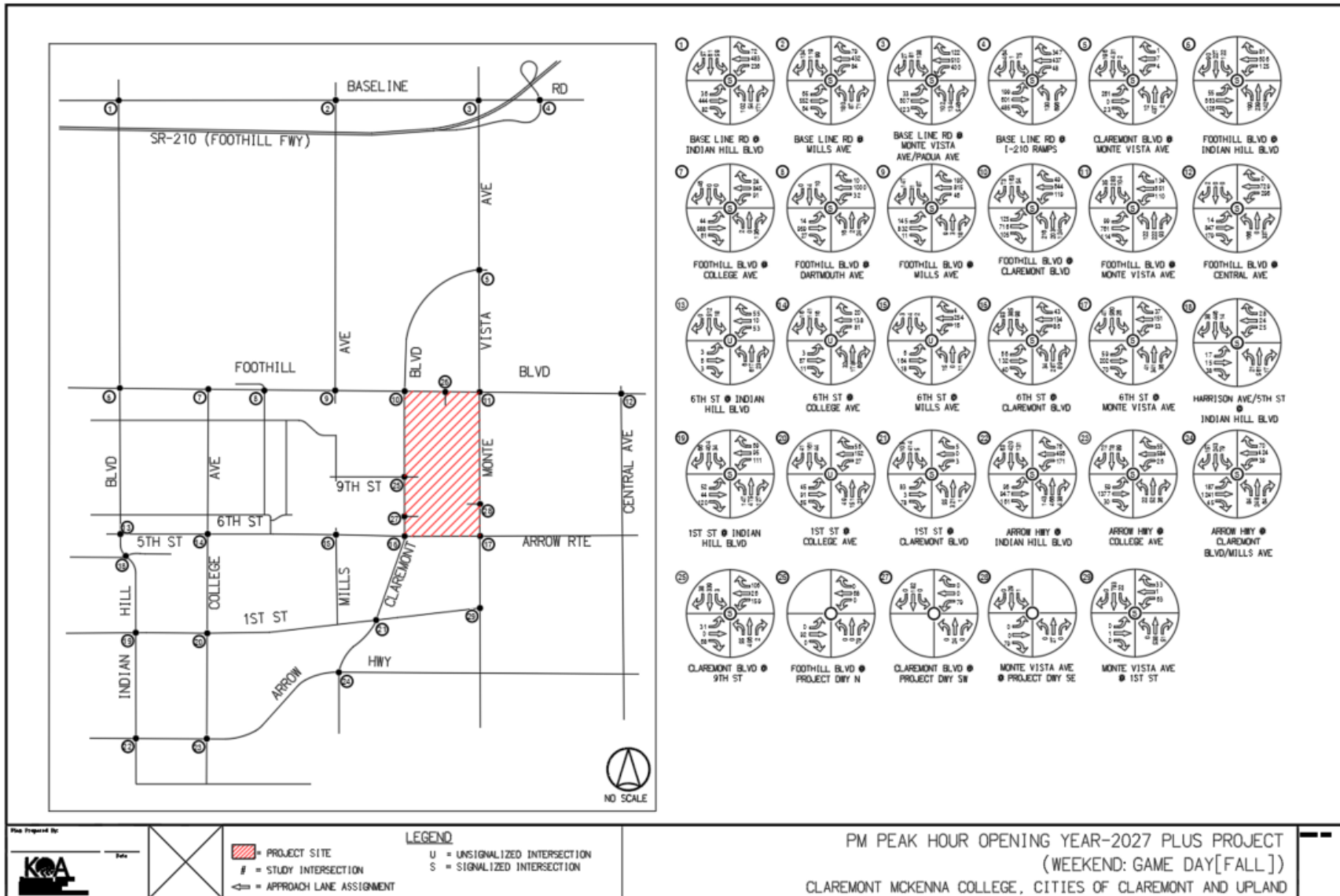


FIGURE 5.24 OPENING YEAR 2027 WITH PROJECT (WEEKEND GAME DAY [FALL]) INTERSECTION LOS – AM & PM PEAK HOURS

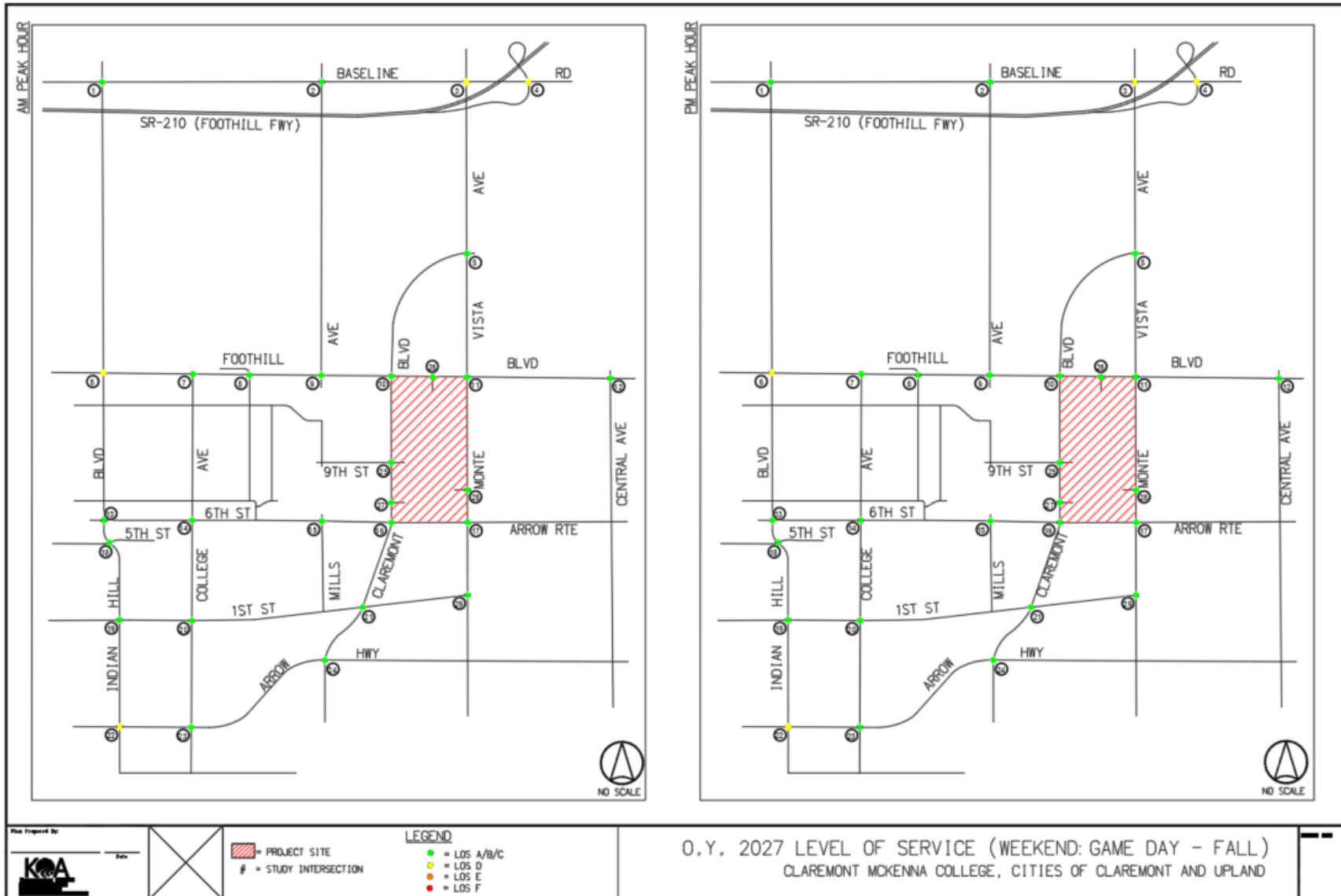


FIGURE 5.25 OPENING YEAR 2027 WITH PROJECT (WEEKEND GAME DAY [SPRING]) TRAFFIC VOLUMES – AM PEAK HOUR

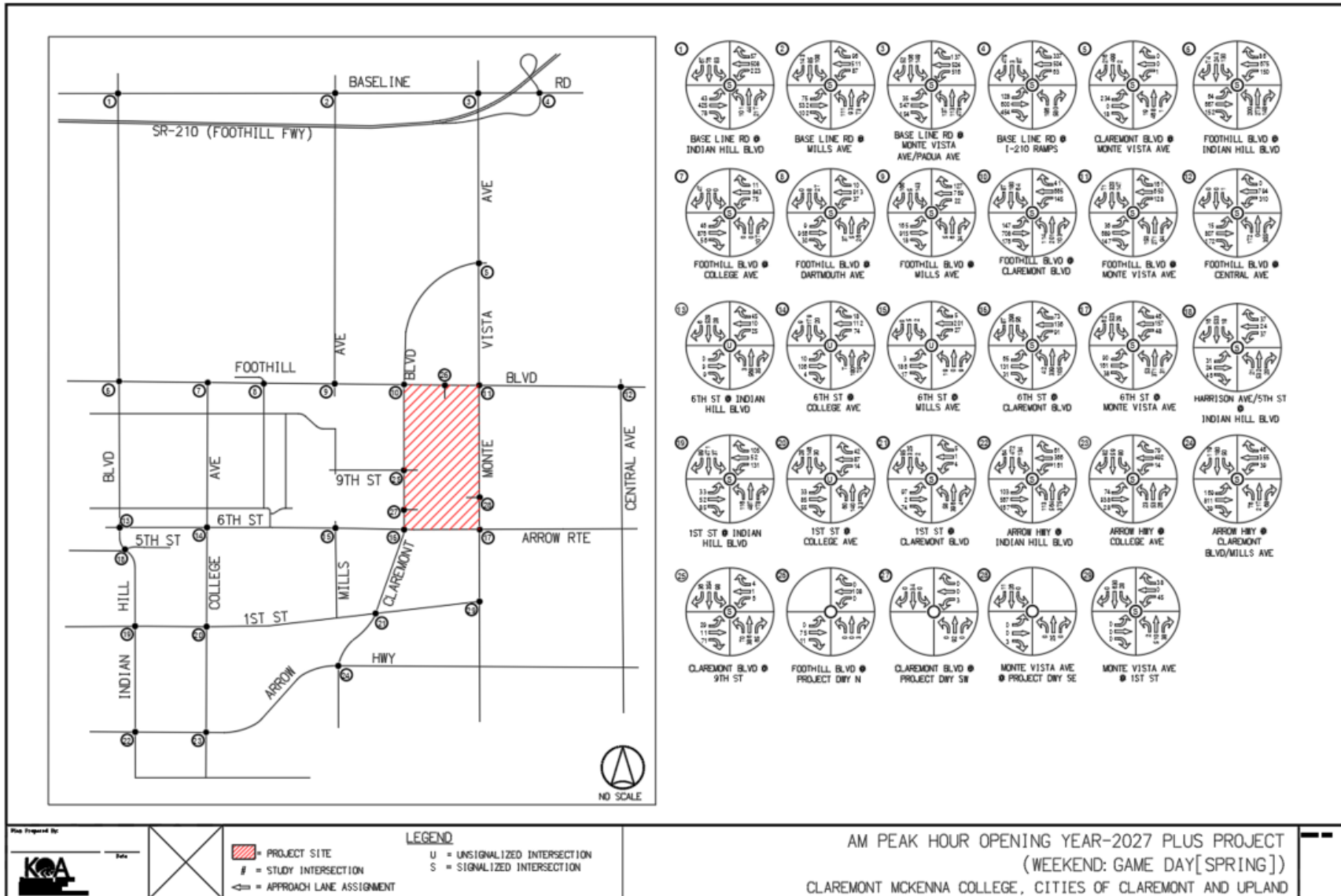


FIGURE 5.26 OPENING YEAR 2027 WITH PROJECT (WEEKEND GAME DAY [SPRING]) TRAFFIC VOLUMES – PM PEAK HOUR

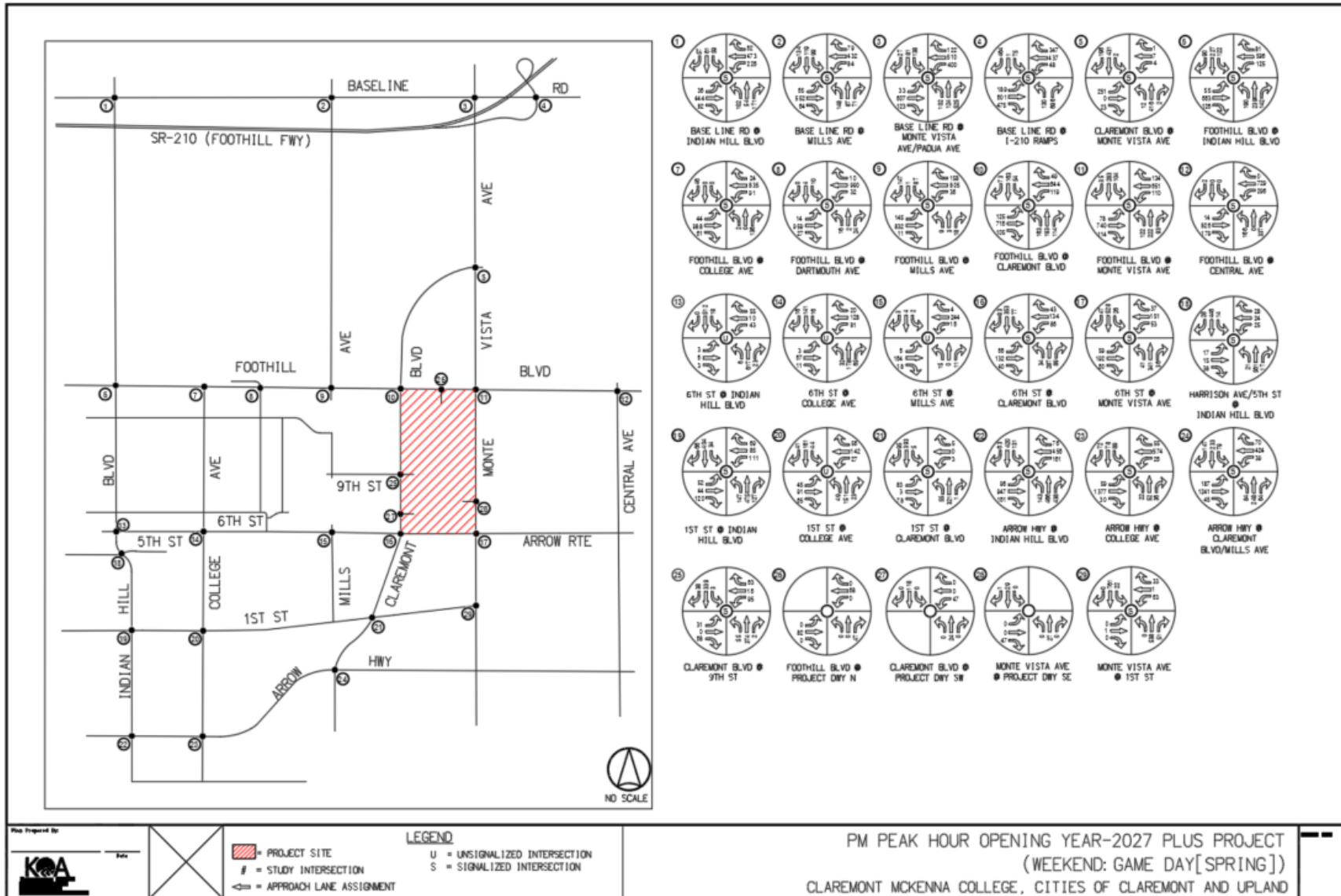
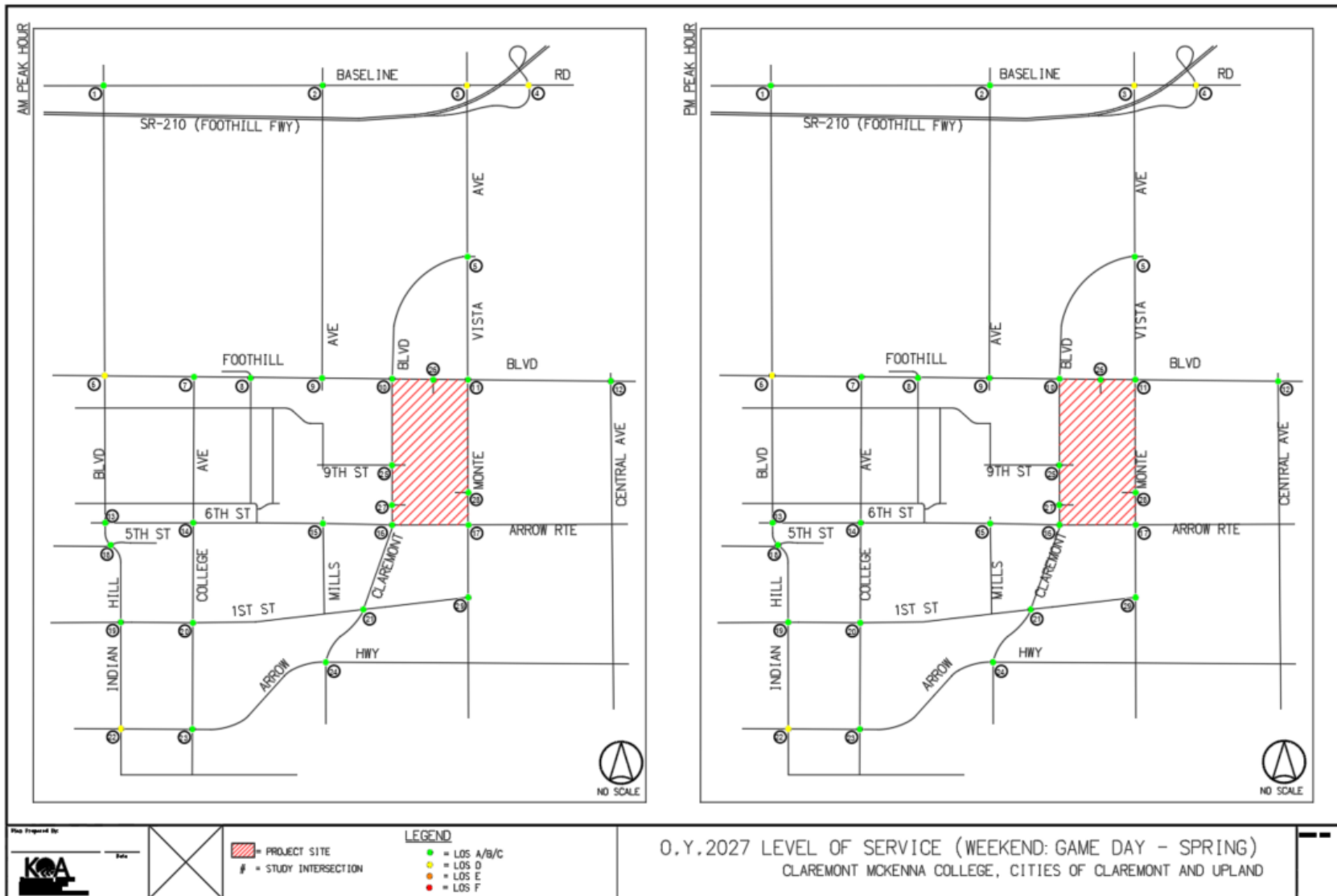


FIGURE 5.27 OPENING YEAR 2027 WITH PROJECT (WEEKEND GAME DAY [SPRING]) AM & PM PEAK HOUR LOS



5.4 HORIZON YEAR 2045

The long-range impacts of the Project's traffic volumes on the surrounding street network were evaluated under the context of intersection peak hour operating conditions in the Horizon Year 2045. The previously discussed capacity analysis procedures were utilized to investigate the effect of added project trips in the Year 2045, based on the incremental increases to intersection delay and level of service. The Project's potential "Non-CEQA impacts" at each key intersection was then determined using City traffic impact criteria previously described in this report.

5.4.1 Horizon Year 2045 Without Project Conditions

Horizon Year (HY) 2045 Without Project conditions reflect the long-range modeled regional traffic growth in the area, including all known additional cumulative developments assumed to be completed under the HY-2045 timeframe. From the list of cumulative projects shown on Table 5.1, project numbers 3, 4, 7, 8, 12-14, 26-30, and 32 were added to the previous OY-2027 cumulative project baseline trip forecast. The Future Year 2045 traffic volume forecasts were developed using the Southern California Association of Governments' (SCAG) Year 2040 model data as the basis. It should be noted that at the time of this study's preparation, SCAG's model is not generating link volume data for Year 2045, and therefore as a result the Year 2040 volumes were refined further to reflect Year 2045 projections and intersection turning movements at each study intersection.

The future land use assumptions in the SCAG model were then reviewed and compared to the estimated assumptions of household and employment growth for each related project to determine whether the growth from these related projects was already included within the model assumptions. If a proposed related project was estimated to exceed the growth associated with its Transportation Analysis Zone (TAZ), then it was determined that the SCAG does not include the related project in its future assumptions, and therefore the related project's trips were incorporated into the traffic forecast for the Without Project condition. If a proposed related project was estimated to not exceed the growth associated with its TAZ, then it was assumed that the related project's growth is already accounted for in the SCAG.

The HY-2045 weekday traffic volume conditions, without the Project's AM and PM peak hour trips, are illustrated in **Figures 5.28** and **5.29**.

HY-2045 Without Project traffic volume conditions were developed for the weekend MD and PM peak-hours as well, to reflect the potential effects of Saturday Game Day traffic on local traffic conditions in the Year 2045. **Figures 5.30** and **5.31** illustrate the HY-2045 weekend traffic volume conditions, without the Project's MD and PM peak hour trips.

Figures 5.32 and **5.33** graphically illustrate the comparison between Weekday and Weekend level of service results for the AM and PM peak hours.

Table 5.6 represents the level of service during the weekday and weekend AM and PM under the Horizon Year 2045 cumulative traffic conditions.

TABLE 5.6 HORIZON YEAR 2045 WITHOUT PROJECT LOS SUMMARY

Study Intersection		Minimum Acceptable LOS	Peak Hour	Weekday		Weekend	
No.	Intersection			LOS	Delay	LOS	Delay
1	Base Line Rd & Indian Hill Blvd	E	AM	C	26.9	C	24.1
			PM	C	26.2	C	22.7
2	Base Line Rd & Mills Ave	E	AM	D	39.8	C	20.6
			PM	C	24.1	C	23.2
3	Base Line Rd & Monte Vista/Padua Ave	E	AM	D	41.3	D	46.3
			PM	E	66.9	D	44
4	Base Line Rd & I-210 Ramps	E	AM	E	69.6	E	72.5
			PM	D	49.6	D	46.2
5	Claremont Blvd & Monte Vista Ave	E	AM	C	21.8	B	11.9
			PM	B	19.4	C	20.7
6	Foothill Blvd & Indian Hill Blvd	E	AM	E	63.5	E	58.4
			PM	E	60.9	E	62.3
7	Foothill Blvd & College Ave	E	AM	A	1.5	A	1.5
			PM	A	1.4	A	2.1
8	Foothill Blvd & Dartmouth Ave	E	AM	B	12.9	B	14.3
			PM	B	15.2	B	14.0
9	Foothill Blvd & Mills Ave	E	AM	C	33.4	C	30.3
			PM	C	32.9	C	28.4
10	Foothill Blvd & Claremont Blvd	E	AM	C	23.9	C	21.9
			PM	C	22.0	C	21.5
11	Foothill Blvd & Monte Vista Ave	D	AM	C	28.7	C	32.3
			PM	D	39.1	C	25.4
12	Foothill Blvd & Central Ave	D	AM	B	18.6	C	24.2
			PM	C	32.6	C	23.5
13	6th St & Indian Hill Blvd	D	AM	F	54.9	F	71.3
			PM	F	68.0	F	99.3
14	6th St & College Ave	D	AM	C	17.8	C	22.5
			PM	E	40.1	E	37.2
15	6th St & Mills Ave	D	AM	A	9.3	B	10.8
			PM	B	12.3	B	11.6
16	6th St/Arrow Rte & Claremont Blvd	D	AM	C	32.0	D	37.1
			PM	D	42.4	D	35.9
17	Arrow Rte & Monte Vista Ave	D	AM	D	38.3	D	39.1
			PM	C	29.0	C	26.3
18	Harrison Ave/5th St & Indian Hill Blvd	D	AM	C	28.4	B	15.1
			PM	C	31.7	C	23.3
19	1st St & Indian Hill Blvd	D	AM	B	18	C	23.5
			PM	C	22.1	C	21.1
20	1st St & College Ave	D	AM	C	20.4	B	14.2
			PM	F	79.5	E	42.5
21	1st St & Claremont Blvd	D	AM	B	11.4	A	8.5
			PM	B	19.0	B	15.0
22	Arrow Hwy & Indian Hill Blvd	E	AM	E	61.0	D	47.4
			PM	E	60.1	E	65.2
23	Arrow Hwy & College Ave	E	AM	B	13.1	B	13.5
			PM	B	12.2	B	14.1
24	Arrow Hwy & Claremont Blvd/Mills Ave	E	AM	E	67.8	C	34.0
			PM	D	49.8	D	36.1
25	Claremont Blvd & 9th St	D	AM	A	2.3	A	1.9
			PM	A	2.6	A	1.9

26	Foothill Blvd & Project Dwy N	E	AM	A	0.0	A	0.0
			PM	A	0.0	A	0.0
27	Claremont Blvd & Project Dwy SW	D	AM	A	0.0	A	0.0
			PM	A	0.0	A	0.0
28	Monte Vista Ave & Project Dwy SE	D	AM	A	0.0	A	0.0
			PM	A	0.0	A	0.0
29	Monte Vista Ave & 1st St/Richton St	D	AM	B	12.7	A	7.4
			PM	B	10.5	B	11.4

Delay/LOS values indicate unacceptable service levels based on LOS Criteria identified in this report.

Review of column LOS and Delay of Table 5.6 shows that four of the key study intersections are forecast to operate at unacceptable levels of service during the AM and/or PM peak hours under the Year 2045 Cumulative Weekday and Weekend traffic conditions. The remaining key study intersections are forecast to operate at acceptable levels of service during the AM and PM peak hours under the Year 2045 Cumulative traffic conditions. The intersections forecast to have unacceptable levels of service are as follows:

Intersection Name	Jurisdiction	Peak Hour	Weekday		Weekend	
			LOS	Delay	LOS	Delay
13. 6 th St & Indian Hill Blvd	Claremont	AM	F	54.9	F	71.3
		PM	F	68.0	F	99.3
14. 6 th St & College Ave	Claremont	PM	E	40.1	E	37.2
20. 1 st St & College Ave	Claremont	PM	F	79.5	E	42.5

Appendix E contains the Horizon Year without Project Traffic Conditions Delay/LOS calculation worksheets for the key study intersections.

FIGURE 5.28 HORIZON YEAR 2045 WITHOUT PROJECT: WEEKDAY AM

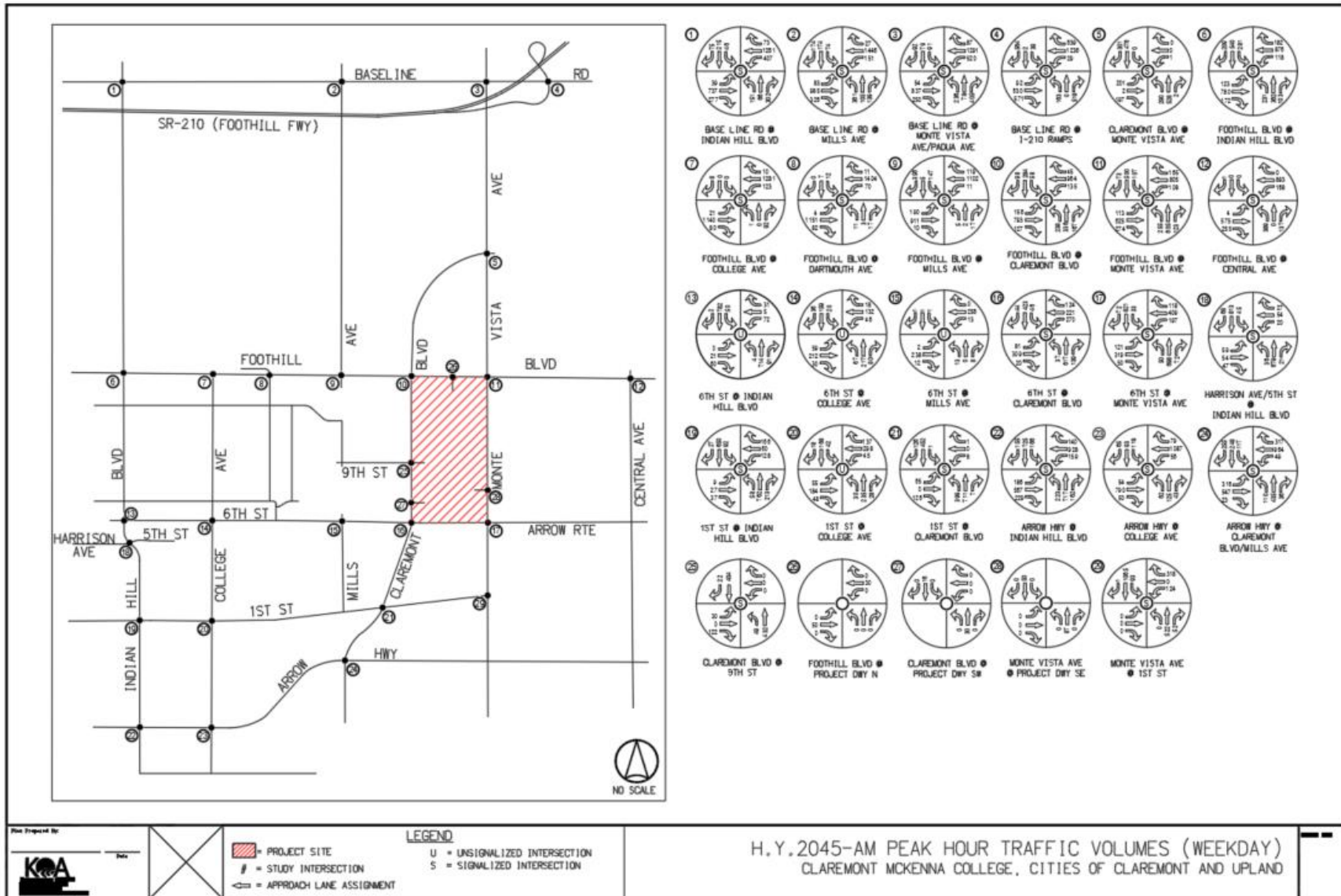


FIGURE 5.29 HORIZON YEAR 2045 WITHOUT PROJECT: WEEKDAY PM

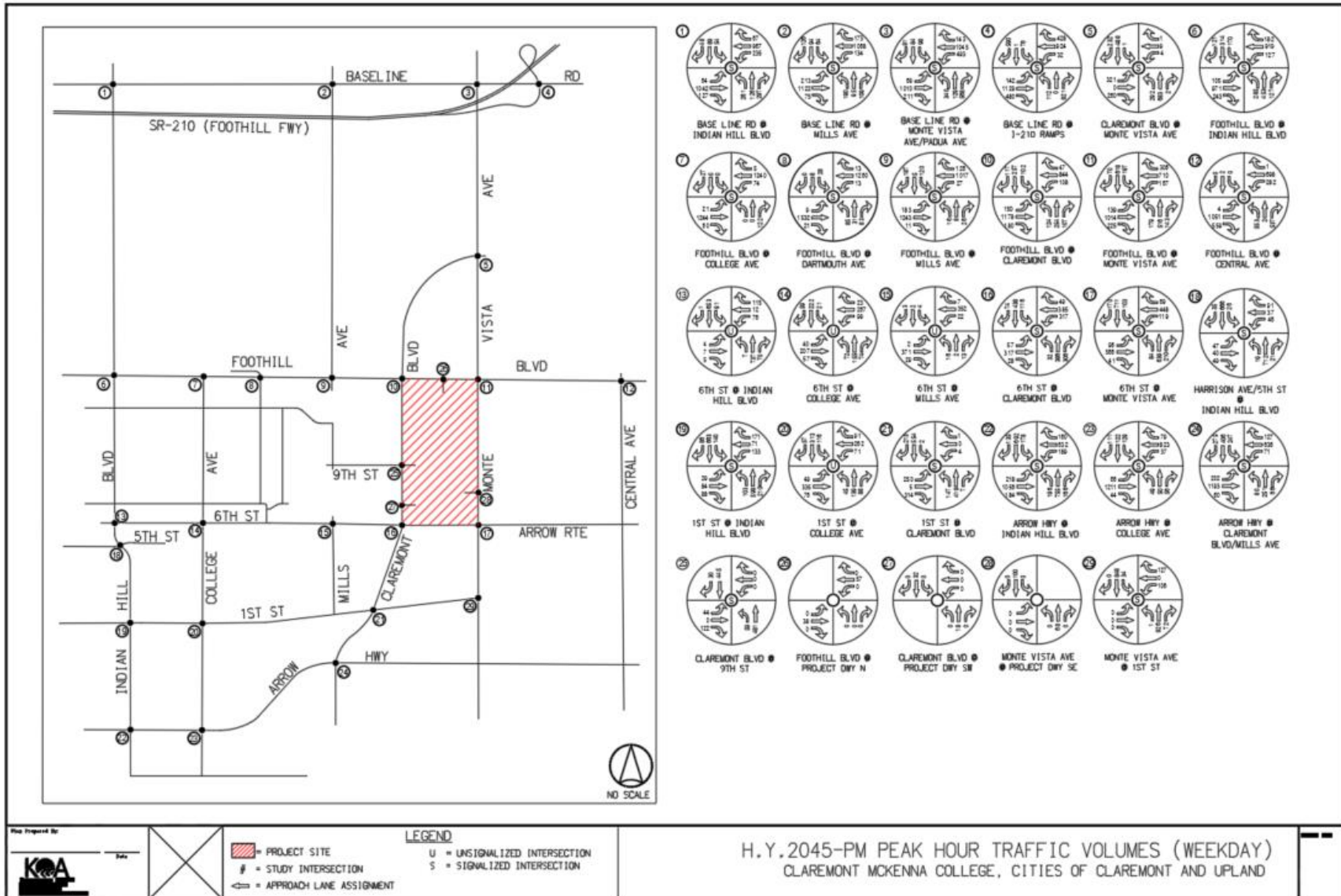


FIGURE 5.30 HORIZON YEAR 2045 WITHOUT PROJECT: WEEKEND MD

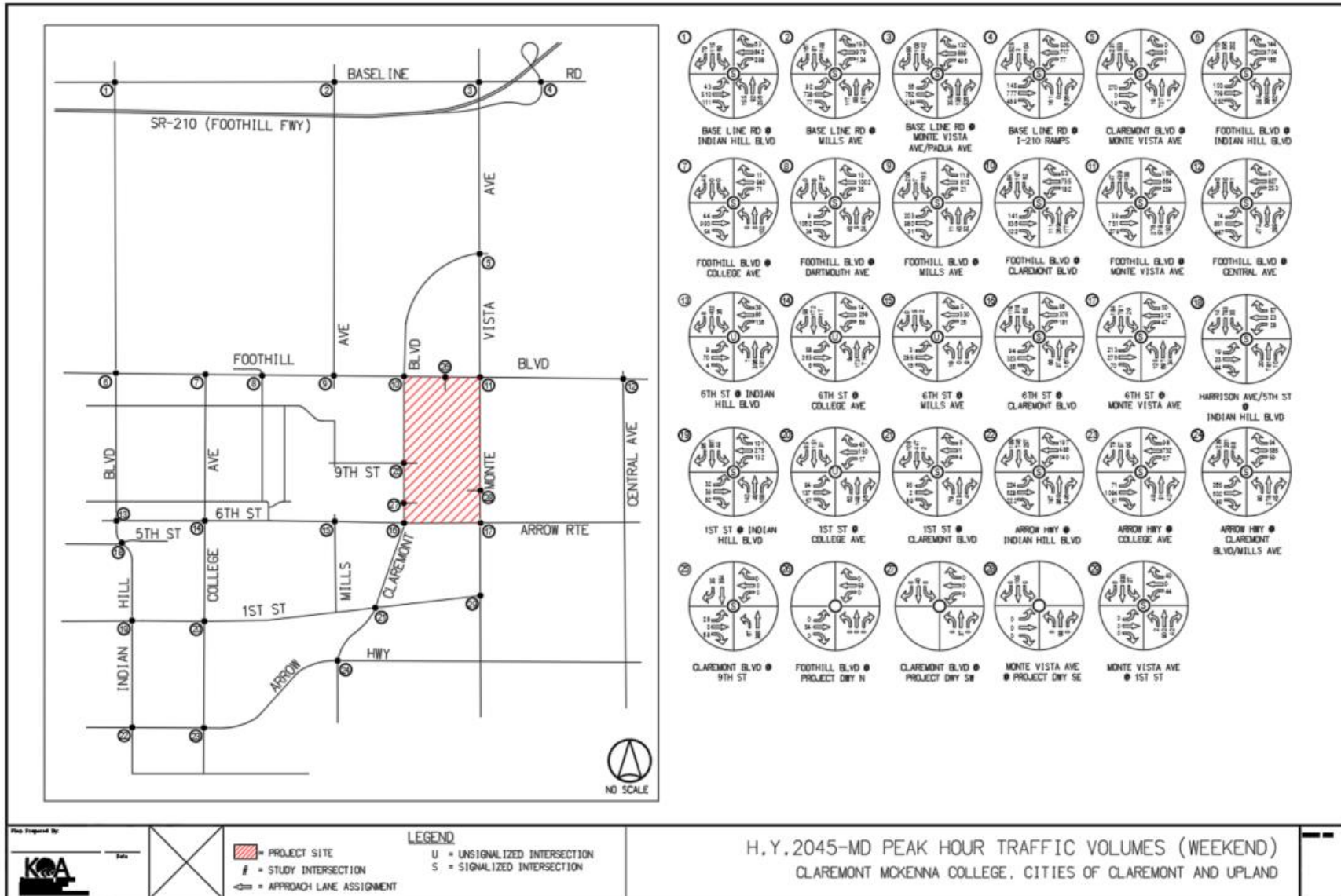


FIGURE 5.31 HORIZON YEAR 2045 WITHOUT PROJECT: WEEKEND PM

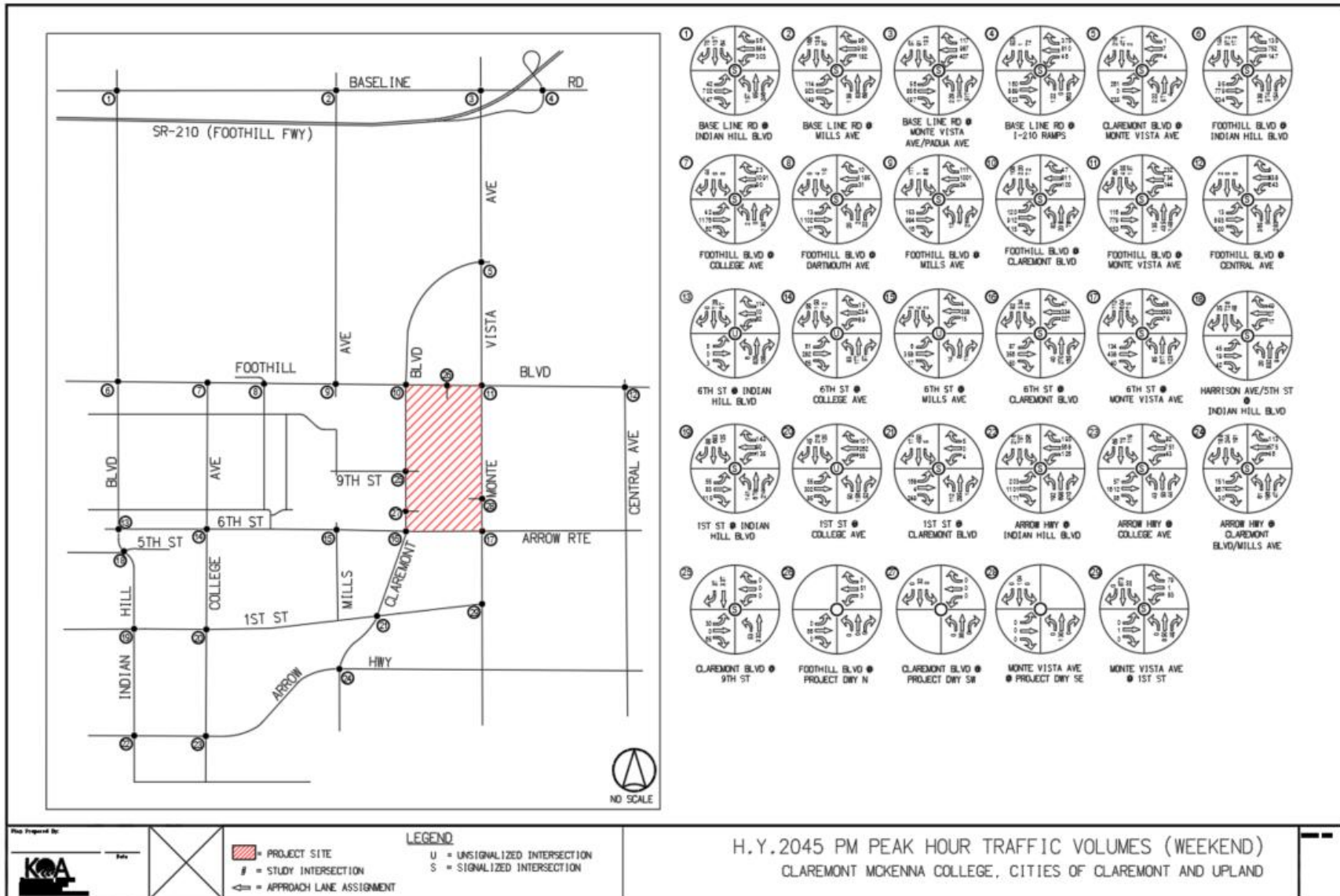


FIGURE 5.32 HORIZON YEAR 2045 WITHOUT PROJECT: WEEKDAY LOS

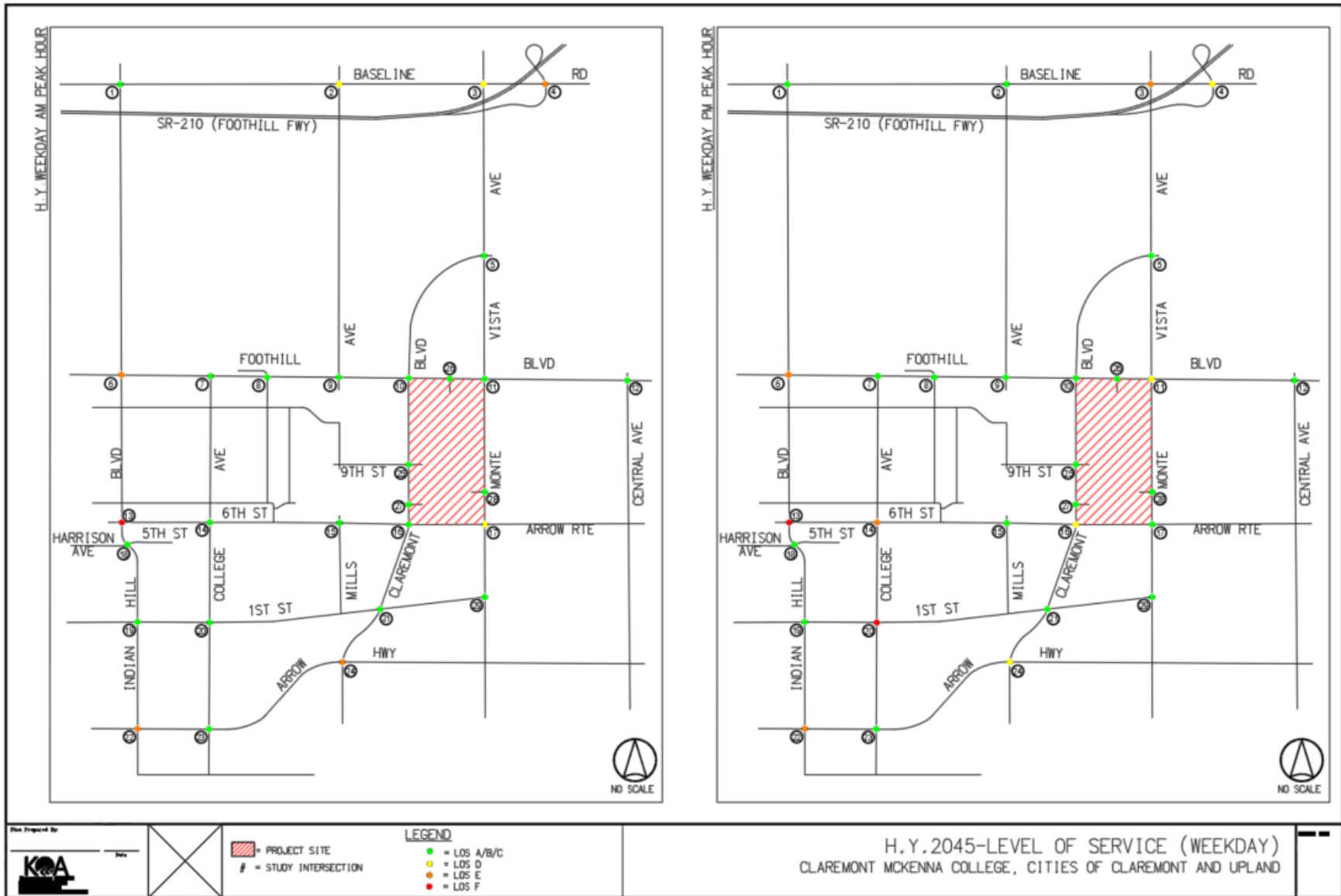
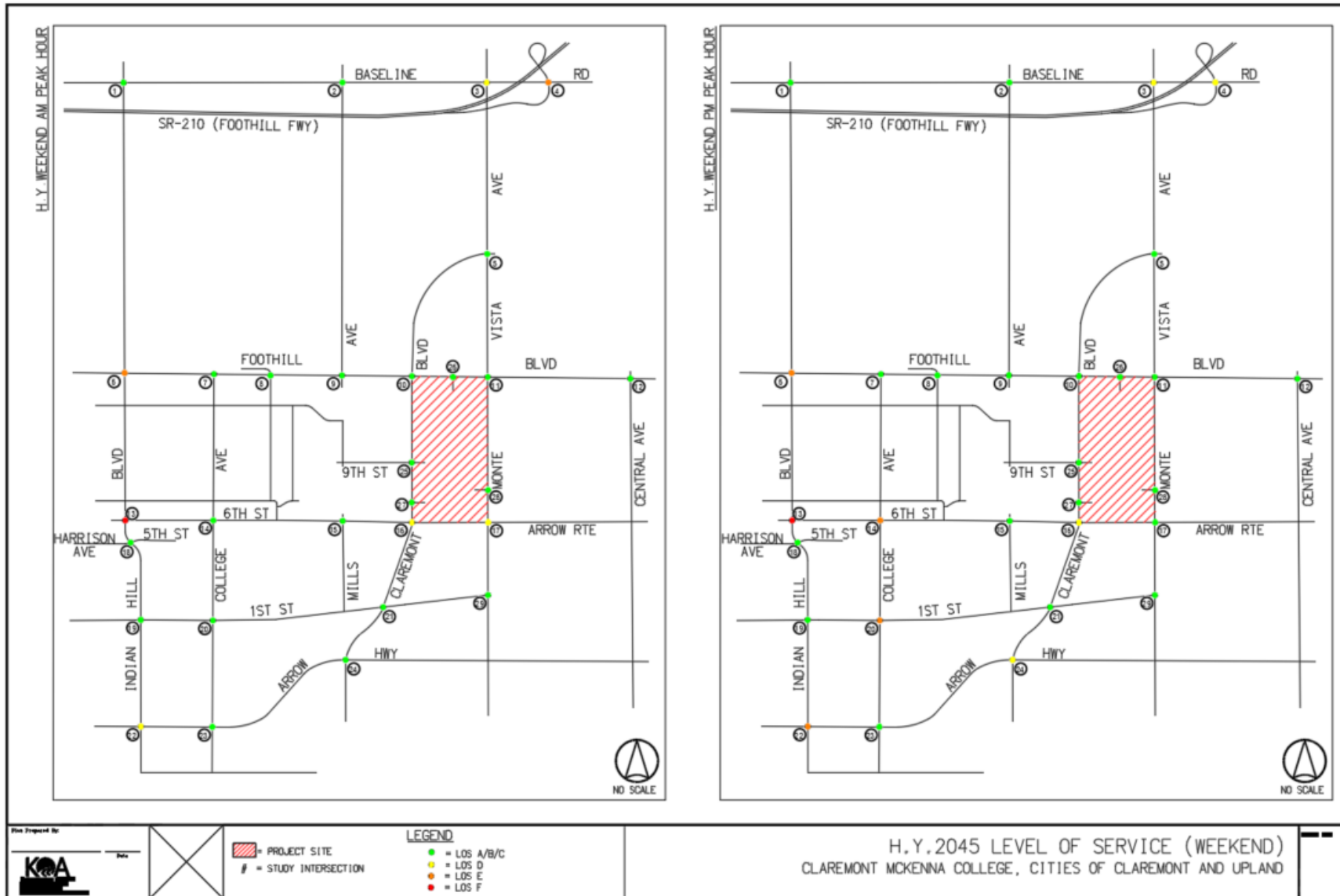


FIGURE 5.33 HORIZON YEAR 2045 WITHOUT PROJECT: WEEKEND LOS



5.4.2 Horizon Year 2045 With Project Conditions

A review of **Table 5.7** shows that under the Horizon Year 2045 scenario, the four (4) study intersections listed below are forecast to continue operating at unacceptable levels of service with the addition of Project traffic, based on the applicable (non-CEQA) LOS impact criteria:

- Intersection #4 - Base Line Road & I-210 On/Off-Ramps
 - Weekend Game Day (Fall and Spring) – AM Peak Hour
- Intersection #13 – 6th Street at Indian Hill Boulevard
 - Weekday Practice Day – AM and PM Peak Hours
 - Weekday Game Day – AM and PM Peak Hours
 - Weekend Game Day (Fall and Spring) – AM and PM Peak Hours
- Intersection #14 – 6th Street at College Avenue
 - Weekday Practice Day – PM Peak Hour
 - Weekday Game Day – PM Peak Hours
 - Weekend Game Day (Fall and Spring) – PM Peak Hour
- Intersection #20 – 1st Street at College Avenue
 - Weekday Practice Day – PM Peak Hour
 - Weekday Game Day – PM Peak Hours
 - Weekend Game Day (Fall and Spring) – PM Peak Hour

The remaining key study intersections are forecast to operate at an acceptable level of service during all Practice and Game Days under the Horizon Year 20245 conditions.

TABLE 5.7 HORIZON YEAR 2045 WITH PROJECT LOS SUMMARY

No.	Intersection	Acceptable LOS	Practice Day		Game Day		Game Day (Fall)		Game Day (Spring)		
			Peak Hour	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Base Line Rd & Indian Hill Blvd	E	AM	C	29.0	C	21.3	B	12.9	B	12.8
			PM	B	18.0	B	18.1	B	15.1	B	15.0
2	Base Line Rd & Mills Ave	E	AM	B	19.2	B	17.3	B	12.4	B	12.4
			PM	B	17.4	B	17.7	B	12.7	B	12.4
3	Base Line Rd & Monte Vista/Padua Ave	E	AM	D	41.8	D	41.8	D	50.2	C	48.4
			PM	E	70.3	E	72.2	D	52.4	D	49.1
4	Base Line Rd & I-210 Ramps	E	AM	E	69.6	E	69.6	F	86.7	F	85.7
			PM	D	51.0	D	52.3	D	46.2	D	46.4
5	Claremont Blvd & Monte Vista Ave	E	AM	C	21.8	C	21.8	B	11.9	B	11.9
			PM	B	19.4	B	19.7	C	20.7	C	20.7
6	Foothill Blvd & Indian Hill Blvd	E	AM	E	63.8	E	63.8	E	57.6	E	57.3
			PM	E	57.3	E	57.3	E	57.9	E	58.0
7	Foothill Blvd & College Ave	E	AM	A	1.5	A	1.5	A	1.5	A	1.5
			PM	A	1.4	A	1.4	A	2.1	A	2.1
8	Foothill Blvd & Dartmouth Ave	E	AM	B	12.9	B	12.8	B	13.8	B	13.9
			PM	B	15.2	B	15.2	B	14.3	B	14.2
9	Foothill Blvd & Mills Ave	E	AM	C	33.5	C	33.5	C	33.4	C	33.2
			PM	C	33.4	C	32.3	C	29.6	C	29.2
10	Foothill Blvd & Claremont Blvd	E	AM	C	23.9	C	23.9	C	23.2	C	22.5
			PM	C	21.9	C	22.0	C	21.3	C	21.3
11	Foothill Blvd & Monte Vista Ave	D	AM	C	28.7	C	28.7	C	32.2	C	32.2
			PM	D	42.2	D	44.5	C	32.5	C	29.0
12	Foothill Blvd & Central Ave	D	AM	B	18.6	B	18.6	C	24.2	C	24.2
			PM	C	33.1	C	33.5	C	24.1	C	23.8
13	6th St & Indian Hill Blvd	D	AM	E	54.9	E	54.9	E	74.5	E	73.1
			PM	F	77.1	E	85.3	F	148.3	F	127.8
14	6th St & College Ave	D	AM	C	17.8	C	17.8	C	24.0	C	23.4
			PM	E	42.5	E	44.1	E	45.2	E	42.3
15	6th St & Mills Ave	D	AM	A	9.3	A	9.3	B	11.0	B	10.9
			PM	B	12.4	B	12.5	B	12.0	B	11.8
16	6th St/Arrow Rte & Claremont Blvd	D	AM	C	32.0	C	32.0	D	37.8	D	37.4
			PM	D	42.5	D	42.6	D	37.6	D	36.7
17	Arrow Rte & Monte Vista Ave	D	AM	D	38.3	D	38.3	D	40.0	D	39.7
			PM	C	29.2	C	29.3	C	26.3	C	26.3
18	Harrison Ave/5th St & Indian Hill Blvd	D	AM	C	30.9	C	30.9	C	23.5	C	23.2
			PM	C	23.1	C	23.0	C	23.1	C	23.1
19	1st St & Indian Hill Blvd	D	AM	B	18.5	B	18.5	C	21.8	C	21.4
			PM	C	20.3	C	20.1	C	22.6	C	22.1

20	1st St & College Ave	D	AM	C	20.4	C	20.4	B	14.5	B	14.3
			PM	F	80.5	F	81.3	E	45.4	E	44.3
21	1st St & Claremont Blvd	D	AM	B	11.4	B	11.4	A	8.8	A	8.7
			PM	B	17.5	B	17.5	B	14.7	B	14.8
22	Arrow Hwy & Indian Hill Blvd	E	AM	B	16.5	B	16.1	B	17.2	B	17.2
			PM	B	17.4	B	17.9	B	18.0	B	17.8
23	Arrow Hwy & College Ave	E	AM	B	12.8	B	12.8	B	14.0	B	14.0
			PM	B	13.7	B	13.7	B	15.7	B	15.7
24	Arrow Hwy & Claremont Blvd/Mills Ave	E	AM	E	67.8	E	67.8	C	34.3	C	34.2
			PM	D	49.9	D	49.4	D	35.9	D	36.0
25	Claremont Blvd & 9th St	D	AM	B	12.0	B	10.9	C	28.0	B	17.4
			PM	B	16.4	B	17.9	C	20.5	B	18.1
26	Foothill Blvd & Project Dwy N	E	AM	A	0.0	A	0.0	A	0.1	A	0.2
			PM	A	1.5	A	2.2	A	3.2	A	2.3
27	Claremont Blvd & Project Dwy SW	D	AM	A	0.0	A	0.0	A	0.2	A	0.2
			PM	A	1.6	A	1.9	a	2.2	A	1.9
28	Monte Vista Ave & Project Dwy SE	D	AM	A	0.0	A	0.0	A	0.1	A	0.1
			PM	A	1.1	A	1.7	A	2.4	A	1.6
29	Monte Vista Ave & 1st St/Richton St	D	AM	A	8.7	A	8.5	A	4.3	A	4.2
			PM	A	5.9	A	5.9	A	5.0	a	5.0

Delay/LOS values indicate unacceptable service levels based on LOS Criteria identified in this report.

5.4.2a Horizon Year 2045 Cumulative Plus Project (Weekday: Practice Day) Traffic

Project trip estimates for the Weekday: Practice Day scenario, as shown on Table 5.3, were added to the Horizon Year 2045 Cumulative Without Project conditions to develop traffic projections for the Year 2045 Cumulative Plus Project (Weekday: Practice Day) traffic conditions. The resulting traffic volumes during the AM and PM peak hours at the key study intersections are illustrated in **Figures 5.34** and **5.35**, respectively. **Figure 5.36** graphically illustrates the comparison between Weekday and Weekend level of service results for the AM and PM peak hours.

5.4.2b Horizon Year 2045 Cumulative Plus Project (Weekday: Game Day) Traffic

Project trip estimates for the Weekday: Game Day scenario, as shown on Table 5.3, were added to the Horizon Year 2045 Cumulative Without Project conditions to develop traffic projections for the Year 2045 Cumulative Plus Project (Weekday: Game Day) traffic conditions. The resulting traffic volumes during the AM and PM peak hours at the key study intersections are illustrated in **Figures 5.37** and **5.38**, respectively. **Figure 5.39** graphically illustrates the comparison between Weekday and Weekend level of service results for the AM and PM peak hours.

5.4.2c Horizon Year 2027 Cumulative Plus Project (Weekend: Game Day [Fall]) Traffic

Project trip estimates for the Weekend: Game Day (Fall) scenario, as shown on Table 5.3, were added to the Horizon Year 2045 Cumulative Without Project conditions to develop traffic projections for the Year 2045 Cumulative Plus Project (Weekend: Game Day – Fall) traffic conditions. The resulting traffic volumes during the AM and PM peak hours at the key study intersections are illustrated in **Figures 5.40** and **5.41**, respectively. **Figure 5.42** graphically illustrates the comparison between Weekday and Weekend level of service results for the AM and PM peak hours.

5.4.2d Horizon Year 2045 Cumulative Plus Project (Weekend: Game Day [Spring]) Traffic

Project trip estimates for the Weekend: Game Day (Spring) scenario, as shown on Table 5.3, were added to the Horizon Year 2045 Cumulative Without Project conditions to develop traffic projections for the Year 2045 Cumulative Plus Project (Weekend: Game Day – Spring) traffic conditions. The resulting traffic volumes during the AM and PM peak hours at the key study intersections are illustrated in **Figures 5.43** and **5.44**, respectively. **Figure 5.45** graphically illustrates the comparison between Weekday and Weekend level of service results for the AM and PM peak hours.

Appendix F contains the Horizon Year with Project Traffic Conditions Delay/LOS calculation worksheets for the key study intersections.

FIGURE 5.34 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: PRACTICE DAY AM

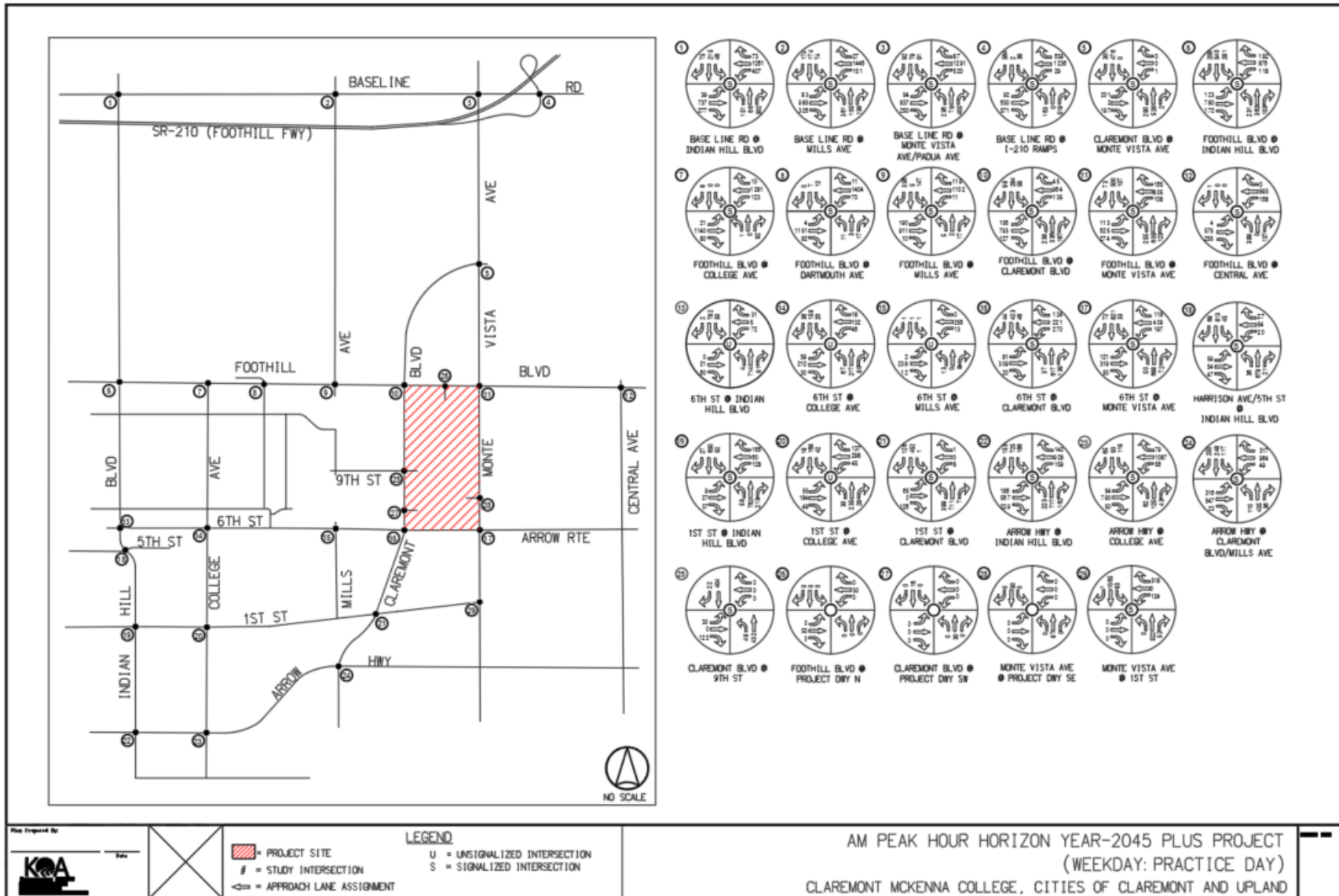


FIGURE 5.35 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: PRACTICE DAY PM

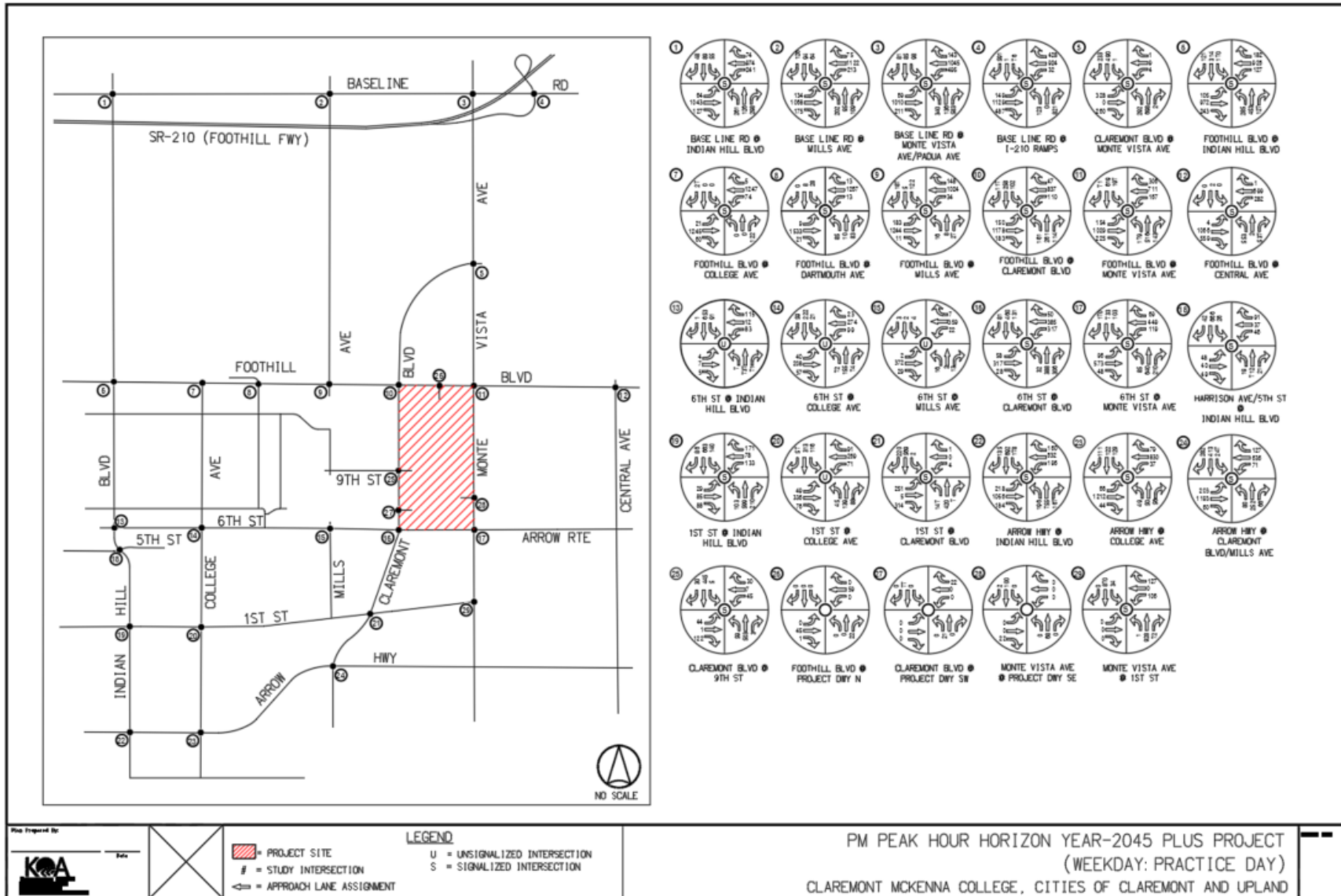


FIGURE 5.36 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: PRACTICE DAY LOS

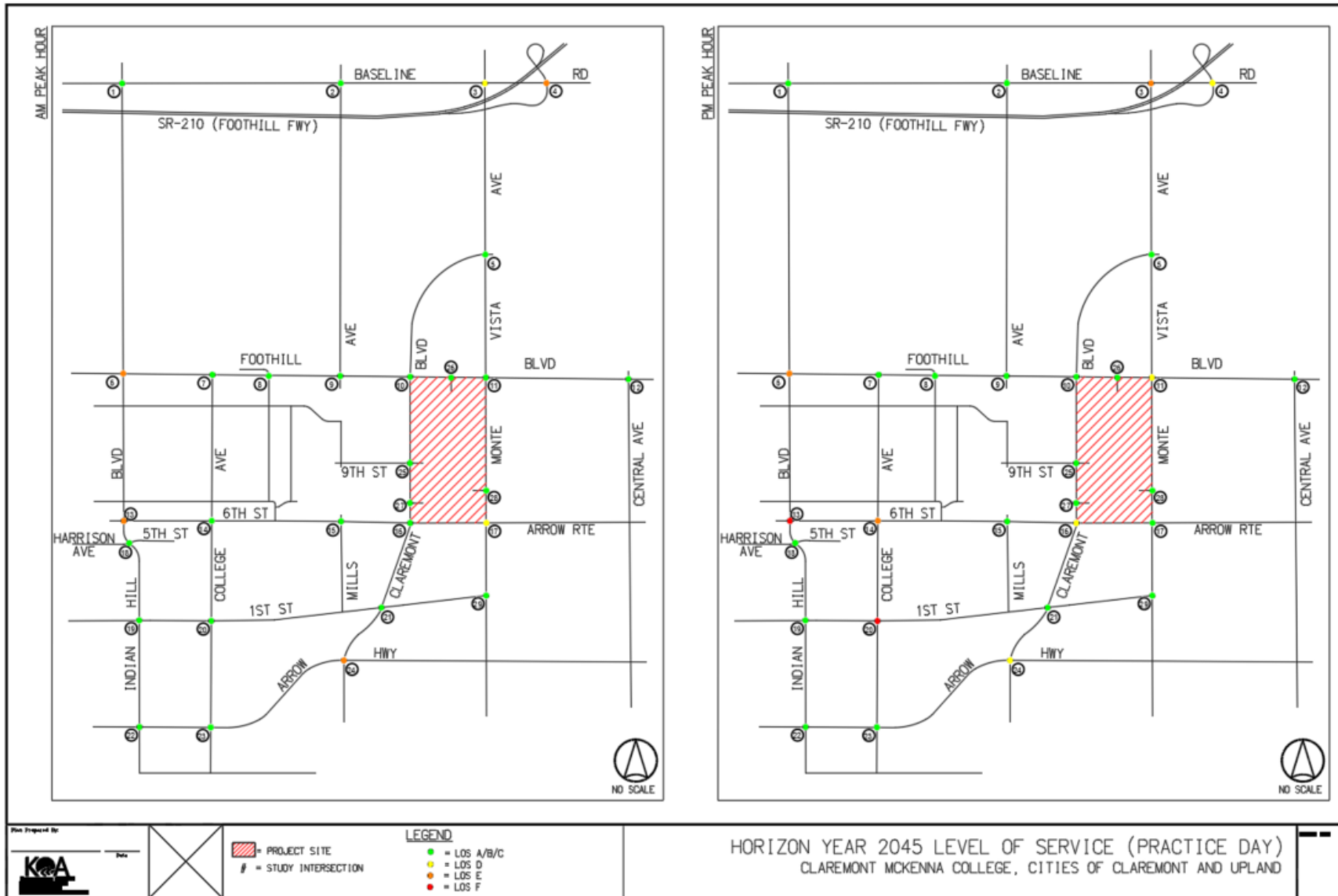


FIGURE 5.37 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: GAME DAY AM

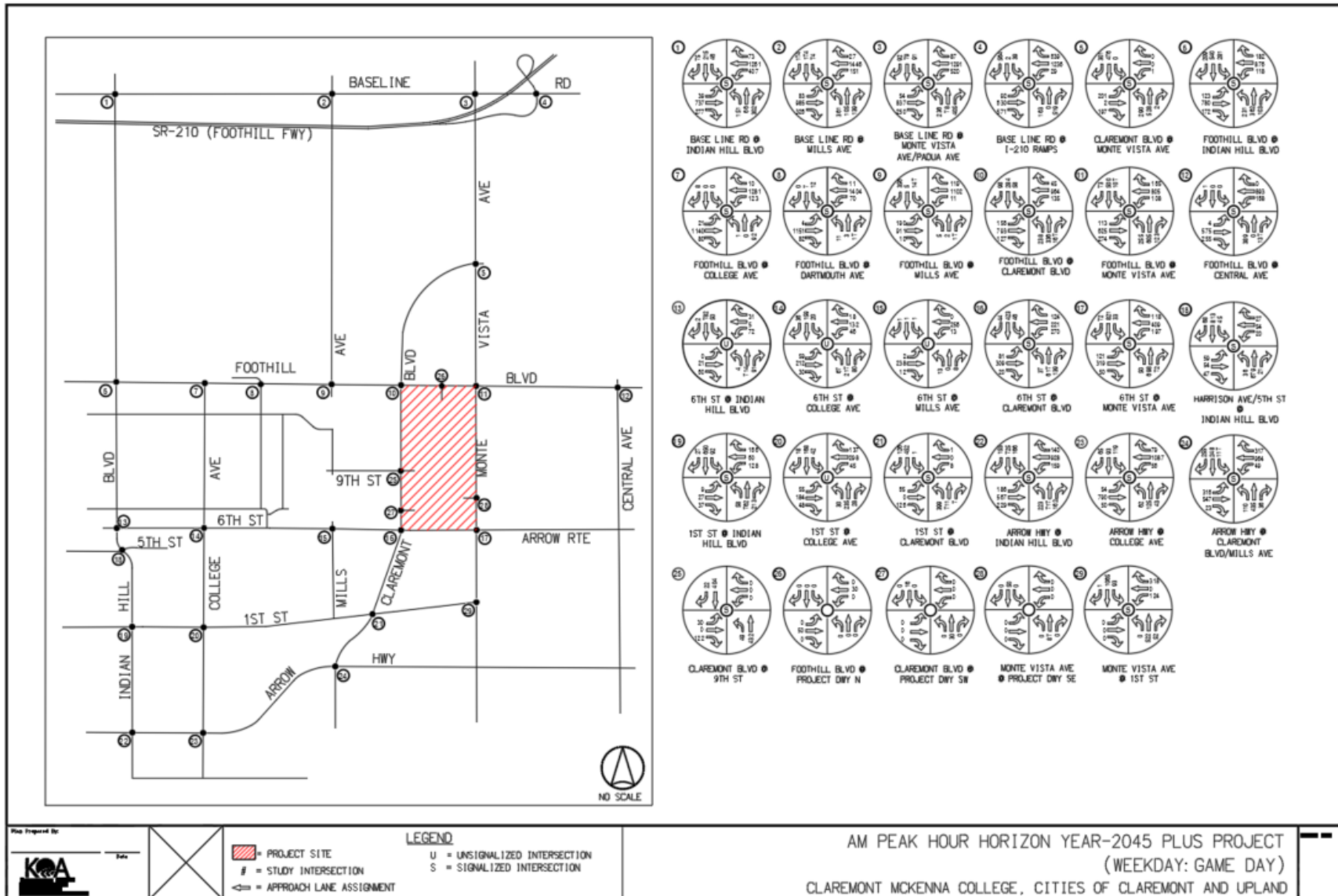


FIGURE 5.38 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: GAME DAY PM

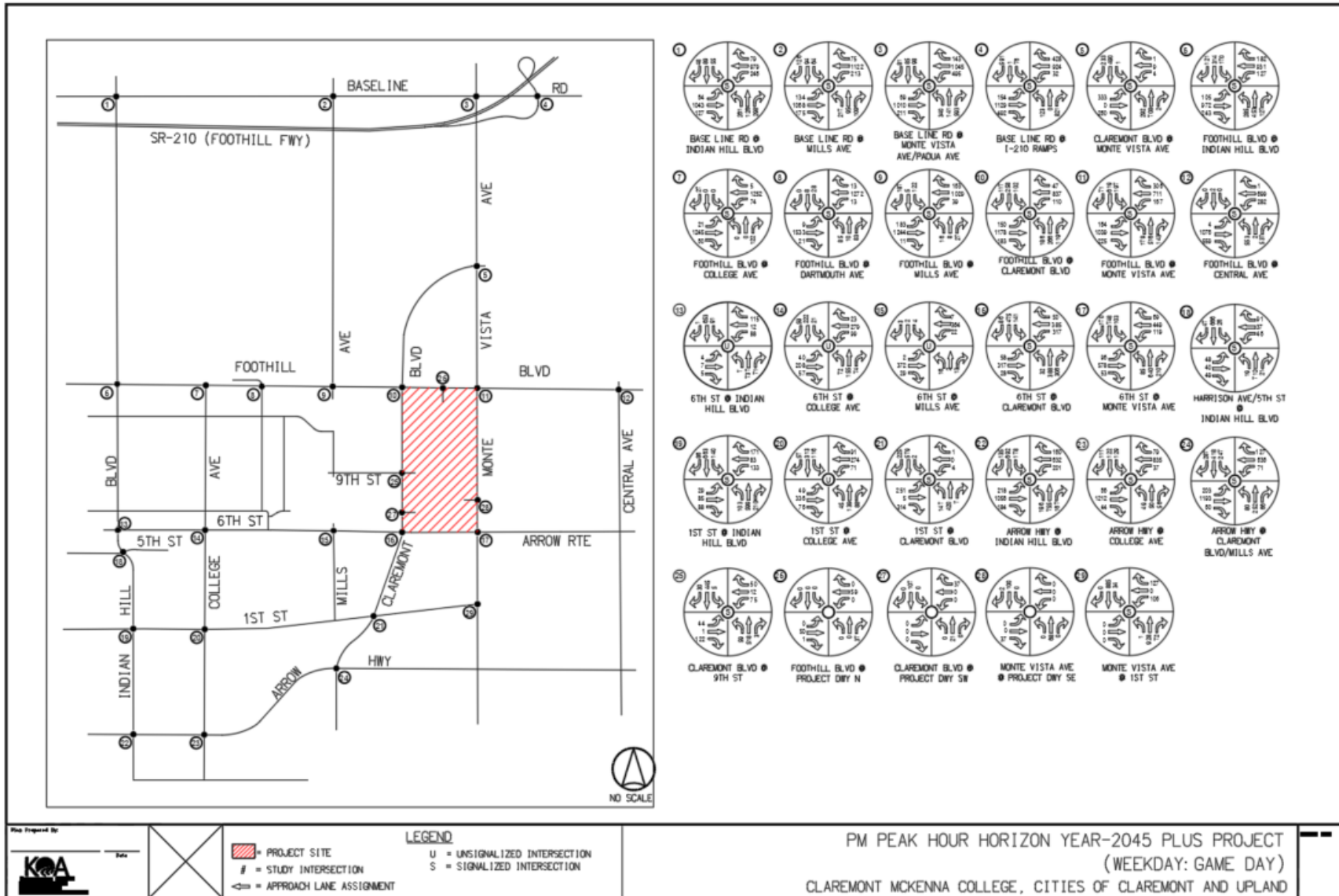


FIGURE 5.39 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: GAME DAY LOS

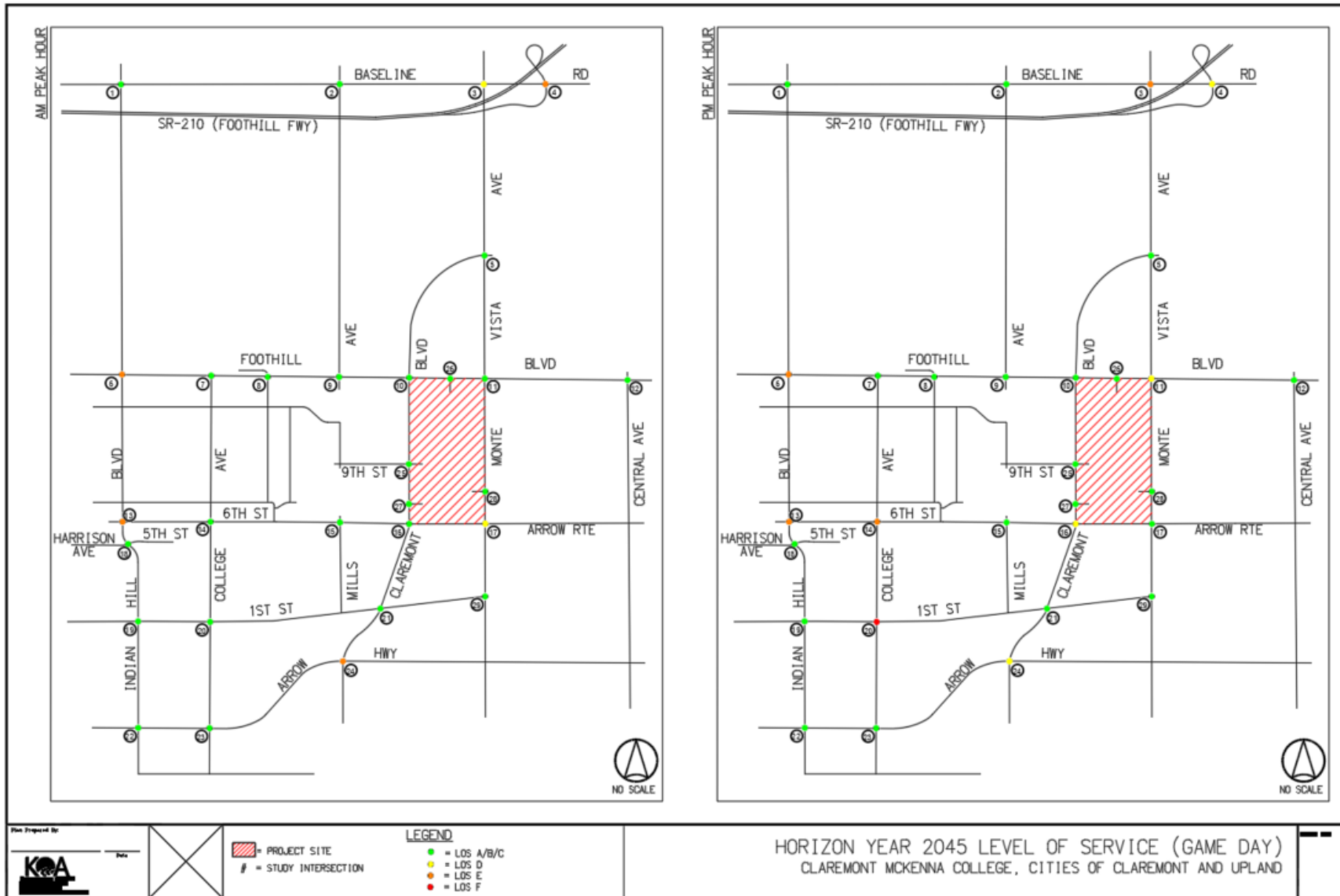


FIGURE 5.40 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: GAME DAY[FALL] AM

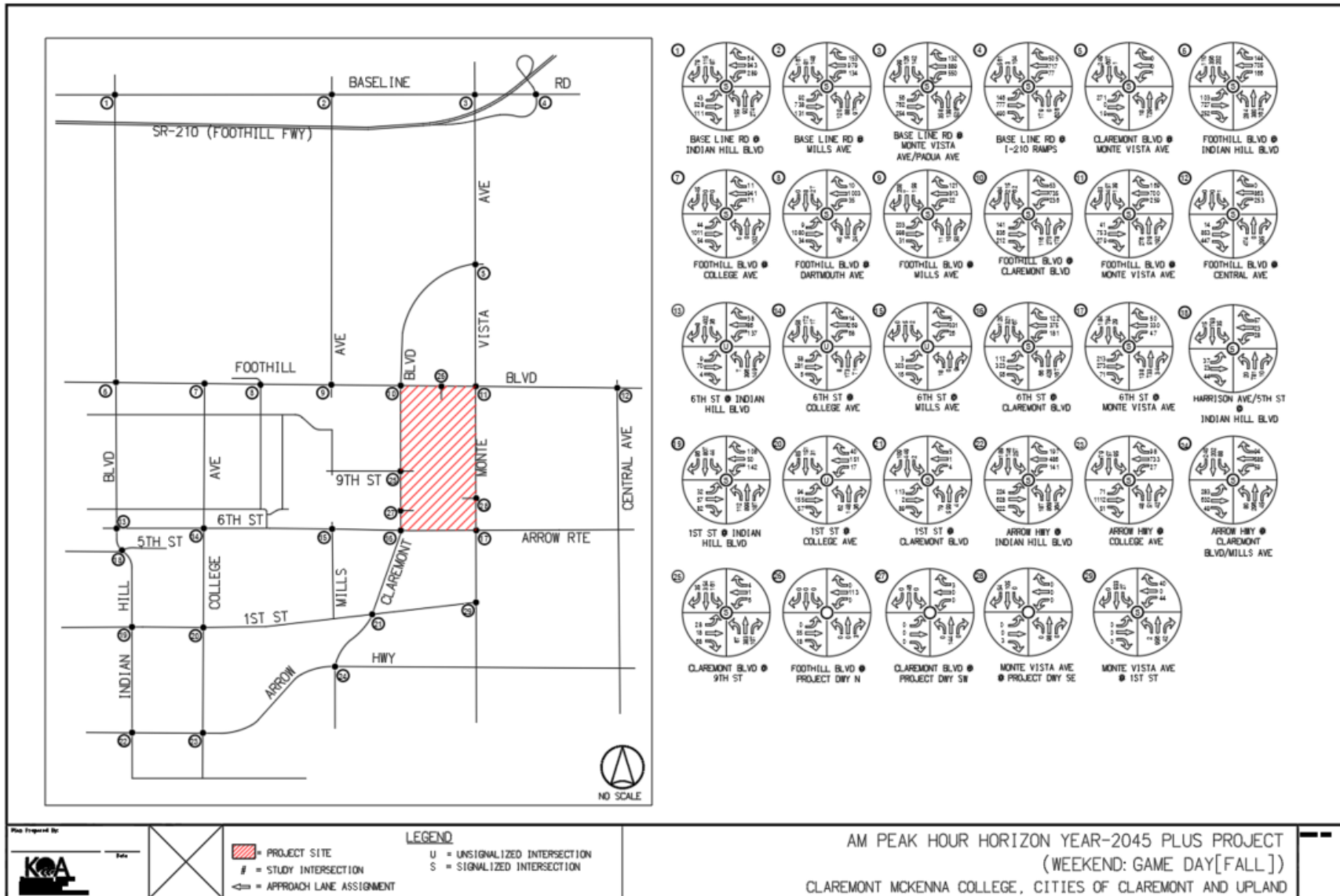


FIGURE 5.41 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: GAME DAY[FALL] PM

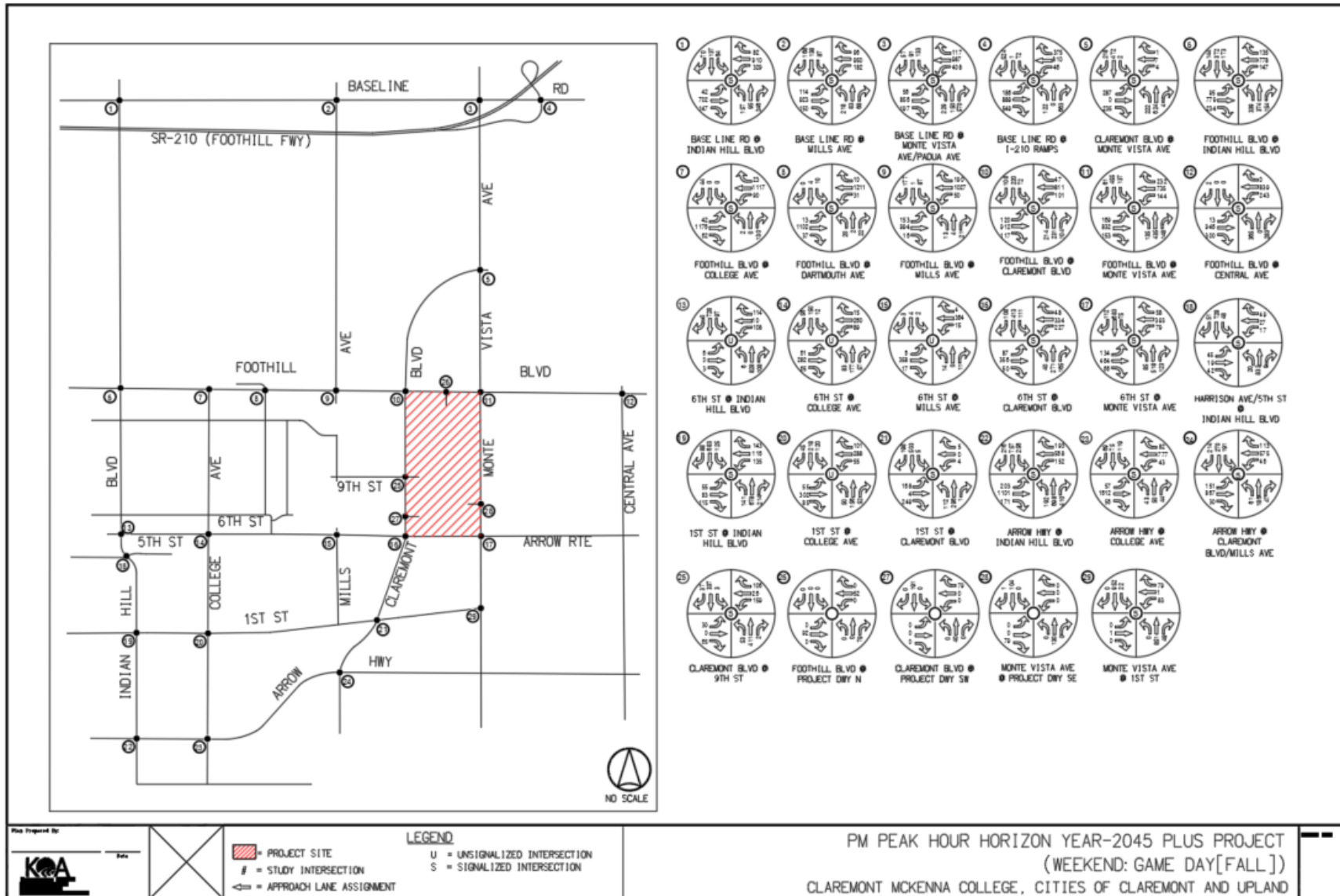


FIGURE 5.42 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: GAME DAY[FALL] LOS

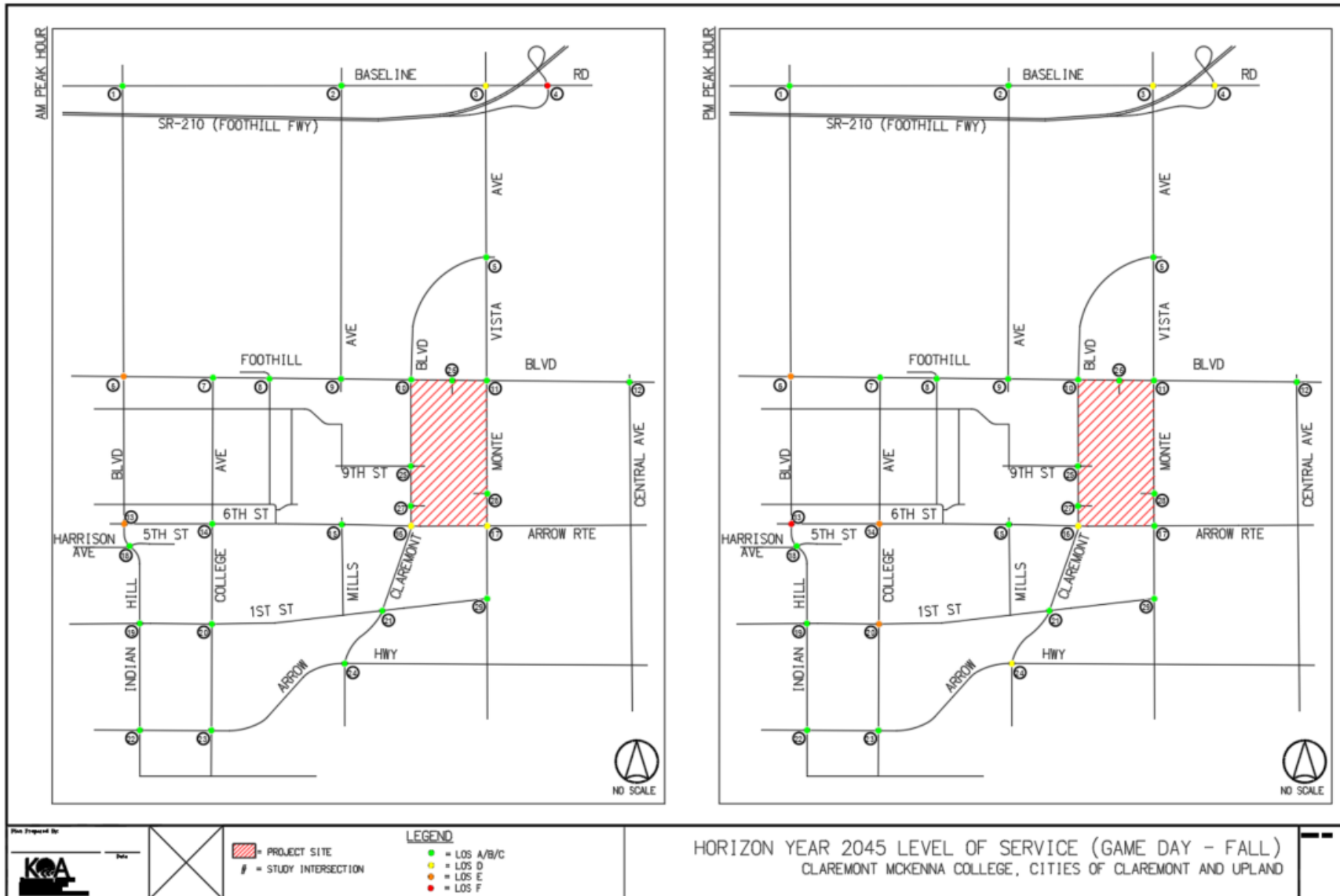
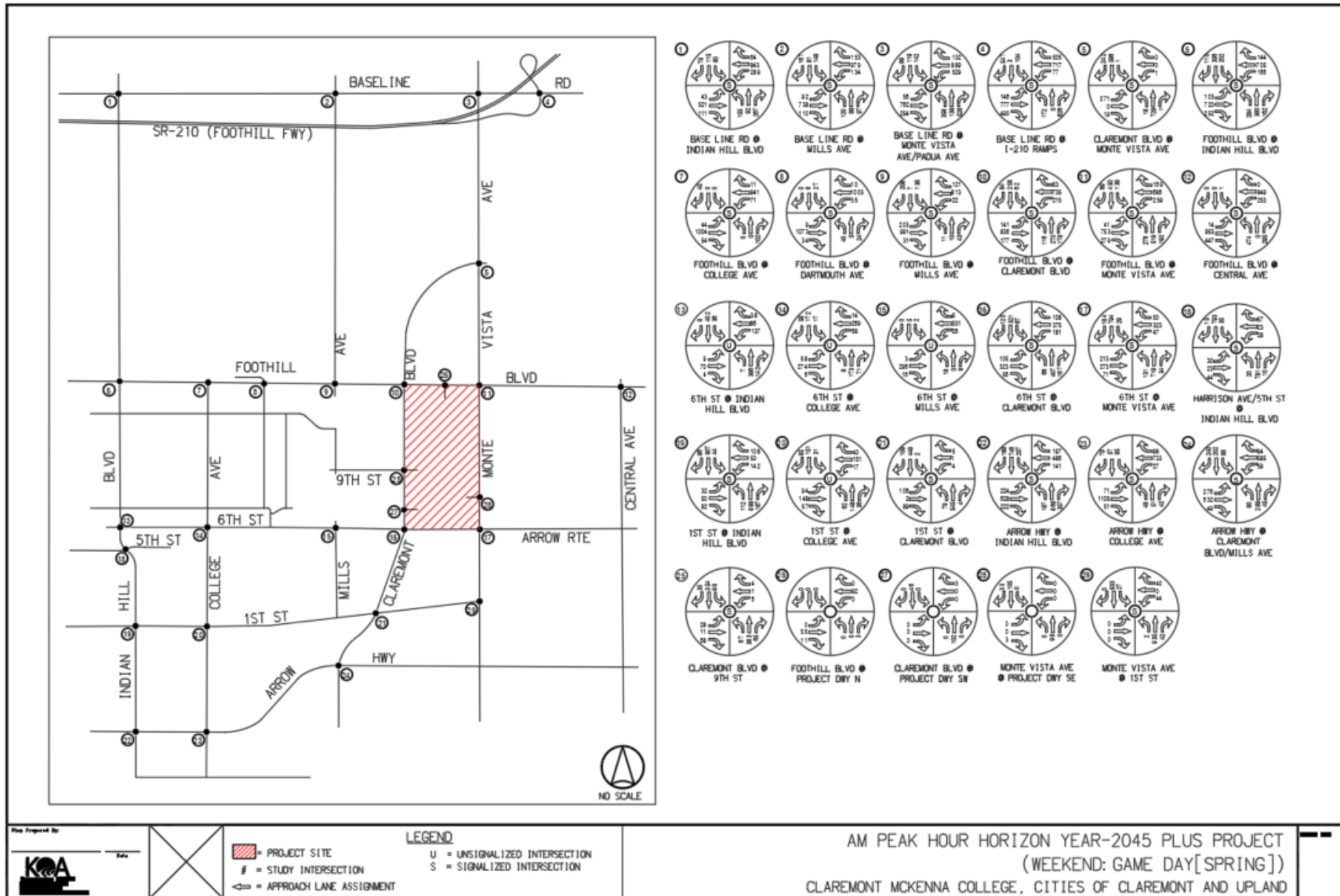


FIGURE 5.43 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: GAME DAY[SPRING] AM



AM PEAK HOUR HORIZON YEAR-2045 PLUS PROJECT
 (WEEKEND: GAME DAY[SPRING])
 CLAREMONT MCKENNA COLLEGE, CITIES OF CLAREMONT AND UPLAND

FIGURE 5.44 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: GAME DAY[SPRING] PM

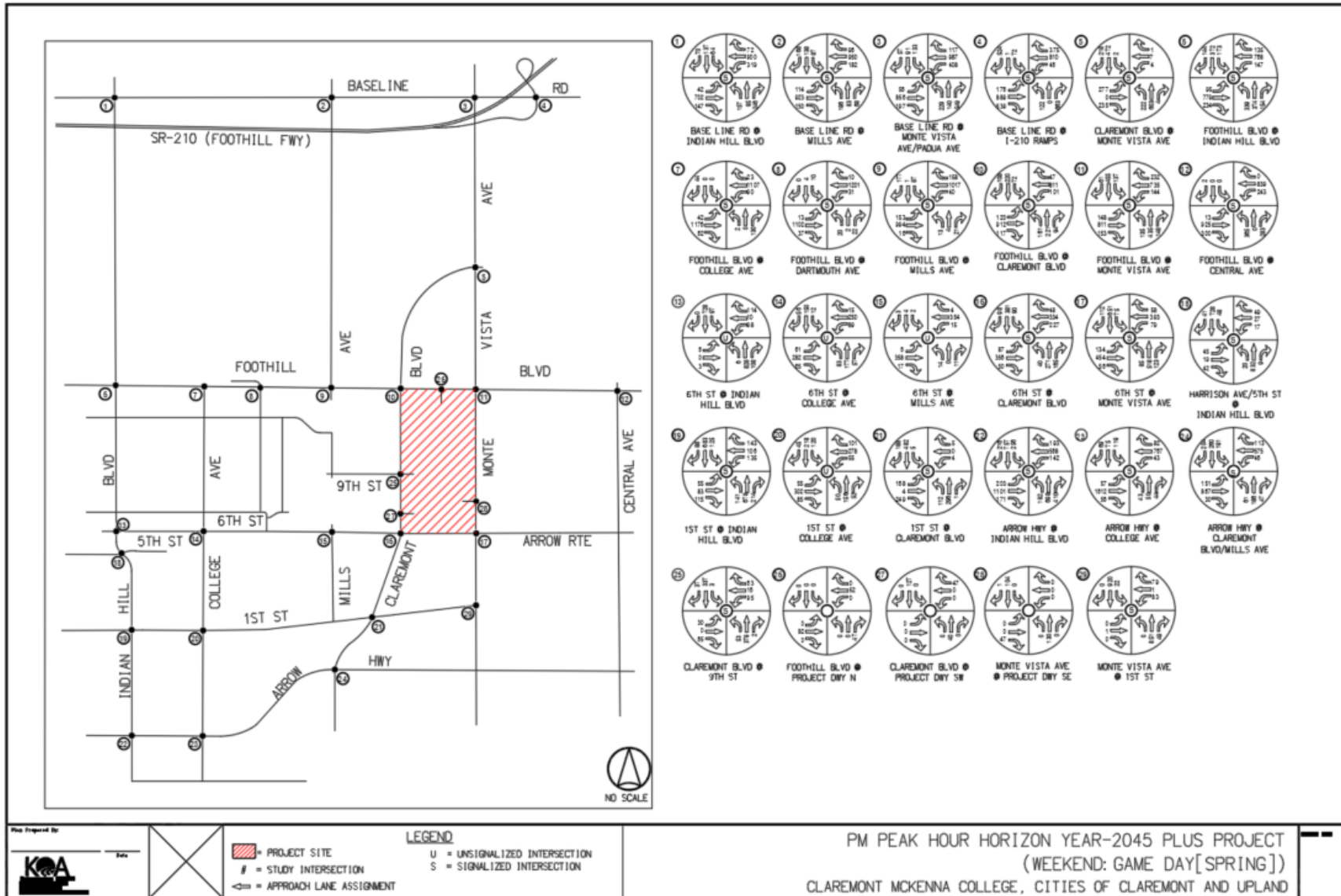
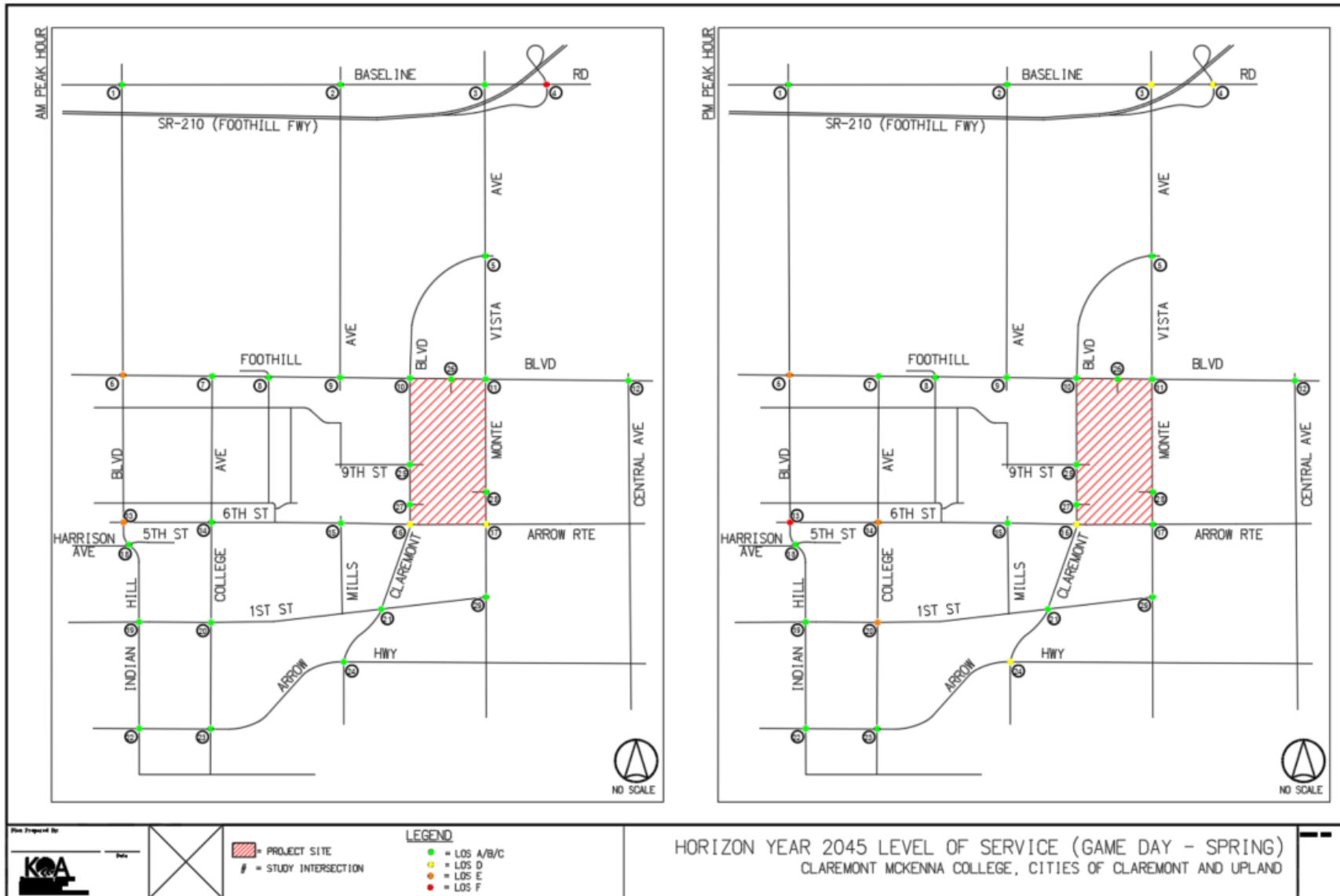


FIGURE 5.45 HORIZON YEAR 2045 WITH PROJECT WEEKDAY: GAME DAY[SPRING] LOS



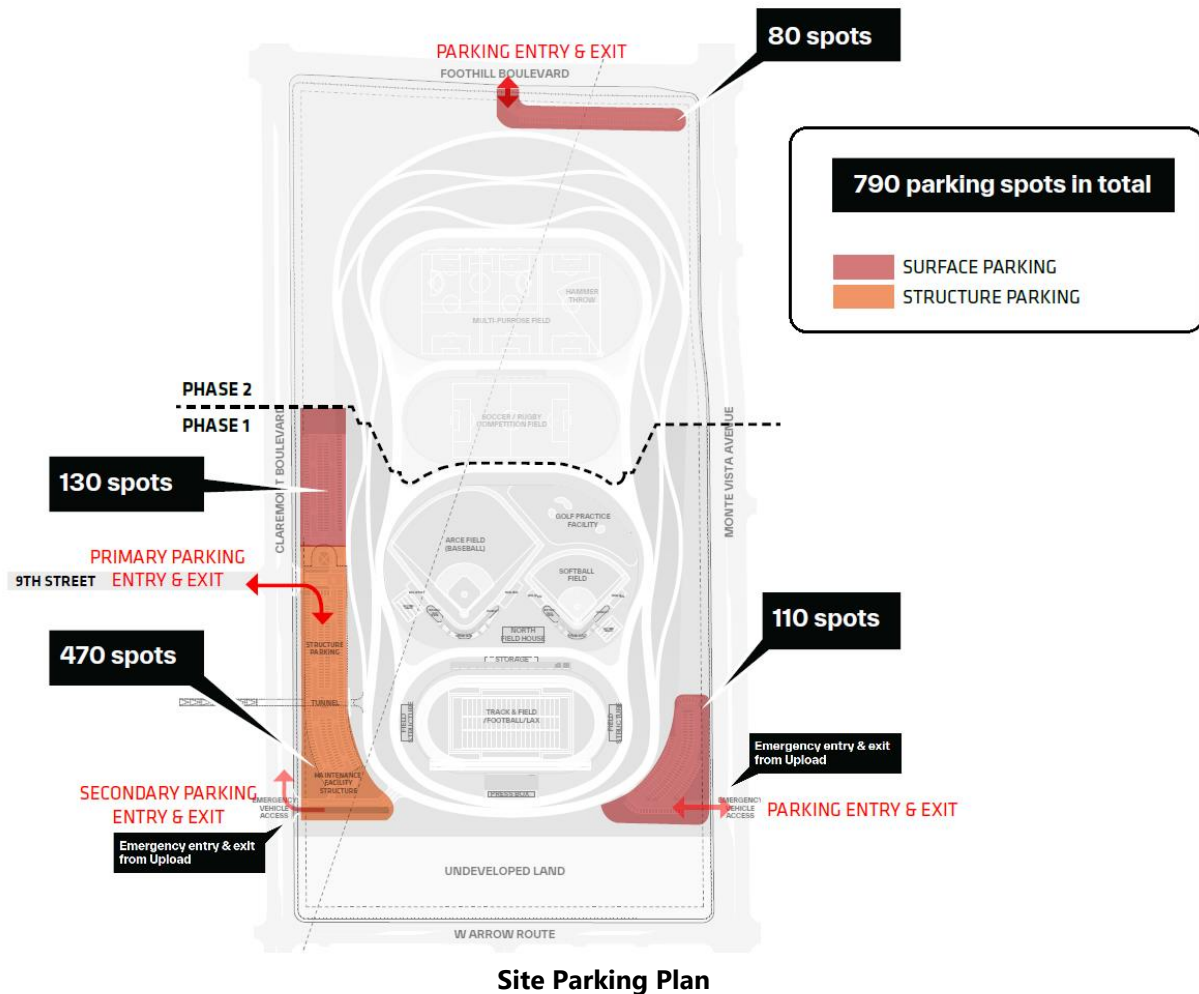
6.0 PARKING, ACCESS, AND CIRCULATION

6.1 PARKING PROVISIONS

The Project proposes various on-site parking facilities that will serve existing CMC campus uses including organized athletics activities occurring on the following eight sports fields to be located on the Project site:

- 1 Baseball Field
- 1 Softball Field
- 1 Soccer/Rugby Field
- 3 Multi-Purpose Fields
- 1 Track & Field / Football Field
- 1 Golf Practice Facility

The Project will include a total of 790 on-site parking spaces, as indicated in the Parking Plan exhibit below. A portion of the Project parking will replace an existing faculty and staff parking lot on the CMC campus west of Claremont Boulevard. Approximately 600 of these spaces will be situated in surface and structured parking along the westerly side of the site on Claremont Boulevard, spanning to the south of the Ninth Street entrance. The proposed parking structure will contain approximately 470 of the 600 parking spaces on the west side of the site. The remaining 130 westerly spaces will be located in a surface-level parking lot located to the north of the Ninth Street entrance.



A total of 80 surface-level parking spaces are proposed to be situated along the northerly perimeter of the site, along Foothill Boulevard, near the intersection at Monte Vista Avenue. 110 additional surface-level parking spaces are proposed at the southeast corner of the site along Monte Vista Avenue, just north of Arrow Route.

6.2 DRIVEWAY ACCESS

The primary access point for the Project Site is located at the intersection of Claremont Boulevard and 9th Street, currently a three-way unsignalized "T" intersection. A new four-way traffic signal is proposed at this intersection, including direct entry/exit access into the proposed parking structure. An additional Project driveway along Claremont Boulevard is proposed approximately 800 feet south of 9th Street. This southwesterly driveway will be designated for outbound traffic (i.e., right-turn exit only) departing from the site, and will remain as unsignalized. Inbound traffic movements into the southwesterly driveway may be permitted by emergency vehicles only.

A second unsignalized access driveway is proposed at midblock along the northerly perimeter of the site, along Foothill Boulevard, where entry and exit maneuvers are restricted to right turning movements only (i.e., no median curb cuts are proposed). At the southeast corner of the site along Monte Vista Avenue, approximately 375 feet north of Arrow Route, a third unsignalized driveway will be provided and similarly accommodate right-in/right-out maneuvers only.

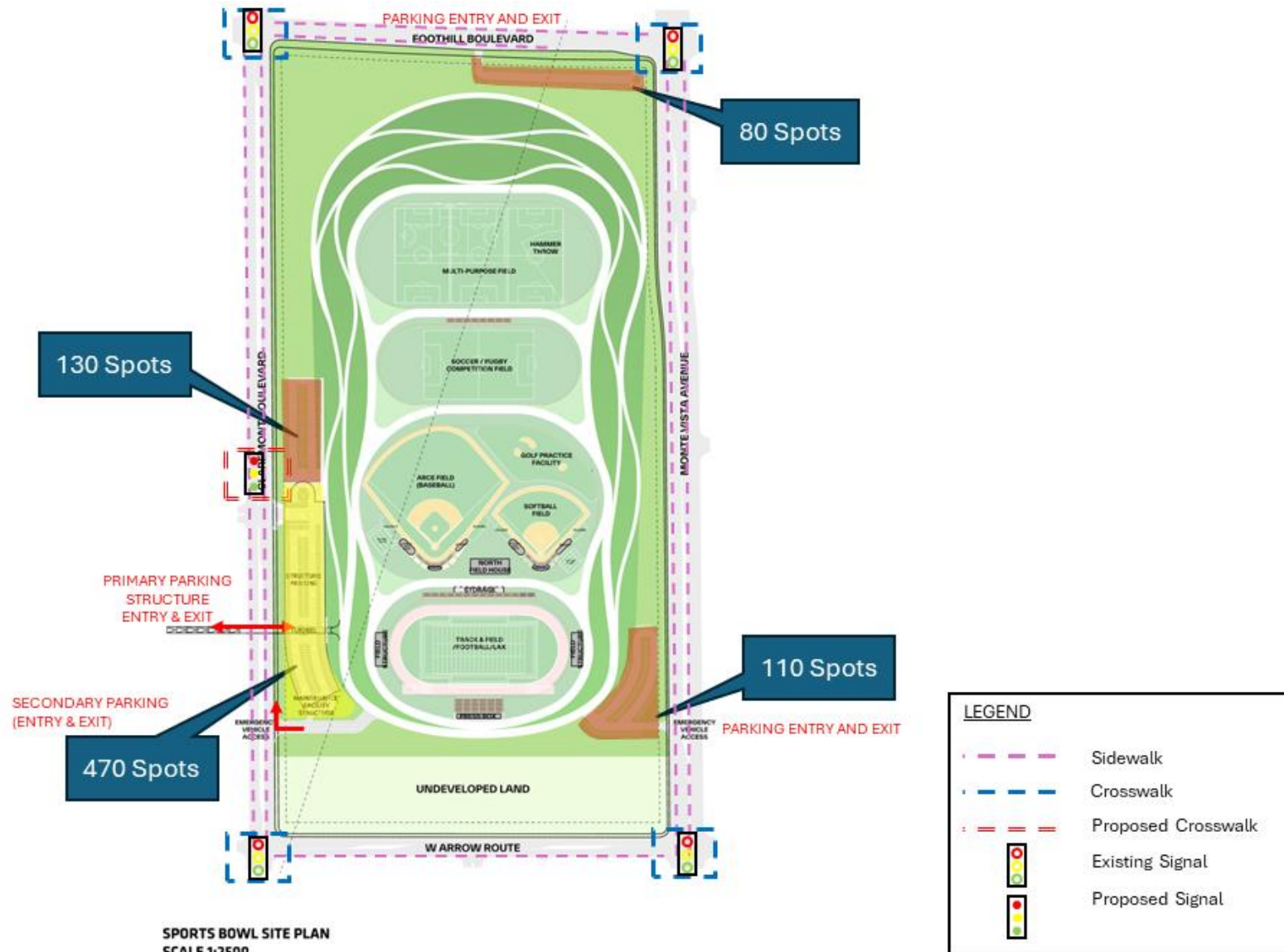
6.3 INTERNAL ACCESS AND CIRCULATION

Figure 6.1 presents the circulation diagram for the proposed Project, and illustrates vehicular access as well as pedestrian access to the site from the public streets bordering the proposed Project. A review of the proposed site access and circulation patterns confirms that pedestrian connectivity along Claremont Boulevard between the Project site and the CMC/Pitzer Colleges to the west will be provided at the intersections of Claremont Boulevard and Foothill Boulevard, Ninth Street and Sixth Street/Arrow Route. These intersections are currently (and/or will be) signalized with traffic signal-controlled crosswalks.

The signalization of the Claremont Boulevard and Ninth Street intersection, proposed in conjunction with the development of the Project (and required by prior CMC Master Plan approvals), will provide pedestrians with a street-level means of accessing the facilities and venues of the proposed sports complex. In addition, a pedestrian tunnel, crossing under Claremont Boulevard, is proposed to provide visitor access between the adjacent CMC campus (just south of the new Science Building near Ninth Street) and the internal walkway west of the Football/Track field. It is expected that this pedestrian tunnel will offer pedestrians on campus with primary access to the Project site, and will reduce the pedestrian crossing demand at the signalized crossing at Ninth Street.

Transit service to the Project site is provided by Foothill Transit, with existing bus stops located on Claremont Boulevard at Foothill Boulevard, Ninth Street, and Sixth Street. It is noted from Figure 6.1 that the site will not take any direct northbound access across Monte Vista Avenue. All site traffic along Monte Vista Avenue will occur in the southbound direction only, at the southeasterly driveway, and no inbound/outbound movements crossing the median are proposed. Similarly, along Foothill Boulevard, the site will not generate any median crossing maneuvers on Foothill Boulevard. All inbound and outbound site traffic along Foothill Boulevard will occur in the eastbound direction only, at the northerly driveway.

FIGURE 6.1 CIRCULATION DIAGRAM



SPORTS BOWL SITE PLAN
SCALE 1:2500

7.0 ACTIVE TRANSPORTATION AND TRANSIT

This section addresses the potential impacts to public transit, pedestrian facilities and travel, and bicycle facilities and travel associated with the development of Project site. Claremont McKenna College is a private university in Claremont, California, with an enrollment of approximately 1,300 students. It is a part of the Claremont Colleges consortium, a group of seven colleges and graduate schools located on adjacent campuses within walking distance. The area is served by Foothill Boulevard, California State Route 210, Interstate 10, E. Arrow Highway, and two nearby Metrolink stations. Approximately 94 percent of Claremont McKenna College students live on campus.

The Project site is approximately 74.44 acres of land that is generally located south of Foothill Boulevard and east of Claremont Boulevard in the Cities of Claremont and Upland, California. Elements of the plan are collegiate sports venues (including football/track/lacrosse, baseball, softball, soccer) with spectator seating), golf practice and multi-purpose fields, related support facilities, and parking. These elements are generally upgraded and replacement facilities for existing sports venues and parking that have or will be removed on the Claremont McKenna College (CMC) campus, and also add some additional parking for the campus. The Project site vicinity and location map are shown in Figure 1.1.

The City of Claremont-City of Upland boundary extends diagonally through the proposed Project site from approximately 220 feet (measured along Foothill Boulevard) west of Monte Vista Avenue. This boundary also forms the Los Angeles County-San Bernardino County line, with Los Angeles County and the City of Claremont (29.14 acres) lying to the west, and San Bernardino County and the City of Upland (45.30 acres) lying to the east.

7.1 ACTIVE TRANSPORTATION AND PUBLIC TRANSIT

Following the passage of Senate Bill 743 (SB 743), the State of California's Governor's Office of Planning and Research (OPR) was tasked with developing new guidelines for evaluating transportation impacts under CEQA. These guidelines are intended to promote the reduction of greenhouse gas emissions and develop multimodal and diverse transportation networks by shifting the transportation performance metric from automobile delay and level of service (LOS) to vehicle miles traveled (VMT). As a result, OPR determined that under the proposed update to the CEQA guidelines, VMT would be established as the primary metric for evaluating environmental and transportation impacts.

In response to the updates to the CEQA guidelines, the City of Claremont and the City of Upland, respectively, updated the City of Claremont Transportation Study Guidelines in August 2020 and the City of Upland Traffic Impact Analysis Guidelines in July 2020 to conform to the requirements of SB 743. These guidelines shift the performance metric for evaluating transportation impacts under the CEQA from LOS to VMT for studies completed within the cities. The CEQA guidelines also require an evaluation of the Project's potential impacts on public transit, pedestrian facilities and travel, and bicycle facilities and travel using the following criteria:

- A significant impact occurs if the project conflicts with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Therefore, an evaluation of whether the Project is consistent with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities follows the guideline updates and is presented in the following sections. This analysis also considers any impact on the performance or safety of such facilities. Existing public transit is mentioned in Section 4.2 in this report.

7.1.1 Bicycle Facilities

According to the Los Angeles County Bikeways Map and San Bernardino County Active Transportation Plan (2020), there are limited bicycle facilities provided in both counties. Bike paths are provided along Thompson Creek and towards Mt. Baldy. Baseline Road and Foothill Boulevard provide various bike facilities east-west through Claremont and Upland. Bike lanes that travel north-south along Towne Avenue connect Baseline Road and Foothill Boulevard to a network of bike routes and bike lanes around the Claremont Colleges. North-south bicycle connection through Upland is provided by bike lanes along Euclid Avenue and a bike route along N. Campus Avenue. The Pacific Electric Inland Empire Trail is a 20-mile-long Class I bike path that starts along Claremont Boulevard in Upland and extends east to Rialto. Adjacent to the Project site, Class II (on-street marked) bike lanes are provided along Claremont Boulevard, Foothill Boulevard, and Monte Vista Avenue. The existing bicycle infrastructure serving the cities is depicted in **Figure 7.1**.

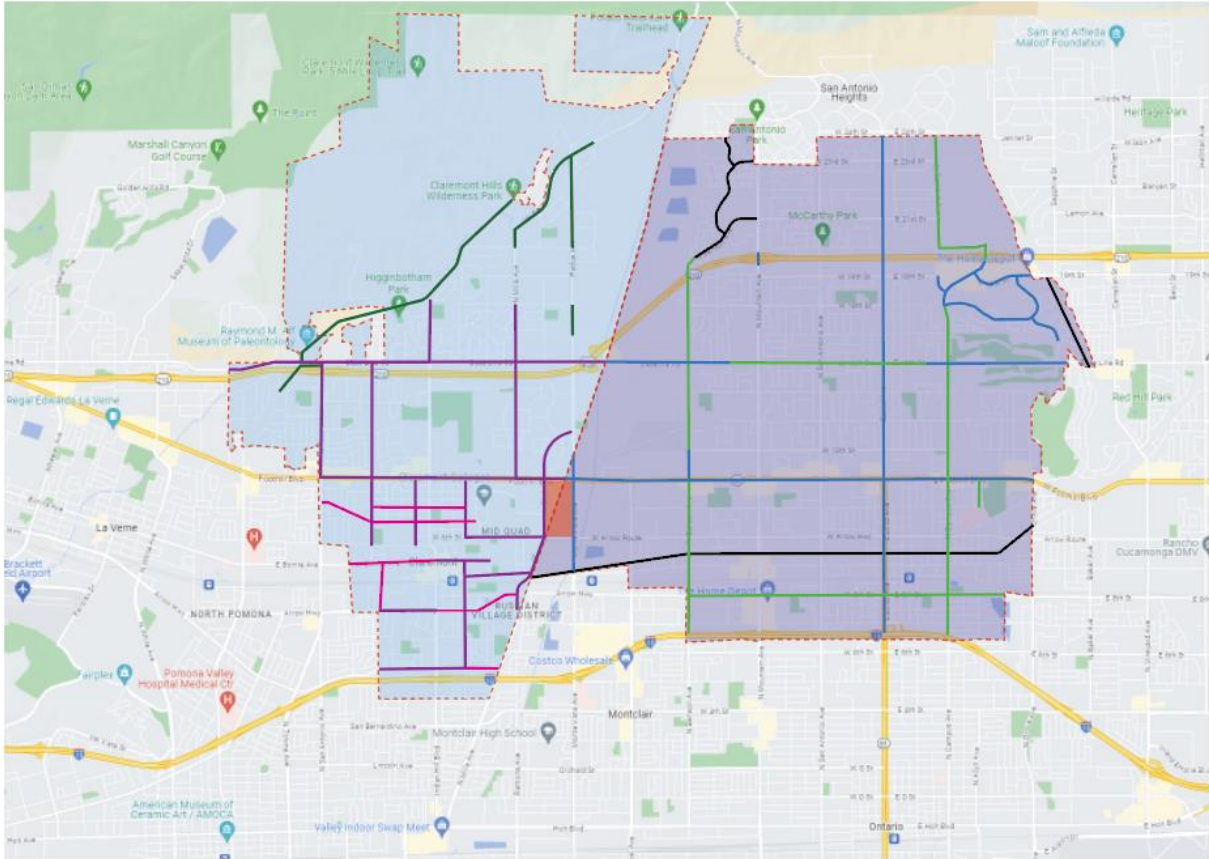
The City of Upland provides Metrolink Bicycle Locker Rentals at the Upland Metrolink Station. The City of Claremont in partnership with San Gabriel Valley Council of Governments (SGVCOG) and ActiveSGV offers an E-Bike Share Program for residents of the city.

7.1.2 Pedestrian Facilities

An inventory was conducted of the pedestrian infrastructure within an approximate one-half mile radius of the site. An overview of these study area facilities is geographically depicted in **Figure 7.2**. ADA-compliant curb ramps are provided at most intersections in the Project vicinity, with numerous ramps featuring tactile warning strips. Marked crosswalks are provided at major intersections along Foothill Boulevard, Claremont Boulevard, Monte Vista Avenue, E. 6th Street, and W. Arrow Highway. A majority of these crosswalks have continental markings to improve crosswalk visibility for motorists. Pedestrian pushbuttons are provided at most signalized marked crosswalks.

The Project is located central to the Claremont Colleges, several commercial areas, and four of the eleven City of Upland Specific Plans (College Park, College Commerce Center, Harvest at Upland, and The Enclave). These attractors are located within reasonable walking distance of the Project and implementation of the Project could increase connectivity between attractors.

FIGURE 7.1 EXISTING BICYCLE INFRASTRUCTURE



LEGEND










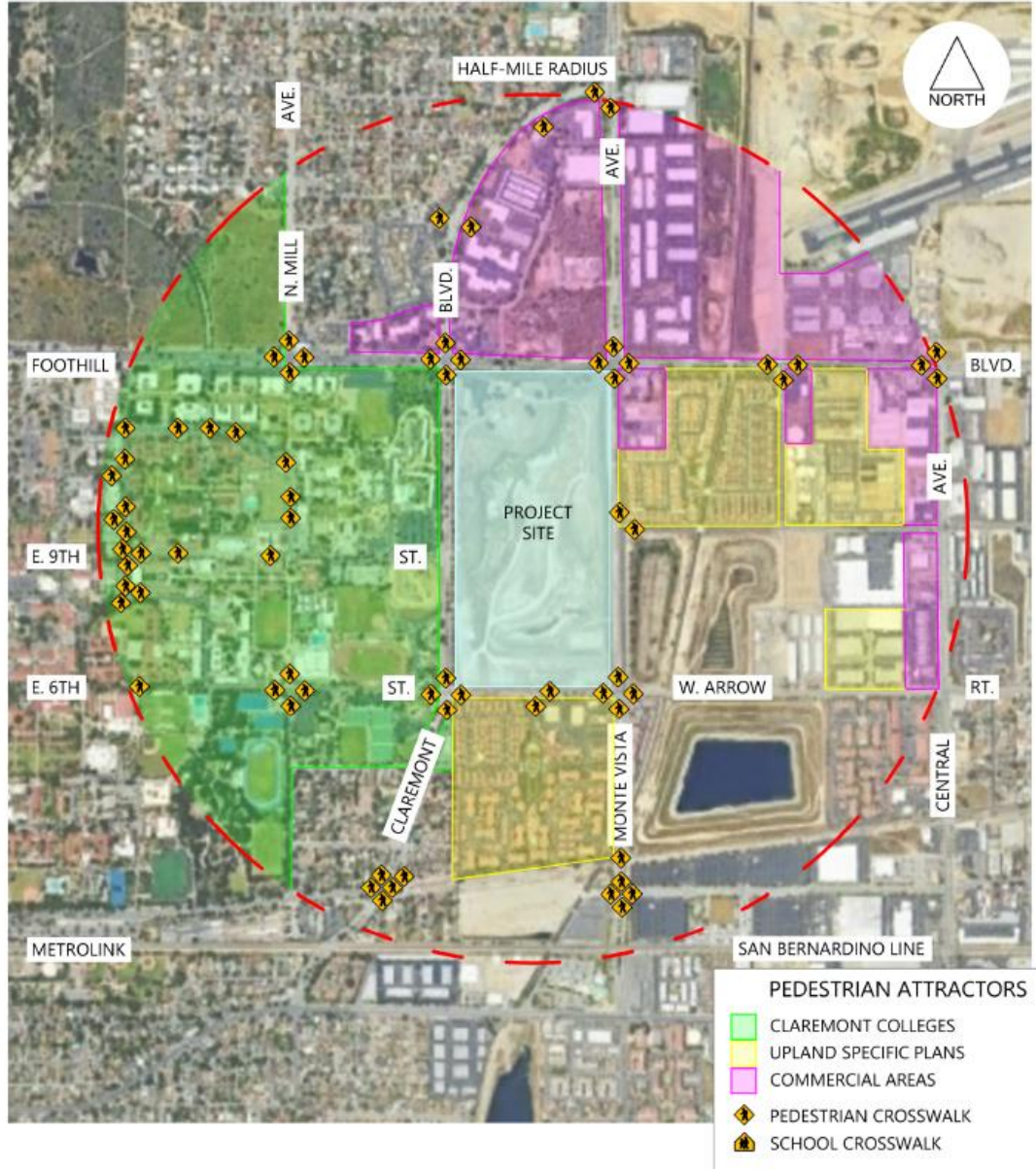
	Project Location		LA County Bikeways		San Bernardino County
	Claremont		Existing Bike Path		Active Transportation Plan (2020)
	Upland		Existing Bike Lane		Existing, Class I (Multi-Use Path)
			Existing Route		Existing, Class II (Lane)
					Existing, Class III (Route)

FIGURE 7.2 EXISTING PEDESTRIAN INFRASTRUCTURE



7.2 ADOPTED POLICIES, PLANS, AND PROGRAMS

Both the City of Claremont and the City of Upland have adopted policies, plans, and programs for their respective jurisdictions. The review of the applicable policies, plans, and programs included the Claremont General Plan, Upland General Plan, Claremont Municipal Code, Upland Municipal Code, and Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS). These are discussed in further detail below.

Based on the reviews below, the Project will support and not preclude the implementation of the counties and cities transportation-related goals and policies. Therefore, the Project will not have a significant impact regarding compliance with adopted policies, plans, and programs.

7.2.1 Claremont General Plan

The Project would embrace the objectives of the Claremont General Plan, which contains the Community Mobility Element.

The Community Mobility Element designates Claremont Boulevard, the roadway boarding the Project to the west, as a secondary arterial. This designation entails a 40- to 60-foot wide roadway or 28- to 36-foot half-widths of the roadway with a 10-foot median. The segment of Claremont Boulevard adjacent to the Project site presently has 46-foot half-widths and an approximately 13-foot median within the roadway exceeding the roadway's classified dimensions. The Project, therefore, is not required to make additional improvements to Claremont Boulevard through a dedication to meet these standards as the roadway meets the roadway's ultimate right-of-way. Claremont Boulevard has existing Class II bike lanes. The existing Development Agreement between CMC and the City of Claremont provides for improvements along the east side of Claremont Boulevard adjacent to the Project site, and at the intersection with Ninth Street, and these improvements will be constructed as part of the proposed Project.

The Community Mobility Element designates Foothill Boulevard, the roadway boarding the Project to the north, as a major arterial. This designation entails a 72- to 88-foot-wide roadway or 36- to 44-foot half-widths of the roadway with a 12-foot median. The segment of Foothill Boulevard adjacent to the Project site presently has an approximately 30-foot half-width, and an approximately 13-foot wide median within the roadway, exceeding the roadway's classified dimensions. Per the Community Mobility Element, Foothill Boulevard has implemented Class II bike lanes as proposed in 2007.

In summary, the Project is consistent with the Claremont General Plan for development of bicycle facilities and public right-of-way classification standards/dedications.

7.2.2 Upland General Plan

The Project would embrace the objectives of the Upland General Plan, which contains the Circulation Element and the Healthy Community Element.

The Circulation Element designates Monte Vista Avenue, the roadway boarding the Project to the east, as a secondary arterial. This designation entails traffic volumes ranging between 10,000 and 30,000 vehicles per day and a typical 35- to 85-foot curb to curb roadway width. The segment of Monte Vista Avenue adjacent to the Project site presently has 110-foot curb to curb roadway width exceeding the roadway's classified dimensions. The Project, therefore, is not required to make additional improvements to Monte Vista Avenue through a dedication to meet these standards as the roadway meets the roadway's ultimate right-of-way. Monte Vista Avenue has existing Class II bike lanes. Monte Vista Avenue, adjacent to the Project site, is classified as a Pedestrian Needs Priority Area identified by the City of Upland as an area not conducive to pedestrian use. The existing Development Agreement between CMC and the City of Upland provides for improvements along the west side of Monte Vista Avenue adjacent to the Project site and these improvements will be constructed as part of the proposed Project.

The Circulation Element designates W. Arrow Route, the roadway boarding the Project to the south, as a secondary arterial. This designation entails traffic volumes ranging between 10,000 and 30,000 vehicles per day and a typical 35- to 85-foot curb to curb roadway width. The segment of W. Arrow Route adjacent to the Project site presently has 64-foot curb to curb roadway width meeting the roadway's classified dimensions. The Project, therefore, is not required to make additional improvements to W. Arrow Route through a dedication to meet these standards as the roadway meets the roadway's ultimate right-of-way.

W. Arrow Route, adjacent to the Project site, is classified as a Pedestrian Needs Priority Area identified by the City of Upland as an area not conducive to pedestrian use. The existing Development Agreement between CMC and the City of Upland provides for improvements along the north side of Arrow Route adjacent to the Project site, and these improvements will be constructed as part of the proposed Project.

The Healthy Community Element is meant to prioritize health in the City of Upland's plans for future growth and development. The Plan is guided by principles of holistic health, the link between community design and health, and active transportation, among other principles. Goal HC-1, promotes incorporating and prioritizing health and wellness principles in City planning decisions affecting transportation. Policies relating to this goal involve the creation of multi-modal corridors and accessible services as features of a safe and healthy city. Goal HC-2, promotes an active living environment that offers ample parks, community facilities, recreation activities, multiuse pedestrian and bicycle trails, and development types that encourage a healthy and active lifestyle. The development of the Project will not preclude the Plan's goals of promoting active transportation and a healthy city. As a collegiate athletic development, that will substantially improve the streetscape and general aesthetics of the existing site, the Project will be conducive to promoting active living and travel for residents, employees, and guests alike.

In summary, the Project is consistent with the Upland General Plan for the development of pedestrian facilities, bicycle facilities, and public right-of-way classification standards/dedications.

7.2.3 Claremont Municipal Code

Vehicle parking rates for the athletic facility land use are not specified in the Claremont Municipal Code. However, the parking requirements for Claremont McKenna College are addressed in the college's Master Plan and the college as a whole will comply with applicable requirements.

The current TDM requirements in Claremont Municipal Code § 16.136.080 outlines TDM measures that a development must implement and comply with which includes displaying mobility information, designating parking for carpool/vanpools, and providing bicycle parking. The Project, as part of the Claremont McKenna College campus, will be in compliance with the Code. This may include designating a portion of the parking supply for employees, providing bicycle parking spaces, and/or incorporating other trip-reducing measures.

The Project driveways will fulfill the specifications and requirements in compliance with § 12.16.060. The Project driveways will also provide sufficient site distance in order to identify conflicting vehicles, bicycles, and pedestrians.

In reviewing the abovementioned Claremont Municipal Code requirements, the Project does not conflict with the applicable parking or TDM policies.

7.2.4 Upland Municipal Code

The Upland Municipal Code § 17.11.030 requires the provision on-site vehicle parking spaces at a rate of 5 to 8 spaces per acre depending on spectator seating accommodations for athletic field land uses. The Project would meet the on-site vehicle parking requirements by providing 790 vehicle parking spaces in the various parking facilities. Upland Municipal Code § 17.11.030 requires the provision of short-term bicycle parking spaces at 10 percent of the number of required automobile parking spaces and long-term bicycle parking spaces at a rate of at least one space per 20 vehicle spaces. The Project will, therefore, provide convenient and adequate bicycle parking facilities.

In reviewing the abovementioned requirements, the Project does not conflict with the bicycle or vehicle policies.

7.2.5 SCAG RTP/SCS

The SCAG RTP/SCS balances future mobility and housing needs with economic, environmental, and public health goals in a long-term plan that are laid out for the period from 2020-2045. The Project is consistent with the SCAG RTP/SCS because the Project would not result in a significant VMT impact as detailed further in the VMT Analysis in Section 9 of this Traffic Impact Analysis.

7.3 CEQA MITIGATION MEASURES AND RECOMMENDED ACTIONS

As indicated in the preceding analyses, the Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities of the respective jurisdictions. Thus, no CEQA transportation-related mitigation measures for this element are required for the Project.

8.0 NON-CEQA PROJECT IMPACTS

8.1 OPENING YEAR 2027 IMPACTS

Table 8.1 provides a summary of Level of Service (LOS) at the study intersection(s) for the Opening Year 2027 With Project scenario, indicating where a projected intersection LOS is not compliant with either the City of Upland’s TIA guidelines or the City of Claremont Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment.

Under the Opening Year Plus Project (Practice and Game Day) traffic conditions, one (1) of the key study intersections is forecast to operate at unacceptable levels of service based on the LOS impact criteria mentioned in this report. The remaining key study intersections are forecast to operate at an acceptable level of service during the AM and PM peak hours for the Opening Plus Project traffic conditions. The location forecast to operate at an adverse LOS is as follows:

TABLE 8.1 UNACCEPTABLE LEVEL OF SERVICE (LOS) – OY 2027 WITH PROJECT

Key Intersection Jurisdiction	Jurisdiction	Practice Day		Game Day	
		AM Peak Hour		AM Peak Hour	
		LOS	Delay	LOS	Delay
Base Line Rd & I-210 Ramps	Claremont/Caltrans	F	151.2	F	151.2

This intersection would have an unacceptable LOS when measured against the LOS criteria identified in this report. The implementation of recommended (non-CEQA) offsite improvements outlined in this report would alleviate the adverse LOS condition associated with Opening Year Plus Project (Practice and Game Day) traffic conditions, and restore the affected intersections to acceptable projected conditions.

Under the Opening Year Plus Project (Game Day [Fall] and [Spring]) traffic conditions, all other key study intersections will operate at acceptable levels of service during the AM and PM peak hours.

Appendix C contains the Level of Service (LOS) Worksheets for the Opening Year (2027) without project conditions.

8.2 HORIZON YEAR 2045 IMPACTS

Table 8.2 provides a summary of Level of Service (LOS) at the study intersection(s) for the Horizon Year 2045 With Project scenario, indicating where a projected intersection LOS is not compliant with either the City of Upland’s TIA guidelines or the City of Claremont Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment.

Under the Horizon Year Plus Project (Practice Day, Game Day, Game Day [Fall], and Game Day [Spring]) traffic conditions, four (4) of the key study intersections are forecast to operate at unacceptable levels of service based on the LOS impact criteria identified in this report. The remaining key study intersections are forecast to operate at an acceptable level of service during the AM and PM peak hours for the Horizon Plus Project traffic conditions. The locations forecast to operate at an adverse LOS is as follows:

TABLE 8.2 UNACCEPTABLE LEVEL OF SERVICE (LOS) – HY 2027 WITH PROJECT

Key Intersection Jurisdiction	Practice Day				Game Day				Game Day (Fall)				Game Day (Spring)			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
6. Base Line Rd & I-210 Ramps	-	-	-	-	-	-	-	-	F	86.7	-	-	F	85.7	-	-
13. 6th St & Indian Hill Blvd	E	54.9	F	77.1	E	54.9	E	85.3	E	74.5	F	148.3	E	73.1	F	127.8
14. 6th St & College Ave	-	-	E	42.5	-	-	E	44.1	-	-	E	45.2	-	-	E	42.3
20. 1st St & College Ave	-	-	F	80.5	-	-	F	81.3	-	-	E	45.4	-	-	E	44.3

These intersections listed in Table 8.2 would have an unacceptable LOS when measured against the LOS criteria identified in this report. The implementation of recommended (non-CEQA) offsite improvements outlined in this report would alleviate the adverse LOS condition associated with the Horizon Year Plus Project (Practice Day, Game Day, Game Day [Fall], and Game Day [Spring]) traffic conditions, and restore the affected intersections to acceptable projected conditions.

Under the Horizon Year Plus Project (Practice and Game Day [Fall] & [Spring]) traffic conditions, all other key study intersections will operate at acceptable levels of service during the AM and PM peak hours.

Appendix E contains the Level of Service (LOS) Worksheets for Horizon Year (2045) without project conditions.

PART 3 – CEQA TRANSPORTATION ASSESSMENT

9.0 VMT ANALYSIS

The City of Claremont and the City of Upland have both developed VMT analysis guidelines which allow certain projects to screen out of VMT analysis based on certain characteristics of a project's location and uses. The City of Claremont published *Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment* in August 2020, while the City of Upland published the *Traffic Impact Analysis Guidelines* in July 2020.

Both the City of Claremont and the City of Upland provide the same three screening criteria, listed below, to determine if a VMT analysis will be required for a development project:

1. Transit Priority Area (TPA) Screening
2. Low VMT Area Screening
3. Project Type Screening

These screening criteria were applied to the proposed Project uses to determine if further analysis would be required to evaluate the Project's VMT impact.

The San Gabriel Valley Council of Governments (SGVCOG) and San Bernardino County Transportation Authority (SBCTA) have developed online mapping tools which can be used to determine whether projects can be screened from further VMT analysis. These tools (the SGVCOG VMT Evaluation Tool and the SBCTA VMT Screening Tool) were used to determine whether the Project can be presumed to result in a less-than-significant VMT impact based on its location. The screening results from the SGVCOG VMT Evaluation Tool and the SBCTA VMT Screening Tool are presented in **Appendix H** and **I**, respectively.

Transit Priority Screening

Per both the City of Claremont's and the City of Upland's Guidelines, projects located within a TPA may be presumed to have a less-than-significant VMT impact based on their access to transit options. A TPA is defined as within one-half mile of an existing major transit stop or an existing stop along a high-quality transit corridor which are defined by the California Public Resources Code:

- § Pub. Resources Code, § 21064.3: A "major transit stop" means a site containing any of the following: (a) an existing rail or bus rapid transit station, (b) a ferry terminal served by either a bus or rail transit service, (C) the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.
- § Pub. Resources Code, § 21155: For the purposes of this section, a high-quality transit corridor means a corridor with fixed-route bus service with service intervals of no longer than 15 minutes during peak hours.

Based on the SGVCOG VMT Evaluation Tool, the Project parcels located in the City of Claremont are not located within ½-mile of a major transit stop or a stop along high-quality transit corridor and therefore, do not qualify for screening per the TPA criteria.

However, per the SBCTA VMT Screening Tool, the southeastern portion of the site in the City of Upland is located within ½-mile of the Montclair Transit Station, which provides commuter rail and bus service from

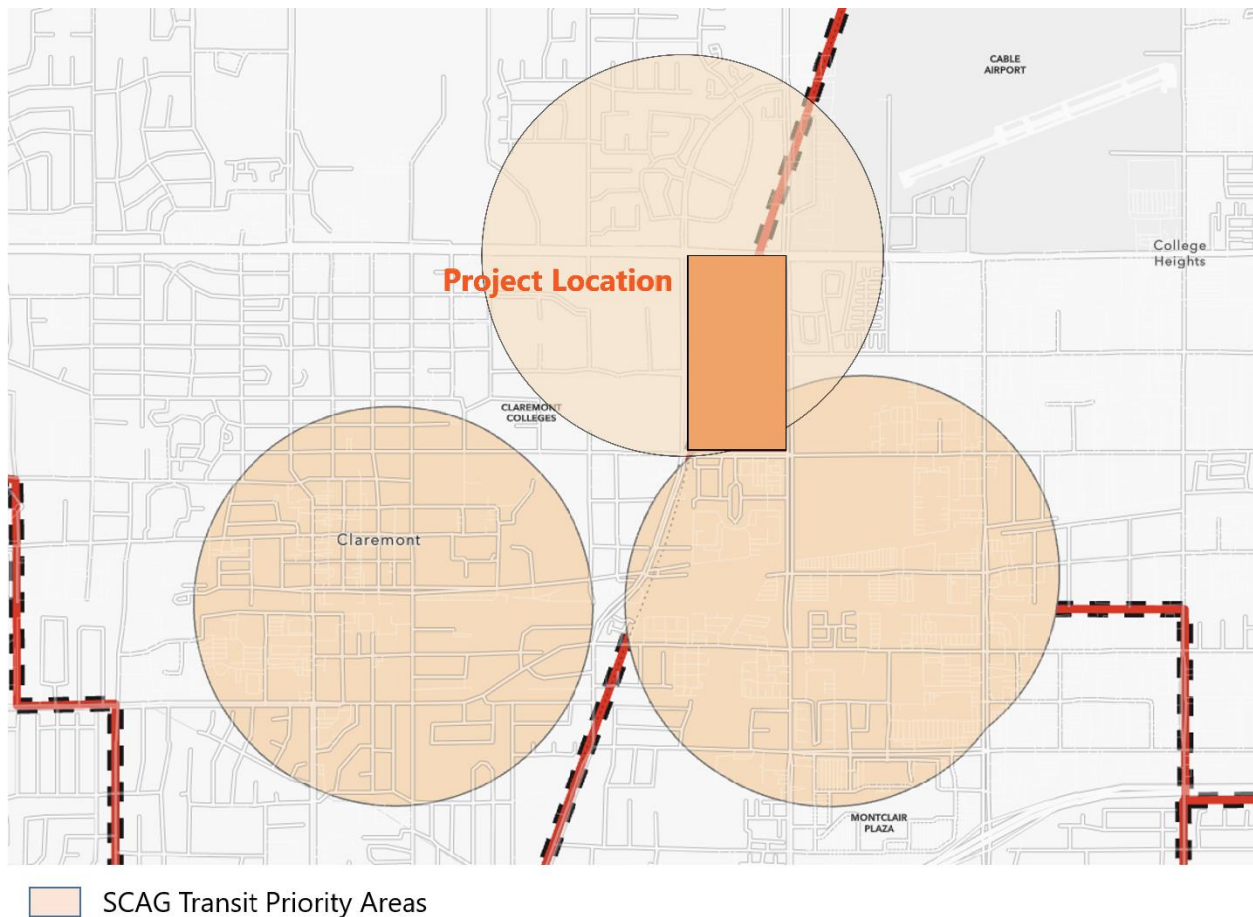
multiple transit agencies. The Foothill Transit Silver Streak bus line operates with weekday peak-hour headways of 15 minutes with a stop provided at the transit center. This route provides connections to Pomona, El Monte, and Downtown Los Angeles. The transit center is also served by the Metrolink San Bernardino Line, connecting Redlands to Los Angeles. A map depicting the SCAG Transit Priority Areas is shown in **Figure 9.1**.

Both the City of Claremont's and the City of Upland's Guidelines state that the TPA screening criteria is not applicable for projects that meet any of the following criteria:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the City;
- Is inconsistent with the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

As the Project consists of athletic facilities with few buildings proposed on the Project site, it has an FAR of less than 0.75 and thus the TPA screening criteria is not applicable. Thus, despite the Project's location near high-quality transit options, the Project was conservatively assumed to not be screened from further VMT analysis based on the TPA screening criterion.

FIGURE 9.1 SCAG TRANSIT PRIORITY AREAS



Low VMT Area Screening

The second screening criterion presented in both the City of Claremont's and the City of Upland's Guidelines allows residential and office projects located in low-VMT generating areas to be presumed to have a less-than-significant VMT impact if the proposed uses are expected to generate VMT at a similar rate to the existing uses in the area. Since the proposed Project land uses are not residential or office in nature, this screening criterion does not apply.

To be comprehensive, the SGVCOG VMT Evaluation Tool and the SBCTA VMT Screening Tool were used to determine whether the Project is located in a low-VMT area. As shown in **Attachment H**, per the SGVCOG VMT Evaluation Tool, the Project parcels within the City of Claremont have existing uses that generate VMT above the City's threshold of 15% below the SGVCOG Northeast subarea average. Additionally, per **Attachment I**, the SBCTA VMT Screening Tool outputs show that the Project parcels located in the City of Upland have existing uses that generate VMT at a rate above the threshold of the citywide average. Therefore, per both the City of Claremont's and the City of Upland's low VMT area screening criteria, the Project is not located in a low-VMT area and cannot be screened from further VMT analysis based on this criterion.

Project Type Screening

Finally, the City of Claremont's and the City of Upland's Guidelines provide lists of project types that can be considered local serving, and therefore can be presumed to reduce VMT. The land use types below are those identified in each jurisdiction's guidelines as being local serving in nature:

City of Claremont

- Local-serving K-12 schools
- Local parks
- Day care centers
- Local-serving retail uses less than 50,000 square feet (e.g., gas stations, banks, restaurants, shopping centers, etc.)
- Local-serving hotels (e.g., non-destination hotels)
- Local-serving assembly uses (e.g., places of worship, community organizations)
- Community institutions (e.g., public libraries, fire stations, local government)
- Affordable, supportive, or transitional housing
- Assisted living facilities
- Senior housing (as defined by HUD)
- Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS
- Student housing projects on or adjacent to a college campus
- Other local serving uses as approved by the City Traffic Engineer
- Projects generating less than 110 daily vehicle trips

City of Upland

- Local parks
- Day care centers
- Local-serving retail uses less than 50,000 square feet (e.g., gas stations, banks, restaurants, shopping centers, etc.)
- Student housing projects on or adjacent to college campuses
- Local-serving assembly uses (e.g., places of worship, community organizations)
- Community institutions (e.g., public libraries, fire stations, local government)
- Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS
- Hotels (non-destination or resort; no banquet or special event space)
- Affordable or supportive housing
- Assisted living facilities
- Senior housing (as defined by HUD)
- Projects generating less than 250 daily vehicle trips

As shown above, both the City of Claremont and the City of Upland established trip-based screening criteria to determine when a project can be considered small enough to not result in a significant VMT impact. As shown, the City of Claremont established this threshold at 110 daily trips while the City of Upland established this threshold at 250 daily trips. Per the Project trip generation table in **Table 5.3**, the Project is expected to exceed these thresholds, therefore the Project was assumed to not meet the trip-based screening criteria for determining when further VMT analysis is required.

However, while the City of Claremont's and the City of Upland's Guidelines do not list the Project's proposed collegiate athletic facilities land use as one of the project types that can screen from further VMT analysis, similar recreational and/or collegiate uses are included in the list of local-serving project types (e.g., local parks, local-serving community colleges, local-serving assembly uses, and student housing). Like these uses, the Project's proposed facilities would cater primarily to the students and faculty of the adjacent colleges and provide them with proximate facilities for athletic practices and games which would not require the use of an automobile to access.

Since the proposed athletic facilities will be utilized by students/staff at the college, a high proportion of trips to and from the site will not occur by private automobile. As shown in the trip generation notes in Attachment C, approximately 50% of all trips are expected to be walk-in trips. This accounts for both the student athletes and faculty walking to the Project site for games and practice, as well as spectators walking from the college on game days.

As the proposed athletic facilities will service the CMC population, the Project's proposed land use is expected to be local serving and can be considered to meet the project type VMT screening criteria for both the City of Claremont and the City of Upland. Thus, the Project can be presumed to result in a less-than-significant VMT impact.

VMT Screening Analysis Conclusion

Given that the Project will primarily serve the student and faculty population of the adjacent CMC campus, the proposed Project uses can be considered to be local-serving and will reduce VMT within the surrounding community. Thus, based on the proposed project type, the Project meets the City of Claremont's and the City of Upland's VMT screening requirements and is not required to prepare additional VMT analysis. It should also be noted that most of the proposed Project athletic facilities will replace existing facilities at other locations on the CMC campus and the trips generated by the proposed Project facilities will primarily shift from these existing facilities. Nonetheless, to provide a comprehensive VMT analysis for the Project, a quantitative VMT analysis has been prepared for the proposed Project uses to demonstrate that the Project will generate VMT below the region average.

9.1 VEHICLE MILES TRAVELED ANALYSIS METHODOLOGY AND THRESHOLD

Both the City of Claremont and the City of Upland have developed VMT analysis guidelines for their respective jurisdictions. The City of Claremont published the *Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment* in August 2020, while the City of Upland published the *Traffic Impact Analysis Guidelines* in July 2020. Both sets of guidelines recommend the use of the local travel demand model (the Southern California Association of Governments [SCAG] Travel Model or the San Bernardino Transportation Analysis Model [SBTAM]) for analyzing VMT impacts. However, the athletic facilities proposed by the Project cannot be easily input into the model socioeconomic data assumptions. Thus, an alternative methodology was developed to estimate the VMT generated by the proposed Project land uses.

This VMT Analysis assumes an Opening Year of 2027. However, some uses on the site will activate prior to 2027. This analysis takes a conservative approach by analyzing 2027 in order to evaluate the impacts of a fully operational site; it can be assumed that, if the fully operational site is below VMT thresholds, and trip generation closely correlates with service population (as it does in this case), then a partially operational site will be below VMT thresholds as well.

The total VMT generated by the proposed Project land uses was calculated based on the number and average length of vehicle trips arriving to and departing from the Project site. The number of daily vehicle trips was calculated using rates from the ITE *Trip Generation Manual* (11th Edition, 2021) and based on estimates of daily athletic team participants and spectators expected on the Project site. The trip generation rates and assumptions used to estimate the number of trips traveling to and from the Project site are presented in Table 5.3.

Average trip lengths for the Project site were calculated using local travel demand models. Since the Project site spans parcels in both the City of Claremont and the City of Upland, two travel demand models are applicable for the Project site: the SCAG Travel Model (Los Angeles County) and the SBTAM (San Bernardino County). Using the person trip matrices and the skim length matrices, weighted average trip lengths were calculated using data from each model for the Project site for the home-based college/university trip type. This trip type was selected as the most appropriate trip type for determining an average trip length for the site, as participants and spectators at the athletic facilities are expected to be drawn from a similar area as the students at the CMC campus.

To determine the average trip lengths for the Project, the VMT associated with the Project TAZ⁸ was calculated for the home-based college/university trip purpose and divided by the total daily home-based college/university trips. The Production-Attraction (PA) methodology was used to calculate the VMT as it allows for the calculation of the VMT associated with specific trip types. This methodology consists of converting the peak (PK) and off-peak (OP) PA matrices from person trips to vehicles trips using average vehicle occupancy rates. This process replicated the model process of converting PA matrices to origin-destination (OD) matrices; however it was conducted only for the home-based college/university trip type while keeping departure and return trips distinct. The PK and OP skim length matrices were then multiplied by the custom-calculated home-based college/university vehicle trip matrices to estimate VMT. The custom-calculated trip matrices and VMT matrices were then summed to combine PK and OP VMT estimates for departure and return trips to determine the daily home-based college/university trips and VMT for the Project TAZ. This process was repeated for the base and future model files for both the SCAG Travel Model and the SBTAM. **Table 9.1** presents a summary of the trip and VMT estimates calculated for the Project site from the two models.

TABLE 9.1 SCAG TRAVEL MODEL AND SBTAM DAILY VMT AND TRIP METRICS

Model Year	Daily VMT	Daily Trips	Average Trip Length (mi)
SCAG Travel Model			
Base Year (2016)	14,606	2,461	5.94
Future Year (2040)	17,323	2,299	7.53
SBTAM			
Base Year (2016)	26,840	3,038	8.83
Future Year (2040)	17,833	3,298	5.41

Using this data, average Project trip lengths for the anticipated opening year of 2027 were estimated by interpolating between the trip lengths calculated from the model base year (2016) and future year (2040)

⁸ It should be noted that for the SBTAM, no home-based college/university trips traveled to or from the Project parcel as it is currently does not contain any university-related land uses. Therefore, the TAZ associated with the CMC campus was used to represent the Project TAZ for the SBTAM as it is assumed that the CMC campus and the CMC Roberts Campus East athletic facilities would draw students and visitors from a similar catchment area.

data. This interpolation is performed by assuming a linear growth between 2016 and 2040 and calculating a value for 2027 along this slope. The results shown below in **Table 9.2** are the assumed trip lengths for the Project upon completion and were used to determine the total VMT associated with the Project uses.

TABLE 9.2 PROJECT OPENING YEAR AVERAGE TRIP LENGTH

Model	Average Trip Length (mi)
SCAG Travel Model	6.67
SBTAM	7.26

The average trip lengths calculated from the travel demand models were then multiplied by the total number of daily trips for the Project site shown in Table 5.3 to determine the total daily VMT associated with the site. The same trip length was applied to all trips. Daily VMT estimates were calculated for the four scenarios outlined in the trip generation table (Weekday Practice Day, Weekday Game Day, Weekend Game Day [Fall], and Weekend Game Day [Spring]). The total VMT for the site was then divided by the total number of daily users (service population) for the corresponding scenario to determine the daily VMT per service population metric for the Project. Assumptions for the daily number of athletic facility participants and spectators used to determine the service population for the Project are outlined in **Table 9.3**.

Because the Project site is located partially in both the City of Upland and the City of Claremont, with both cities in different counties, the Project's VMT metrics were compared against the VMT impact criteria for both jurisdictions.

Per the City of Claremont *Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment* a significant VMT impact is determined if a Project meets one of the following conditions:

- The baseline project generated VMT per service population exceeds 15% below the San Gabriel Valley Council of Governments (SGVCOG) Northeast Subarea baseline VMT per service population;
- The cumulative project generated VMT per service population exceeds 15% below the SGVCOG Northeast Subarea baseline VMT per service population;

Per the City of Upland *Traffic Impact Analysis Guidelines*, a significant VMT impact is determined if a Project meets one of the following conditions:

- The baseline project-generated VMT per service population exceeds the City of Upland General Plan Buildout VMT per service population;
- The cumulative project-generated VMT per service population exceeds the City of Upland General Plan Buildout VMT per service population;

TABLE 9.3 PROJECT SERVICE POPULATION ASSUMPTIONS

	Weekday Practice Day			Weekday Game Day			Weekend Game Day (Fall)			Weekend Game Day (Spring)		
	Participants	Spectators	Service Population	Participants	Spectators	Service Population	Participants	Spectators	Service Population	Participants	Spectators	Service Population
Multi-Purpose Field ^[1]	36	0	36	36	0	36	56	0	56	56	0	56
Baseball Field ^[2]	30	0	30	60	250	310	-	-	-	60	250	310
Softball Field ^[2]	20	0	20	40	250	290	-	-	-	40	250	290
Football or Track and Field ^[2]	100	0	100	100	100	200	200	1800	2000	-	-	-
Soccer/Rugby ^[2]	40	0	40	40	0	40	80	100	180	80	100	180
Golf	25	0	25	-	-	-	-	-	-	25	0	25
Total	251	0	251	276	600	876	336	1900	2236	261	600	861

^[1] Daily participant estimates for the Multi-Purpose Field were conservatively estimated based on the number of daily trips associated with the land use, assuming each vehicle makes one inbound and one outbound trip a day with an average vehicle ridership (AVR) of 1.0.

^[2] Participant estimates for the listed athletic teams based on the team sizes below (including coaches). Participant numbers doubled on game days to account for visiting team players and coaches.

Baseball: 30 team members

Softball: 20 team members

Football or Track and Field: 100 team members

Soccer or Rugby: 40 team members

Golf: 25 team members

9.2 VEHICLE MILES TRAVELED ANALYSIS RESULTS

Using the methodology described previously, estimates for daily VMT and VMT per service population were calculated for the Project uses based on the SCAG Travel Model and SBTAM average trip length data. A summary of the VMT calculations is provided in **Table 9.4**.

TABLE 9.4 PROJECT VMT PER SERVICE POPULATION SUMMARY

Scenario	Daily Project Trips	Average Trip Length (mi)	Project Daily VMT	Service Population (SP)	VMT per Service Population	VMT Threshold	Significant?
SCAG Travel Model							
Weekday Practice Day	179	6.67	1,194	251	4.76	30.61	No
Weekday Game Day	379	6.67	2,528	876	2.89	30.61	No
Weekend Game Day (Fall)	764	6.67	5,095	2,236	2.28	30.61	No
Weekend Game Day (Spring)	381	6.67	2,541	861	2.95	30.61	No
SBTAM							
Weekday Practice Day	179	7.26	1,300	251	5.18	24.60	No
Weekday Game Day	379	7.26	2,753	876	3.14	24.60	No
Weekend Game Day (Fall)	764	7.26	5,549	2,236	2.48	24.60	No
Weekend Game Day (Spring)	381	7.26	2,767	861	3.21	24.60	No

Table 9.5 below compare the Project impacts to the Claremont and Upland VMT impact thresholds.

As shown, based on data from the SCAG Travel Model, the Project is estimated to generate VMT at a rate between 2.28 and 4.76 VMT per service population for the four trip generation scenarios analyzed for the Project. This rate is much lower than the City of Claremont VMT threshold of 30.61 VMT per service population, which is shown on the screening results worksheets from the SGVCOG VMT Evaluation Tool in **Attachment H**. Thus, the Project is not expected to result in a significant VMT impact per the City of Claremont *Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment*.

TABLE 9.5 PROJECT VMT PER SERVICE POPULATION COMPARED TO THRESHOLD

Jurisdiction	Worst-Case VMT per Service Population	Jurisdiction VMT Baseline	Jurisdiction VMT Threshold	Significant?
Claremont	4.76	36.02	30.61 (15% below)	No
Upland	5.18	24.60	24.60	No

Additionally, based on data from the SBTAM, the Project is estimated to generate VMT at a rate between 2.48 and 5.18 VMT per service population for the four trip generation scenarios analyzed for the Project. This rate is much lower than the City of Upland VMT threshold of 24.60 VMT per service population, which is shown on the screening results output from the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool in **Attachment I**. Thus, the Project is not expected to result in a significant VMT impact per the City of Upland *Traffic Impact Analysis Guidelines*.

Both sets of guidelines additionally contain language that considers a project to have no cumulative VMT impact if it is consistent with the local RTP/SCS. This project is an infill project that reduces the urban heat island effect and is in close proximity to most of its users on the adjacent college campus. As a result, this Project has no significant cumulative project generated VMT impact.

Based on the analysis herein, the Project is expected to generate VMT well below the thresholds set by the Cities of Claremont and Upland. Therefore, the Project will not result in a significant VMT impact under CEQA.

PART 4 – CONCLUSION

10.0 NON-CEQA FINDINGS AND RECOMMENDATIONS

This section of the report summarizes the improvements and associated costs required to address “Non-CEQA” traffic impacts, to meet the Cities of Claremont and Upland’s level of service requirements for the analyses in Section 8. The improvement costs have been estimated using cost guidelines contained in **Appendix G** of the San Bernardino County CMP, 2005 Update, with some price escalation factors to account for economic and inflationary considerations. While originating in the San Bernardino County CMP, this cost menu is frequently employed in other settings. The Project’s fair-share contribution to the improvements at each location is identified in **Section 10.3** of this report.

The following offsite improvements are recommended to offset the Project’s area-wide “Non-CEQA” traffic impacts in conjunction with each “With-Project” scenario. The timing and phasing to construct such improvements will be contingent on each agency’s available project development capabilities and schedules, including collection of fair-share funds, project programming, design and construction.

- 6. Base Line Road & I-210 Ramps (Claremont): Widen and/or restripe the southbound approach of the I-210 Southbound On/Off-Ramp at Base Line Road to provide a second (dual) southbound right-turn lane. Modify the existing traffic signal to accommodate and optimize the additional lane and traffic volume demand.
- 13. 6th Street & Indian Hill Boulevard: Reconfigure the northbound approach lanes by adding a dedicated right-turn (curbside) lane. Implement active traffic management measures during Game Day events to divert westbound (outbound) event traffic away from the Indian Hill Boulevard/6th Street intersection, to travel south along Yale Avenue toward the traffic signal at 5th Street and Indian Hill Boulevard. Reconfigure the northbound approach lanes by adding a dedicated right-turn (curbside) lane. Restripe the westbound approach lanes from a single shared left/through/right-turn lane to one (1) left and one (1) shared through/right lane.
- 14. 6th Street & College Avenue: Modify the southbound, westbound and eastbound approaches on 6th Street and College Avenue to provide a shared through-right turn while maintaining one left-turn lane.
- 20. 1st Street & College Avenue: Widen and/or restripe the northbound and southbound approach lanes provide a dedicated left-turn lane, through lane, and shared through/right-turn lane, as well as two receiving lanes. Adjust the existing bicycle lanes to accommodate the proposed geometry.

It should be noted that the improvement costs and the corresponding fair-share costs presented in the following sections are preliminary and are subject to being updated to account for current costs. Improvement measures, specifics, and cost estimates would require final approval from the respective City Engineer(s), and where Caltrans jurisdiction is required, involve coordination with Caltrans District 7 and relevant regional planning agencies.

For those intersections where forecast traffic volumes—both from pre-Project and Project-related traffic sources—are expected to result in unacceptable operating conditions, this report recommends roadway improvements that would serve to improve intersection operations, lane geometry, increase capacity and/or reduce traffic delays. These capacity improvements involve a variety of roadway widening, traffic signal modification, and re-striping improvements to add lanes to specific approaches of impacted key intersections. The identified improvements are concluded to:

- Address the impact of existing traffic, Project traffic, and future non-project (ambient traffic growth and cumulative projects) traffic; and
- Improve Levels of Service to an acceptable range and/or to pre-project conditions.

10.1 NON-CEQA RECOMMENDED OFFSITE IMPROVEMENTS – OPENING YEAR 2027

Under the Opening Year 2027 With Project conditions, the following offsite improvements described in sub-sections 10.1.1 and 10.1.2 below are recommended to restore the affected intersections to projected satisfactory operations.

10.1.1 Opening Year 2027 Cumulative Plus Project (Practice Day) Gross Improvement Costs

Table 10.1 presents the improvements and their respective costs to alleviate the Year 2027 Cumulative Plus Project (Practice Day) (non-CEQA) traffic impacts at the one (1) impacted key study intersection. A review of Table 10.1 shows that the improvements recommended at the one (1) impacted intersection in the City of Claremont would cost approximately **\$627,000** before any consideration of fair-share allocations. This improvement estimate includes bridge modification costs on the southbound approach of the I-210 On/Off-Ramps at Baseline Road. The relative scope and

TABLE 10.1 OPENING YEAR 2027 CUMULATIVE PLUS PROJECT (PRACTICE DAY) IMPROVEMENTS AND COSTS

Key Intersection	Jurisdiction	Improvement Description	Improvement Cost
Base Line Rd & I-210 Ramps	Claremont/Caltrans	- Bridge Modification.	\$462,000
		- Construct 2nd SB right-turn lane.	\$66,000
		- Modify existing traffic signal.	\$99,000
		<i>Total</i>	<i>\$627,000</i>
City of Claremont Total Costs of Year 2027 Cumulative Plus Project (Practice Day) Improvements			\$627,000

10.1.2 Opening Year 2027 Cumulative Plus Project (Game Day) Gross Improvement Costs

Table 10.2 presents the improvements and their respective costs to alleviate the Year 2045 Cumulative Plus Project (Game Day) (non-CEQA) traffic impacts at the one (1) impacted key study intersection. A review of Table 10.2 shows that the improvements recommended at the one (1) impacted intersections in the City of Claremont would cost approximately **\$627,000** before any consideration of fair-share allocations. This improvement estimate includes bridge modification costs on the southbound approach of SR-210 Ramps at Baseline Road.

TABLE 10.2 OPENING YEAR 2027 CUMULATIVE PLUS PROJECT (GAME DAY) IMPROVEMENTS AND COSTS

Key Intersection	Jurisdiction	Improvement Description	Improvement Cost
Base Line Rd & I-210 Ramps	Claremont/Caltrans	- Bridge Modification.	\$462,000
		- Construct 2nd SB right-turn lane.	\$66,000
		- Modify existing traffic signal	\$99,000
		<i>Total</i>	\$627,000
City of Claremont Total Costs of Year 2027 Cumulative Plus Project (Game Day) Improvements			\$627,000

10.2 NON-CEQA RECOMMENDED OFFSITE IMPROVEMENTS – HORIZON YEAR 2045

Under the Horizon Year 2045 With Project conditions, the following offsite improvements described in sub-sections 10.2.1 and 10.2.2 below are recommended to restore the affected intersections to projected satisfactory operations.

10.2.1 Horizon Year 2045 Cumulative Plus Project (Practice Day) Gross Improvement Costs

Table 10.3 presents the recommended offsite improvements, and their respective costs, to alleviate the Year 2045 Cumulative Plus Project (Practice Day) (non-CEQA) traffic impacts at the three (3) affected key study intersections. A review of Table 10.3 shows that the additional improvements recommended at the three (3) affected intersections in the City of Claremont would cost approximately **\$250,000** before any consideration of fair-share allocations. This improvement estimate includes lane modifications and additions.

TABLE 10.3 HORIZON YEAR 2045 CUMULATIVE PLUS PROJECT (PRACTICE DAY) IMPROVEMENTS AND COSTS

Key Intersection	Jurisdiction	Improvement Description	Improvement Cost
6th St & Indian Hill Blvd	Claremont	Reconfigure approach lanes:	
		- Install NB right-turn lane;	\$25,000
		- Reconfigure WB approach lanes as 1 Left + 1 Through/Right	\$25,000
		<i>Total</i>	\$50,000
6th St & College Ave	Claremont	- Construct shared thru-right turn lane in SB, WB & EB directions	\$150,000
		<i>Total</i>	\$150,000
1st St & College Ave	Claremont	- Restripe NB/SB approach lanes to provide a dedicated left, through and through/right-turn lane, as well as two receiving lanes. Adjust existing bicycle lanes to accommodate the proposed geometry	\$100,000
		<i>Total</i>	\$100,000
City of Claremont Total Costs of Year 2045 Cumulative Plus Project (Practice Day) Improvements			\$300,000

10.2.2 Horizon Year 2045 Cumulative Plus Project (Game Day) Gross Improvement Costs

Table 10.4 presents the recommended offsite improvements, and their respective costs, to alleviate the Year 2045 Cumulative Plus Project (Game Day) (non-CEQA) traffic impacts at the three (3) affected key study intersections. Review of Table 10.4 shows that the improvements recommended at the three (3) affected intersections in the City of Claremont would cost approximately **\$250,000** before any consideration of fair-share allocations. This improvement estimate includes lane modifications and additions.

TABLE 10.4 HORIZON YEAR 2045 CUMULATIVE PLUS PROJECT (GAME DAY) IMPROVEMENTS AND COSTS

Key Intersection	Jurisdiction	Improvement Description	Improvement Cost
6th St & Indian Hill Blvd	Claremont	Reconfigure approach lanes:	
		- Install NB right-turn lane;	\$25,000
		- Reconfigure WB approach lanes as 1 Left + 1 Through/Right	\$25,000
		<i>Total</i>	\$50,000
6th St & College Ave	Claremont	- Construct shared thru-right turn lane in SB, WB & EB directions	\$150,000
		<i>Total</i>	\$150,000
1st St & College Ave	Claremont	- Restripe NB/SB approach lanes to provide a dedicated left, through and through/right-turn lane, as well as two receiving lanes. Adjust existing bicycle lanes to accommodate the proposed geometry	\$100,000
		<i>Total</i>	\$100,000
City of Claremont Total Costs of Year 2045 Cumulative Plus Project (Practice Day) Improvements			\$300,000

10.3.7 Horizon Year 2045 Cumulative Plus Project (Game Day: Fall) Gross Improvement Costs

Table 10.5 presents the recommended offsite improvements, and their respective costs, to alleviate the Year 2045 Cumulative Plus Project (Game Day: Fall) (non-CEQA) traffic impacts at the four (4) affected key study intersections. A review of Table 10.5 shows that the improvements recommended at the four (4) affected intersections in the City of Claremont would cost approximately **\$725,000** before any consideration of fair-share allocations. This improvement estimate includes lane modifications and additions.

TABLE 10.5 HORIZON YEAR 2045 CUMULATIVE PLUS PROJECT (GAME DAY: FALL) IMPROVEMENTS AND COSTS

Key Intersection	Jurisdiction	Improvement Description	Improvement Cost
Base Line Rd & I-210 Ramps	Claremont/ Caltrans	- Bridge Modification	\$462,000
		- Construct 2nd SB right-turn lane	\$66,000
		- Modify existing traffic signal	\$99,000
		<i>Total</i>	\$627,000
6th St & Indian Hill Blvd	Claremont	Reconfigure approach lanes: - Install NB right-turn lane;	\$25,000

		- Reconfigure WB approach lanes as 1 Left + 1 Through/Right	\$25,000
		<i>Total</i>	<i>\$50,000</i>
6th St & College Ave	Claremont	- Construct shared thru-right turn lane in SB, WB & EB directions	\$150,000
		<i>Total</i>	<i>\$150,000</i>
1st St & College Ave	Claremont	- Restripe NB/SB approach lanes to provide a dedicated left, through and through/right-turn lane, as well as two receiving lanes. Adjust existing bicycle lanes to accommodate the proposed geometry	\$100,000
		<i>Total</i>	<i>\$100,000</i>
City of Claremont Total Costs of Year 2045 Cumulative Plus Project (Game Day: Fall) Improvements			\$927,000

10.3.8 Horizon Year 2045 Cumulative Plus Project (Game Day: Spring) Gross Improvement Costs

Table 10.6 presents the improvements and their respective costs to alleviate the Year 2045 Cumulative Plus Project (Game Day: Spring) (non-CEQA) traffic impacts at the four (4) impacted key study intersections. A review of Table 10.6 shows that the improvements recommended at the four (4) impacted intersections in the City of Claremont would cost approximately **\$725,000** before any consideration of fair-share allocations. This improvement estimate includes lane modifications and additions.

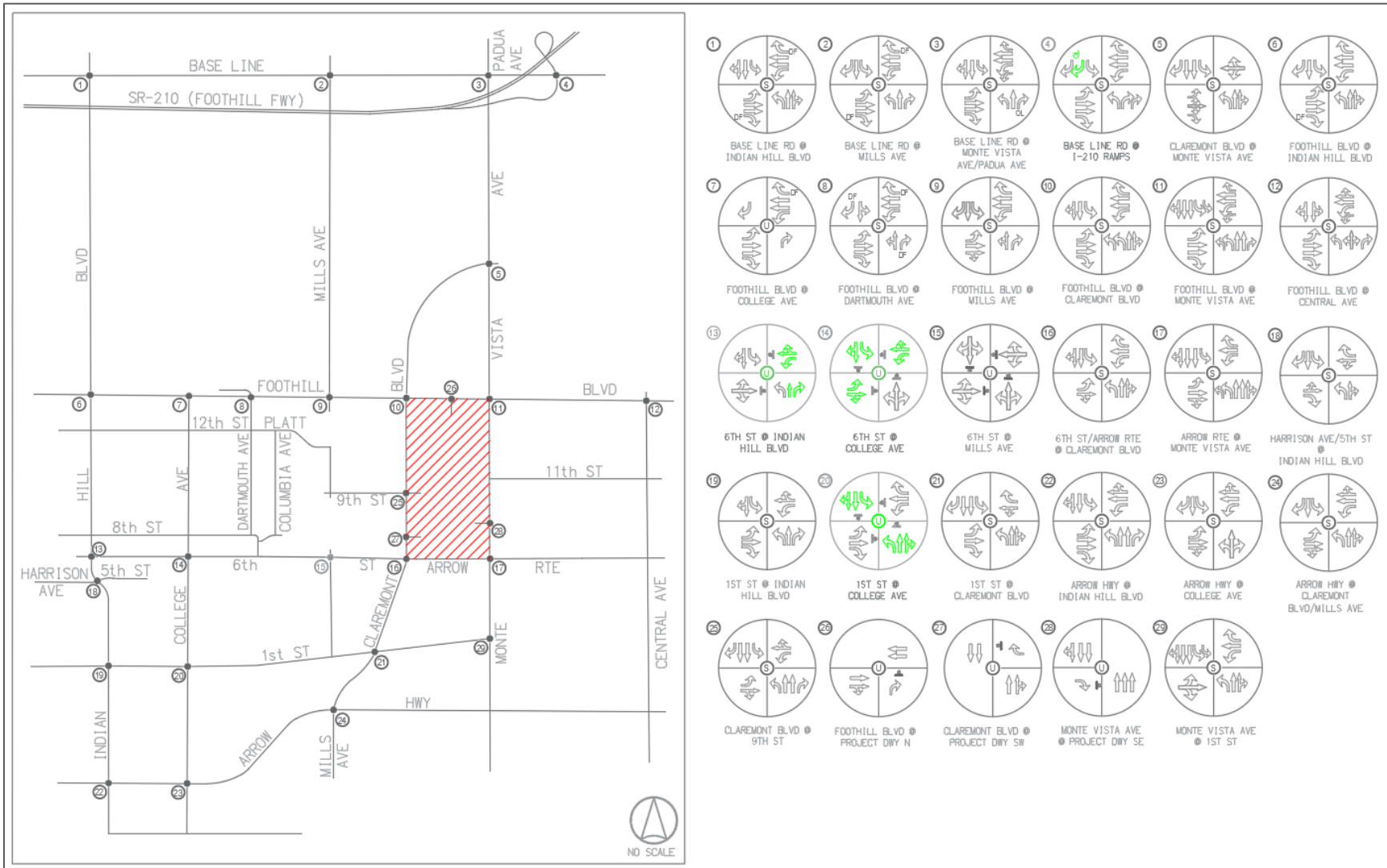
TABLE 10.6 HORIZON YEAR 2045 CUMULATIVE PLUS PROJECT (GAME DAY: SPRING) IMPROVEMENTS AND COSTS

Key Intersection	Jurisdiction	Improvement Description	Improvement Cost
Base Line Rd & I-210 Ramps	Claremont/ Caltrans	- Bridge Modification	\$462,000
		- Construct 2nd SB right-turn lane	\$66,000
		- Modify existing traffic signal	\$99,000
		<i>Total</i>	<i>\$627,000</i>
6th St & Indian Hill Blvd	Claremont	Reconfigure approach lanes:	
		- Install NB right-turn lane;	\$25,000
		- Reconfigure WB approach lanes as 1 Left + 1 Through/Right	\$25,000
		<i>Total</i>	<i>\$50,000</i>
6th St & College Ave	Claremont	- Construct shared thru-right turn lane in SB, WB & EB directions	\$150,000
		<i>Total</i>	<i>\$150,000</i>
1st St & College Ave	Claremont	- Restripe NB/SB approach lanes to provide a dedicated left, through and through/right-turn lane, as well as two receiving lanes. Adjust existing bicycle lanes to accommodate the proposed geometry	\$100,000
		<i>Total</i>	<i>\$100,000</i>
City of Claremont Total Costs of Year 2045 Cumulative Plus Project (Game Day: Fall) Improvements			\$927,000

Key Intersection	Jurisdiction	Improvement Description	Improvement Cost
Base Line Rd & I-210 Ramps	Claremont/ Caltrans	- Bridge Modification	\$462,000
		- Construct 2nd SB right-turn lane	\$66,000
		- Modify existing traffic signal	\$99,000
		<i>Total</i>	<i>\$627,000</i>
6th St & Indian Hill Blvd	Claremont	Reconfigure approach lanes:	
		- Install NB right-turn lane;	\$25,000
		- Reconfigure WB approach lanes as 1 Left + 1 Through/Right	\$25,000
		<i>Total</i>	<i>\$50,000</i>
6th St & College Ave	Claremont	- Construct shared thru-right turn lane in SB, WB & EB directions	\$150,000
		<i>Total</i>	<i>\$150,000</i>
1st St & College Ave	Claremont	- Restripe NB/SB approach lanes to provide a dedicated left, through and through/right-turn lane, as well as two receiving lanes. Adjust existing bicycle lanes to accommodate the proposed geometry	\$100,000
		<i>Total</i>	<i>\$100,000</i>
City of Claremont Total Costs of Year 2045 Cumulative Plus Project (Game Day: Spring) Improvements			\$927,000

Figure 10.1 graphically illustrates the updated level of service results for the affected intersections after implementation of the recommended improvements.

FIGURE 10.1 H.Y. WITH PROJECT RECOMMENDED IMPROVEMENTS



10.3 FAIR-SHARE ANALYSIS

The (non-CEQA) LOS transportation impacts associated with the development of the Project were determined based on a comparative analysis of "Pre-Project" conditions (i.e., Year 2027 Without Project, and Year 2045 Without Project) versus "With Project" conditions. Based on the results of these analyses, the Project may be expected to construct improvements and/or pay a proportional "fair-share" of the improvement costs to alleviate the total (non-CEQA) traffic impact incurred at each affected intersection, resulting from background traffic growth, cumulative development project traffic, and the Project's own generated trips. These fair-share calculations are consistent with typical traffic engineering practice as well as the recommended methodology contained in the San Bernardino County CMP as carried over to this setting.

10.3.1 Opening Year 2027 Plus Project

The Project fair-share percentages (based on greatest peak hour impact) at the one (1) impacted intersection for the Opening Year Plus Project (Practice and Game Day) traffic conditions are shown below in **Table 10.7** and **Table 10.8**:

TABLE 10.7
INTERSECTION PROJECT FAIR-SHARE CONTRIBUTION – OY 2027 PLUS PROJECT (PRACTICE DAY)

Key Intersection	Jurisdiction	Affected Time Period	Existing Traffic	Year 2027 Cumulative Traffic	Year 2027 Cum. + Project Traffic	Net Project Percent Increase	Total Improvement Cost	Project Fair-Share Contribution
6. Base Line Rd & I-210 Ramps	Claremont /Caltrans	AM	3,367	3,970	3,986	3%	\$627,000	\$ 17,000

TABLE 10.8
INTERSECTION PROJECT FAIR-SHARE CONTRIBUTION – OY 2027 PLUS PROJECT (GAME DAY)

Key Intersection	Jurisdiction	Affected Time Period	Existing Traffic	Year 2027 Cumulative Traffic	Year 2027 Cum. + Project Traffic	Net Project Percent Increase	Total Improvement Cost	Project Fair-Share Contribution
6. Base Line Rd & I-210 Ramps	Claremont /Caltrans	AM	3,367	3,970	3,996	4%	\$627,000	\$ 26,000

10.3.2 Horizon Year 2045 Plus Project

The Project fair-share percentages, based on greatest peak hour impact, at the three (and four) affected intersections for the Horizon Year Plus Project (i.e., Practice Day, Game Day, Game Day [Fall], and Game Day [Spring]) scenarios are shown below in **Table 10.9** through **Table 10.12**:

TABLE 10.9
YEAR 2045 CUMULATIVE PLUS PROJECT (PRACTICE DAY) INTERSECTION PROJECT FAIR-SHARE CONTRIBUTION

Key Intersection	Jurisdiction	Affected Time Period	Existing Traffic	Year 2027 Cumulative Traffic	Year 2027 Cum. + Project Traffic	Net Project Percent Increase	Total Improvement Cost	Project Fair-Share Contribution
13. 6th St & Indian Hill Blvd	Claremont	AM	1,288	1,833	1,833	0.0%	\$ 50,000	N/A
		PM	1,155	1,781	1,789	1.2%	\$ 50,000	\$ 1,000
14. 6th St & College Ave	Claremont	PM	742	1,296	1,304	1.5%	\$ 150,000	\$ 3,000
20. 1st St & College Ave	Claremont	PM	952	1,642	1,650	1.1%	\$ 100,000	\$ 2,000

TABLE 10.10
YEAR 2045 CUMULATIVE PLUS PROJECT (GAME DAY) INTERSECTION PROJECT FAIR-SHARE CONTRIBUTION

Key Intersection	Jurisdiction	Affected Time Period	Existing Traffic	Year 2027 Cumulative Traffic	Year 2027 Cum. + Project Traffic	Net Project Percent Increase	Total Improvement Cost	Project Fair-Share Contribution
13. 6th St & Indian Hill Blvd	Claremont	AM	1,288	1,833	1,833	0.0%	\$ 50,000	N/A
		PM	1,155	1,781	1,794	2.0%	\$ 50,000	\$ 1,000
14. 6th St & College Ave	Claremont	PM	742	1,296	1,309	2.3%	\$ 150,000	\$ 4,000
20. 1st St & College Ave	Claremont	PM	952	1,642	1,655	1.8%	\$ 100,000	\$ 2,000

TABLE 10.11
YEAR 2045 CUMULATIVE PLUS PROJECT (GAME DAY - FALL) INTERSECTION PROJECT FAIR-SHARE CONTRIBUTION

Key Intersection	Jurisdiction	Affected Time Period	Existing Traffic	Year 2027 Cumulative Traffic	Year 2027 Cum. + Project Traffic	Net Project Percent Increase	Total Improvement Cost	Project Fair-Share Contribution
6. Base Line Rd & I-210 Ramps	Claremont /Caltrans	AM	1,855	4,128	4,184	2.4%	\$ 627,000	\$ 16,000
13. 6th St & Indian Hill Blvd	Claremont	AM	1,288	1,324	1,343	34.7%	\$ 50,000	\$ 18,000
		PM	1,155	1,983	2,009	3.0%	\$ 50,000	\$ 2,000
14. 6th St & College Ave	Claremont	PM	742	1,281	1,307	4.7%	\$ 150,000	\$ 7,000
20. 1st St & College Ave	Claremont	PM	952	1,501	1,527	4.6%	\$ 100,000	\$ 5,000

**TABLE 10.12
YEAR 2045 CUMULATIVE PLUS PROJECT (GAME DAY - SPRING) INTERSECTION PROJECT FAIR-SHARE
CONTRIBUTION**

Key Intersection	Jurisdiction	Affected Time Period	Existing Traffic	Year 2027 Cumulative Traffic	Year 2027 Cum. + Project Traffic	Net Project Percent Increase	Total Improvement Cost	Project Fair-Share Contribution
6. Base Line Rd & I-210 Ramps	Claremont /Caltrans	AM	3,367	4,128	4,163	4.4%	\$ 427,500	\$ 19,000
13. 6th St & Indian Hill Blvd	Claremont	AM	1,288	1,324	1,336	25.2%	\$ 50,000	\$ 13,000
		PM	1,155	1,983	1,999	1.9%	\$ 50,000	\$ 1,000
14. 6th St & College Ave	Claremont	PM	742	1,281	1,297	2.9%	\$ 150,000	\$ 5,000
20. 1st St & College Ave	Claremont	PM	952	1,501	1,517	2.8%	\$ 100,000	\$ 3,000

APPENDIX A
TRAFFIC COUNT DATA

**Base Line Rd & Indian Hill Blvd
Claremont California
Thursday, January 25, 2024**

Time	Southbound Indian Hill Blvd						Westbound Base Line Rd						Northbound Indian Hill Blvd						Eastbound Base Line Rd						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:00 AM	0	9	3	8	0	20	0	18	152	5	2	175	0	13	2	15	0	30	0	5	34	11	2	50	275
7:15 AM	0	6	9	10	0	25	0	30	181	3	1	214	0	9	7	15	0	31	0	2	49	8	0	59	329
7:30 AM	0	12	12	13	1	37	0	71	217	6	1	294	0	17	2	29	0	48	0	2	73	22	0	97	476
7:45 AM	2	12	28	16	0	58	0	79	259	2	0	340	0	29	9	37	0	75	0	5	101	39	3	145	618
Hourly Total	2	39	52	47	1	140	0	198	809	16	4	1023	0	68	20	96	0	184	0	14	257	80	5	351	1698
8:00 AM	0	2	36	12	0	50	0	105	167	10	0	282	0	22	10	50	0	82	0	8	120	60	3	188	602
8:15 AM	0	10	83	13	0	106	0	122	185	44	0	351	1	40	14	76	0	131	0	11	108	89	7	208	796
8:30 AM	0	9	13	12	0	34	0	45	127	8	0	180	1	32	12	101	3	146	0	8	103	31	1	142	502
8:45 AM	0	4	13	16	0	33	0	43	138	6	0	187	0	15	8	15	0	38	0	10	94	25	0	129	387
Hourly Total	0	25	145	53	0	223	0	315	617	68	0	1000	2	109	44	242	3	397	0	37	425	205	11	667	2287
4:00 PM	0	9	16	3	0	28	0	37	95	10	0	142	0	35	8	49	0	92	0	18	177	18	1	213	475
4:15 PM	0	9	11	4	0	24	0	34	125	8	2	167	0	43	10	49	0	102	0	11	178	35	1	224	517
4:30 PM	0	7	13	7	1	27	0	33	87	11	3	131	0	27	13	41	0	81	0	7	168	32	2	207	446
4:45 PM	0	10	12	7	3	29	0	37	121	10	0	168	0	34	12	51	0	97	0	9	196	23	1	228	522
Hourly Total	0	35	52	21	4	108	0	141	428	39	5	608	0	139	43	190	0	372	0	45	719	108	5	872	1960
5:00 PM	0	13	17	9	0	39	0	33	108	18	1	159	1	69	20	66	1	156	0	16	158	25	2	199	553
5:15 PM	1	12	12	9	0	34	0	43	103	12	2	158	0	36	16	54	1	106	0	18	185	30	0	233	531
5:30 PM	0	10	8	10	0	28	0	43	93	7	0	143	0	28	17	48	1	93	0	15	152	18	0	185	449
5:45 PM	0	4	14	9	0	27	0	49	107	10	0	166	0	32	13	47	0	92	0	17	179	28	0	224	509
Hourly Total	1	39	51	37	0	128	0	168	411	47	3	626	1	165	66	215	3	447	0	66	674	101	2	841	2042
4 Hours TOTAL	3	138	300	158	5	599	0	822	2265	170	12	3257	3	481	173	743	6	1400	0	162	2075	494	23	2731	7987
Cars	3	138	299	155	5	595	0	819	2249	168	12	3236	3	475	172	742	5	1392	0	159	2067	488	19	2714	7937
Heavy Vehicles	0	0	1	3	0	4	0	3	16	2	0	21	0	6	1	1	1	8	0	3	8	6	4	17	50
Heavy Vehicle %	0.00%	0.00%	0.33%	1.90%	0.00%	0.67%	0.00%	0.36%	0.71%	1.18%	0.00%	0.64%	0.00%	1.25%	0.58%	0.13%	16.67%	0.57%	0.00%	1.85%	0.39%	1.21%	17.39%	0.62%	0.63%

**Base Line Rd & Indian Hill Blvd
Claremont California
Thursday, January 25, 2024
AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:45 AM	2	12	28	16	0	58	0	79	259	2	0	340	0	29	9	37	0	75	0	5	101	39	3	145	618
8:00 AM	0	2	36	12	0	50	0	105	167	10	0	282	0	22	10	50	0	82	0	8	120	60	3	188	602
8:15 AM	0	10	83	13	0	106	0	122	185	44	0	351	1	40	14	76	0	131	0	11	108	89	7	208	796
8:30 AM	0	9	13	12	0	34	0	45	127	8	0	180	1	32	12	101	3	146	0	8	103	31	1	142	502
Peak Hour Total	2	33	160	53	0	248	0	351	738	64	0	1153	2	123	45	264	3	434	0	32	432	219	14	683	2518
PHF	0.250	0.688	0.482	0.828	0.000	0.585	0.000	0.719	0.712	0.364	0.000	0.821	0.500	0.769	0.804	0.653	0.250	0.743	0.000	0.727	0.900	0.615	0.500	0.821	0.791

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:45 PM	0	10	12	7	3	29	0	37	121	10	0	168	0	34	12	51	0	97	0	9	196	23	1	228	522
5:00 PM	0	13	17	9	0	39	0	33	108	18	1	159	1	69	20	66	1	156	0	16	158	25	2	199	553
5:15 PM	1	12	12	9	0	34	0	43	103	12	2	158	0	36	16	54	1	106	0	18	185	30	0	233	531
5:30 PM	0	10	8	10	0	28	0	43	93	7	0	143	0	28	17	48	1	93	0	15	152	18	0	185	449
Peak Hour Total	1	45	49	35	3	130	0	156	425	47	3	628	1	167	65	219	3	452	0	58	691	96	3	845	2055
PHF	0.250	0.865	0.721	0.875	0.250	0.833	0.000	0.907	0.878	0.653	0.375	0.935	0.250	0.605	0.813	0.830	0.750	0.724	0.000	0.806	0.881	0.800	0.375	0.907	0.929

Total Vehicles On Leg	1107
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
599			508		
Southbound					
Cars	155	299	138	3	5
Heavy	3	1	0	0	0
Total	158	300	138	3	5



Total Vehicles on Leg 5635	Vehicles Entering Intersection 2731	Eastbound	Cars	Heavy	Total
			19	4	23
	0		0	0	
	159		3	162	
	2067		8	2075	
	488		6	494	
Vehicles Exiting Intersection 2904					



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 3257	Total Vehicles on Leg 6213
168	2	170			
2249	16	2265			
819	3	822			
0	0	0			
12	0	12			
Vehicles Exiting Intersection 2956					



4 Hour Volumes

Cars	5	3	475	172	742
Heavy	1	0	6	1	1
Total	6	3	481	173	743
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
1400			1619		
Total Vehicles On Leg			3019		



**Base Line Rd & Indian Hill Blvd
Claremont California
Saturday, January 27, 2024**

Time	Southbound Indian Hill Blvd						Westbound Base Line Rd						Northbound Indian Hill Blvd						Eastbound Base Line Rd						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	11	17	20	1	48	0	38	118	20	1	176	0	18	10	40	0	68	0	6	110	17	0	133	425
11:15 AM	0	20	17	7	0	44	0	49	112	10	1	171	0	30	11	54	2	95	0	8	96	15	2	119	429
11:30 AM	0	15	13	16	4	44	0	58	120	10	0	188	0	22	10	47	0	79	0	17	87	20	2	124	435
11:45 AM	0	21	20	21	0	62	0	61	135	13	0	209	0	24	6	48	0	78	0	10	101	20	4	131	480
Hourly Total	0	67	67	64	5	198	0	206	485	53	2	744	0	94	37	189	2	320	0	41	394	72	8	507	1769
12:00 PM	0	13	12	7	0	32	0	59	113	13	0	185	0	30	9	40	0	79	0	10	95	19	0	124	420
12:15 PM	0	20	14	10	0	44	0	47	105	10	1	162	0	24	10	37	0	71	0	8	110	21	1	139	416
12:30 PM	0	11	16	17	0	44	0	32	104	11	0	147	0	18	15	53	0	86	0	6	109	21	0	136	413
12:45 PM	0	12	12	21	0	45	0	57	115	9	1	181	0	23	13	28	0	64	0	11	111	16	1	138	428
Hourly Total	0	56	54	55	0	165	0	195	437	43	2	675	0	95	47	158	0	300	0	35	425	77	2	537	1677
1:00 PM	0	9	12	10	0	31	0	49	117	8	1	174	0	38	13	45	0	96	0	9	79	19	1	107	408
1:15 PM	0	8	11	10	0	29	0	44	107	12	0	163	0	15	12	61	0	88	0	18	98	19	2	135	415
1:30 PM	0	7	12	8	0	27	0	45	97	8	0	150	0	29	13	55	1	97	0	18	108	17	0	143	417
1:45 PM	0	12	9	9	0	30	1	33	107	12	0	153	0	26	19	54	0	99	0	6	111	21	0	138	420
Hourly Total	0	36	44	37	0	117	1	171	428	40	1	640	0	108	57	215	1	380	0	51	396	76	3	523	1660
2:00 PM	0	6	10	8	0	24	0	35	97	4	0	136	0	31	9	40	0	80	0	13	112	18	0	143	383
2:15 PM	0	11	7	9	0	27	0	40	115	9	0	164	0	29	6	48	0	83	0	8	104	21	6	133	407
2:30 PM	0	11	16	10	0	37	0	36	108	8	1	152	0	27	7	35	4	69	0	5	105	23	0	133	391
2:45 PM	1	9	17	8	0	35	0	44	106	11	0	161	0	32	13	46	2	91	0	13	108	15	1	136	423
Hourly Total	1	37	50	35	0	123	0	155	426	32	1	613	0	119	35	169	6	323	0	39	429	77	7	545	1604
4 Hours TOTAL	1	196	215	191	5	603	1	727	1776	168	6	2672	0	416	176	731	9	1323	0	166	1644	302	20	2112	6710
Cars	1	196	215	191	4	603	1	724	1763	168	5	2656	0	411	175	730	9	1316	0	166	1639	299	16	2104	6679
Heavy Vehicles	0	0	0	0	1	0	0	3	13	0	1	16	0	5	1	1	0	7	0	0	5	3	4	8	31
Heavy Vehicle %	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.41%	0.73%	0.00%	16.67%	0.60%	0.00%	1.20%	0.57%	0.14%	0.00%	0.53%	0.00%	0.00%	0.30%	0.99%	20.00%	0.38%	0.46%

**Base Line Rd & Indian Hill Blvd
Claremont California
Saturday, January 27, 2024
AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	11	17	20	1	48	0	38	118	20	1	176	0	18	10	40	0	68	0	6	110	17	0	133	425
11:15 AM	0	20	17	7	0	44	0	49	112	10	1	171	0	30	11	54	2	95	0	8	96	15	2	119	429
11:30 AM	0	15	13	16	4	44	0	58	120	10	0	188	0	22	10	47	0	79	0	17	87	20	2	124	435
11:45 AM	0	21	20	21	0	62	0	61	135	13	0	209	0	24	6	48	0	78	0	10	101	20	4	131	480
Peak Hour Total	0	67	67	64	5	198	0	206	485	53	2	744	0	94	37	189	2	320	0	41	394	72	8	507	1769
PHF	0.000	0.798	0.838	0.762	0.313	0.798	0.000	0.844	0.898	0.663	0.500	0.890	0.000	0.783	0.841	0.875	0.250	0.842	0.000	0.603	0.895	0.900	0.500	0.953	0.921

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
12:00 PM	0	13	12	7	0	32	0	59	113	13	0	185	0	30	9	40	0	79	0	10	95	19	0	124	420
12:15 PM	0	20	14	10	0	44	0	47	105	10	1	162	0	24	10	37	0	71	0	8	110	21	1	139	416
12:30 PM	0	11	16	17	0	44	0	32	104	11	0	147	0	18	15	53	0	86	0	6	109	21	0	136	413
12:45 PM	0	12	12	21	0	45	0	57	115	9	1	181	0	23	13	28	0	64	0	11	111	16	1	138	428
Peak Hour Total	0	56	54	55	0	165	0	195	437	43	2	675	0	95	47	158	0	300	0	35	425	77	2	537	1677
PHF	0.000	0.700	0.844	0.655	0.000	0.917	0.000	0.826	0.950	0.827	0.500	0.912	0.000	0.792	0.783	0.745	0.000	0.872	0.000	0.795	0.957	0.917	0.500	0.966	0.980

Total Vehicles On Leg	1114
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
603			511		
Southbound					
Cars	191	215	196	1	4
Heavy	0	0	0	0	1
Total	191	215	196	1	5



Total Vehicles on Leg 4495	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	2112		16	4	20
			0	0	0
	Vehicles Exiting Intersection		166	0	166
	2383		1639	5	1644
			299	3	302



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 5244
168	0	168		2672	
1763	13	1776			
724	3	727		Vehicles Exiting Intersection	
1	0	1		2572	
5	1	6			



4 Hour Volumes

Cars	9	0	411	175	730
Heavy	0	0	5	1	1
Total	9	0	416	176	731
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
1323			1244		
Total Vehicles On Leg			2567		



**Base Line Rd & Mills Ave
Claremont California
Thursday, January 25, 2024**

Time	Southbound Mills Ave						Westbound Base Line Rd						Northbound Mills Ave						Eastbound Base Line Rd						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:00 AM	0	5	9	15	0	29	0	19	140	4	1	163	0	14	10	11	0	35	0	8	45	5	0	58	285
7:15 AM	0	14	11	25	0	50	0	27	149	5	0	181	0	22	10	10	0	42	0	4	62	8	1	74	347
7:30 AM	0	11	38	34	0	83	0	33	225	2	0	260	0	20	15	15	0	50	0	11	76	27	1	114	507
7:45 AM	0	16	76	46	1	138	0	48	224	7	0	279	0	35	27	35	1	97	0	13	95	50	0	158	672
Hourly Total	0	46	134	120	1	300	0	127	738	18	1	883	0	91	62	71	1	224	0	36	278	90	2	404	1811
8:00 AM	0	28	39	41	1	108	0	31	224	4	0	259	0	42	50	39	0	131	0	21	104	36	0	161	659
8:15 AM	0	17	21	45	0	83	0	39	219	10	0	268	0	27	13	11	0	51	0	18	116	24	0	158	560
8:30 AM	0	9	12	21	0	42	0	33	132	6	1	171	0	23	18	14	0	55	0	21	174	24	0	219	487
8:45 AM	0	17	20	22	0	59	0	27	138	9	1	174	0	21	12	12	0	45	0	8	87	21	0	116	394
Hourly Total	0	71	92	129	1	292	0	130	713	29	2	872	0	113	93	76	0	282	0	68	481	105	0	654	2100
4:00 PM	0	17	20	10	1	47	0	20	97	14	3	131	0	26	28	19	0	73	0	19	171	22	0	212	463
4:15 PM	0	9	14	23	0	46	0	27	124	12	0	163	0	31	13	20	1	64	1	18	184	20	0	223	496
4:30 PM	0	12	14	10	1	36	0	11	99	16	2	126	0	28	17	21	2	66	0	17	164	26	1	207	435
4:45 PM	0	17	26	26	0	69	1	30	108	9	0	148	0	39	18	27	3	84	0	25	179	18	11	222	523
Hourly Total	0	55	74	69	2	198	1	88	428	51	5	568	0	124	76	87	6	287	1	79	698	86	12	864	1917
5:00 PM	0	16	17	20	3	53	0	17	118	16	3	151	0	32	34	33	0	99	0	20	200	18	0	238	541
5:15 PM	0	14	11	25	1	50	0	25	112	12	1	149	0	29	19	25	0	73	0	21	193	24	0	238	510
5:30 PM	0	13	18	14	0	45	0	19	118	9	0	146	0	28	24	24	1	76	0	26	156	22	0	204	471
5:45 PM	0	15	8	20	0	43	0	22	115	15	6	152	0	25	18	17	1	60	0	17	169	25	7	211	466
Hourly Total	0	58	54	79	4	191	0	83	463	52	10	598	0	114	95	99	2	308	0	84	718	89	7	891	1988
4 Hours TOTAL	0	230	354	397	8	981	1	428	2342	150	18	2921	0	442	326	333	9	1101	1	267	2175	370	21	2813	7816
Cars	0	226	352	394	5	972	1	423	2332	149	14	2905	0	437	323	329	5	1089	1	266	2167	369	21	2803	7769
Heavy Vehicles	0	4	2	3	3	9	0	5	10	1	4	16	0	5	3	4	4	12	0	1	8	1	0	10	47
Heavy Vehicle %	0.00%	1.74%	0.56%	0.76%	37.50%	0.92%	0.00%	1.17%	0.43%	0.67%	22.22%	0.55%	0.00%	1.13%	0.92%	1.20%	44.44%	1.09%	0.00%	0.37%	0.37%	0.27%	0.00%	0.36%	0.60%

**Base Line Rd & Mills Ave
Claremont California
Thursday, January 25, 2024**

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:30 AM	0	11	38	34	0	83	0	33	225	2	0	260	0	20	15	15	0	50	0	11	76	27	1	114	507
7:45 AM	0	16	76	46	1	138	0	48	224	7	0	279	0	35	27	35	1	97	0	13	95	50	0	158	672
8:00 AM	0	28	39	41	1	108	0	31	224	4	0	259	0	42	50	39	0	131	0	21	104	36	0	161	659
8:15 AM	0	17	21	45	0	83	0	39	219	10	0	268	0	27	13	11	0	51	0	18	116	24	0	158	560
Peak Hour Total	0	72	174	166	2	412	0	151	892	23	0	1066	0	124	105	100	1	329	0	63	391	137	1	591	2398
PHF	0.000	0.643	0.572	0.902	0.500	0.746	0.000	0.786	0.991	0.575	0.000	0.955	0.000	0.738	0.525	0.641	0.250	0.628	0.000	0.750	0.843	0.685	0.250	0.918	0.892

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:45 PM	0	17	26	26	0	69	1	30	108	9	0	148	0	39	18	27	3	84	0	25	179	18	11	222	523
5:00 PM	0	16	17	20	3	53	0	17	118	16	3	151	0	32	34	33	0	99	0	20	200	18	0	238	541
5:15 PM	0	14	11	25	1	50	0	25	112	12	1	149	0	29	19	25	0	73	0	21	193	24	0	238	510
5:30 PM	0	13	18	14	0	45	0	19	118	9	0	146	0	28	24	24	1	76	0	26	156	22	0	204	471
Peak Hour Total	0	60	72	85	4	217	1	91	456	46	4	594	0	128	95	109	4	332	0	92	728	82	11	902	2045
PHF	0.000	0.882	0.692	0.817	0.333	0.786	0.250	0.758	0.966	0.719	0.333	0.983	0.000	0.821	0.699	0.826	0.333	0.838	0.000	0.885	0.910	0.854	0.250	0.947	0.945

Total Vehicles On Leg	1724
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
981			743		
Southbound					
Cars	394	352	226	0	5
Heavy	3	2	4	0	3
Total	397	354	230	0	8



Total Vehicles on Leg 5995	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	2813		21	0	21
			1	0	1
	Vehicles Exiting Intersection		266	1	267
	3182		2167	8	2175
			369	1	370



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 5660
149	1	150		2921	
2332	10	2342			
423	5	428		Vehicles Exiting Intersection	
1	0	1		2739	
14	4	18			



4 Hour Volumes

Cars	5	0	437	323	329
Heavy	4	0	5	3	4
Total	9	0	442	326	333
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
1101			1152		
Total Vehicles On Leg			2253		



**Base Line Rd & Mills Ave
Claremont California
Saturday, January 27, 2024**

Time	Southbound Mills Ave						Westbound Base Line Rd						Northbound Mills Ave						Eastbound Base Line Rd						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	18	15	33	1	66	0	13	107	20	5	140	0	30	17	15	2	62	0	15	117	12	1	144	412
11:15 AM	0	31	21	47	3	99	0	26	107	16	4	149	0	32	33	17	5	82	0	21	117	16	1	154	484
11:30 AM	0	18	23	24	1	65	0	17	116	20	0	153	0	20	14	24	6	58	0	19	141	9	4	169	445
11:45 AM	0	22	22	33	0	77	0	28	144	25	1	197	0	21	24	14	5	59	1	15	121	28	2	165	498
Hourly Total	0	89	81	137	5	307	0	84	474	81	10	639	0	103	88	70	18	261	1	70	496	65	8	632	1839
12:00 PM	0	30	17	30	0	77	0	22	108	16	3	146	0	39	29	21	4	89	0	12	128	15	1	155	467
12:15 PM	0	16	14	38	0	68	0	15	108	11	4	134	0	24	20	17	2	61	0	22	122	13	1	157	420
12:30 PM	0	33	22	30	0	85	0	27	83	11	3	121	1	23	7	20	1	51	0	18	114	13	1	145	402
12:45 PM	0	24	25	28	0	77	0	24	134	11	4	169	0	19	22	14	3	55	0	14	113	13	0	141	441
Hourly Total	0	103	78	126	0	307	0	88	433	49	14	570	1	105	78	72	10	256	0	66	477	54	3	597	1730
1:00 PM	0	22	28	32	0	82	0	18	115	19	1	152	0	26	25	15	0	66	0	14	119	9	1	142	442
1:15 PM	0	25	23	33	1	81	0	28	89	16	1	133	0	29	19	23	4	71	1	22	126	17	0	166	451
1:30 PM	0	15	24	27	1	66	0	17	97	15	5	129	0	24	19	14	1	57	0	9	133	20	1	162	414
1:45 PM	0	22	38	36	2	96	0	18	98	15	4	131	0	17	20	16	0	53	0	16	138	14	0	168	448
Hourly Total	0	84	113	128	4	325	0	81	399	65	11	545	0	96	83	68	5	247	1	61	516	60	2	638	1755
2:00 PM	0	17	14	31	0	62	0	30	92	16	1	138	0	22	22	13	1	57	0	15	143	15	1	173	430
2:15 PM	0	15	28	25	0	68	1	15	108	10	1	134	0	33	15	20	2	68	0	20	107	16	0	143	413
2:30 PM	0	16	20	32	0	68	0	20	85	13	2	118	0	18	15	14	0	47	0	20	130	13	0	163	396
2:45 PM	0	19	17	30	0	66	0	18	99	11	5	128	0	32	18	15	1	65	0	12	147	10	0	169	428
Hourly Total	0	67	79	118	0	264	1	83	384	50	9	518	0	105	70	62	4	237	0	67	527	54	1	648	1667
4 Hours TOTAL	0	343	351	509	9	1203	1	336	1690	245	44	2272	1	409	319	272	37	1001	2	264	2016	233	14	2515	6991
Cars	0	341	350	505	9	1196	1	334	1675	244	38	2254	1	402	316	269	25	988	2	263	2006	229	11	2500	6938
Heavy Vehicles	0	2	1	4	0	7	0	2	15	1	6	18	0	7	3	3	12	13	0	1	10	4	3	15	53
Heavy Vehicle %	0.00%	0.58%	0.28%	0.79%	0.00%	0.58%	0.00%	0.60%	0.89%	0.41%	13.64%	0.79%	0.00%	1.71%	0.94%	1.10%	32.43%	1.30%	0.00%	0.38%	0.50%	1.72%	21.43%	0.60%	0.76%

**Base Line Rd & Mills Ave
Claremont California
Saturday, January 27, 2024**

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	18	15	33	1	66	0	13	107	20	5	140	0	30	17	15	2	62	0	15	117	12	1	144	412
11:15 AM	0	31	21	47	3	99	0	26	107	16	4	149	0	32	33	17	5	82	0	21	117	16	1	154	484
11:30 AM	0	18	23	24	1	65	0	17	116	20	0	153	0	20	14	24	6	58	0	19	141	9	4	169	445
11:45 AM	0	22	22	33	0	77	0	28	144	25	1	197	0	21	24	14	5	59	1	15	121	28	2	165	498
Peak Hour Total	0	89	81	137	5	307	0	84	474	81	10	639	0	103	88	70	18	261	1	70	496	65	8	632	1839
PHF	0.000	0.718	0.880	0.729	0.417	0.775	0.000	0.750	0.823	0.810	0.500	0.811	0.000	0.805	0.667	0.729	0.750	0.796	0.250	0.833	0.879	0.580	0.500	0.935	0.923

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
1:00 PM	0	22	28	32	0	82	0	18	115	19	1	152	0	26	25	15	0	66	0	14	119	9	1	142	442
1:15 PM	0	25	23	33	1	81	0	28	89	16	1	133	0	29	19	23	4	71	1	22	126	17	0	166	451
1:30 PM	0	15	24	27	1	66	0	17	97	15	5	129	0	24	19	14	1	57	0	9	133	20	1	162	414
1:45 PM	0	22	38	36	2	96	0	18	98	15	4	131	0	17	20	16	0	53	0	16	138	14	0	168	448
Peak Hour Total	0	84	113	128	4	325	0	81	399	65	11	545	0	96	83	68	5	247	1	61	516	60	2	638	1755
PHF	0.000	0.840	0.743	0.889	0.500	0.846	0.000	0.723	0.867	0.855	0.550	0.896	0.000	0.828	0.830	0.739	0.313	0.870	0.250	0.693	0.935	0.750	0.500	0.949	0.973

Total Vehicles On Leg	2031
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
1203			828		
Southbound					
Cars	505	350	341	0	9
Heavy	4	1	2	0	0
Total	509	351	343	0	9



Total Vehicles on Leg 5125	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	2515		11	3	14
			2	0	2
	Vehicles Exiting Intersection		263	1	264
	2610		2006	10	2016
			229	4	233



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 4904
244	1	245		2272	
1675	15	1690			
334	2	336		Vehicles Exiting Intersection	
1	0	1		2632	
38	6	44			



4 Hour Volumes

Cars	25	1	402	316	269
Heavy	12	0	7	3	3
Total	37	1	409	319	272
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
1001			921		
Total Vehicles On Leg			1922		



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Thu, Apr 13, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

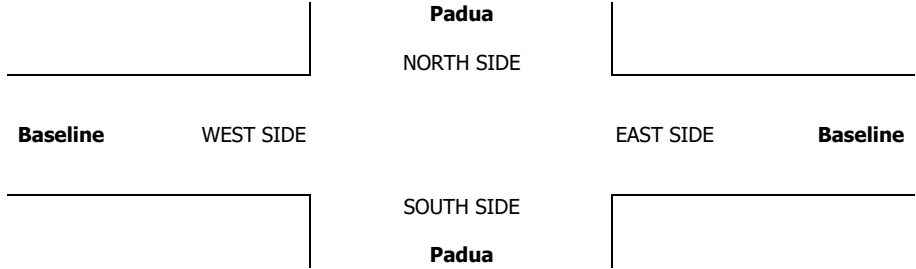
Claremont
Padua
Baseline

PROJECT #: SC3943
LOCATION #: 16
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Padua			Padua			Baseline			Baseline			
	NL 1	NT 1	NR 1	SL 1	ST 1.5	SR 0.5	EL 1	ET 2	ER 1	WL 2	WT 2	WR 1	

AM	7:00 AM	27	8	62	13	10	4	2	46	16	86	205	13	492
	7:15 AM	43	9	85	27	26	16	7	86	25	109	206	24	663
	7:30 AM	49	11	108	22	16	16	1	75	23	115	207	20	663
	7:45 AM	61	13	87	27	15	20	2	79	39	121	210	18	692
	8:00 AM	51	17	94	25	21	16	10	102	33	132	208	18	727
	8:15 AM	37	20	72	16	19	18	14	123	51	130	211	29	740
	8:30 AM	47	19	71	37	16	2	8	84	28	122	157	34	625
	8:45 AM	23	11	59	16	22	6	4	84	34	144	154	26	583
	VOLUMES	338	108	638	183	145	98	48	679	249	959	1,558	182	5,185
	APPROACH %	31%	10%	59%	43%	34%	23%	5%	70%	26%	36%	58%	7%	
APP/DEPART	1,084	/	338	426	/	1,352	976	/	1,501	2,699	/	1,994	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	198	61	361	90	71	70	27	379	146	498	836	85	2,822	
APPROACH %	32%	10%	58%	39%	31%	30%	5%	69%	26%	35%	59%	6%		
PEAK HR FACTOR	0.923			0.931			0.734			0.959			0.953	
APP/DEPART	620	/	173	231	/	714	552	/	831	1,419	/	1,104	0	
PM	4:00 PM	25	14	128	19	17	4	10	186	30	115	138	22	708
	4:15 PM	45	17	106	22	28	4	7	173	37	102	96	35	672
	4:30 PM	29	29	134	29	12	8	14	185	31	93	96	42	702
	4:45 PM	32	25	127	18	17	8	15	188	50	122	111	36	749
	5:00 PM	39	29	137	24	16	8	13	194	39	102	118	35	754
	5:15 PM	47	36	141	25	21	16	9	168	42	127	128	28	788
	5:30 PM	25	27	112	17	16	7	16	159	28	129	118	26	680
	5:45 PM	28	30	107	15	11	12	9	171	50	124	127	20	704
	VOLUMES	270	207	992	169	138	67	93	1,424	307	914	932	244	5,757
	APPROACH %	18%	14%	68%	45%	37%	18%	5%	78%	17%	44%	45%	12%	
APP/DEPART	1,469	/	544	374	/	1,359	1,824	/	2,585	2,090	/	1,269	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	147	119	539	96	66	40	51	735	162	444	453	141	2,993	
APPROACH %	18%	15%	67%	48%	33%	20%	5%	78%	17%	43%	44%	14%		
PEAK HR FACTOR	0.898			0.815			0.937			0.917			0.950	
APP/DEPART	805	/	311	202	/	672	948	/	1,370	1,038	/	640	0	

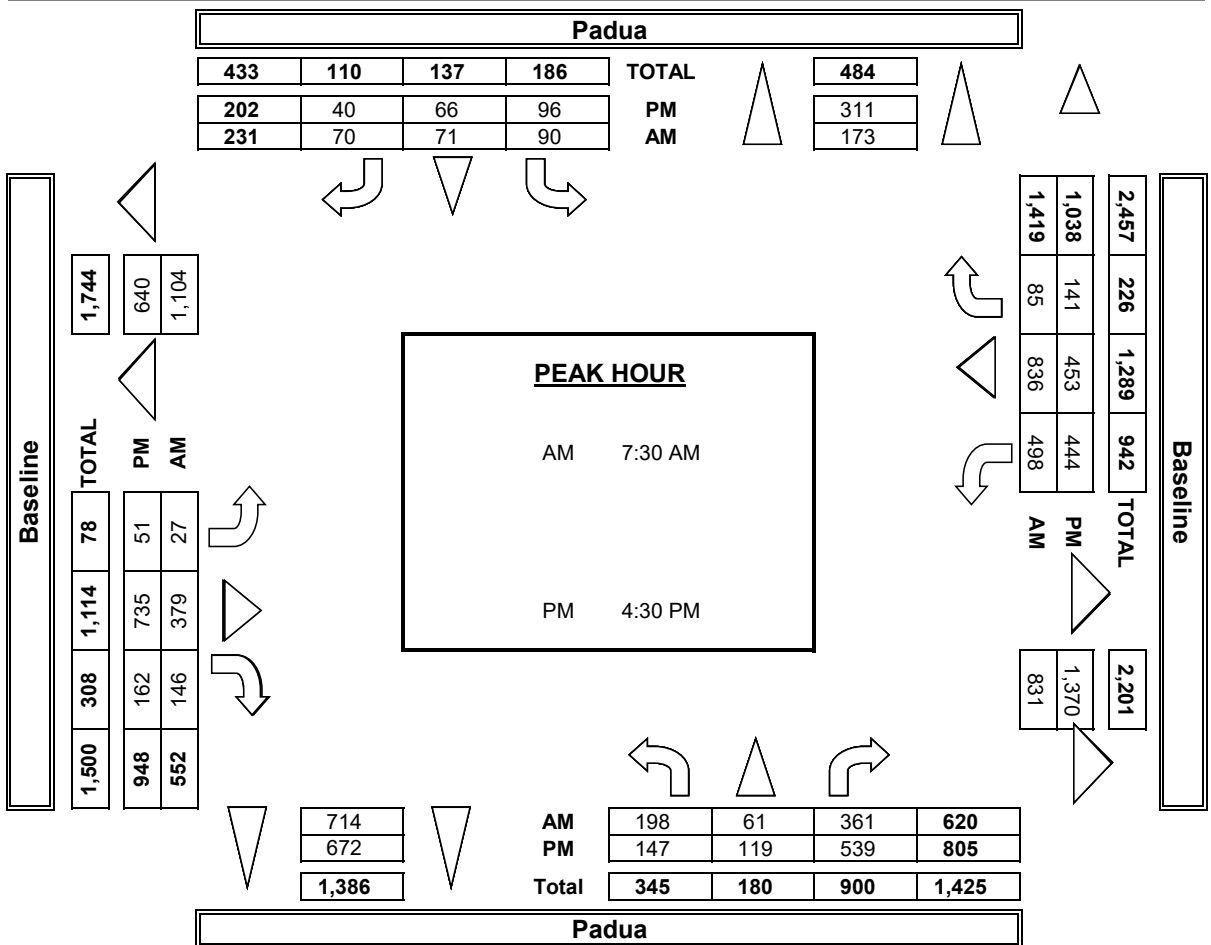
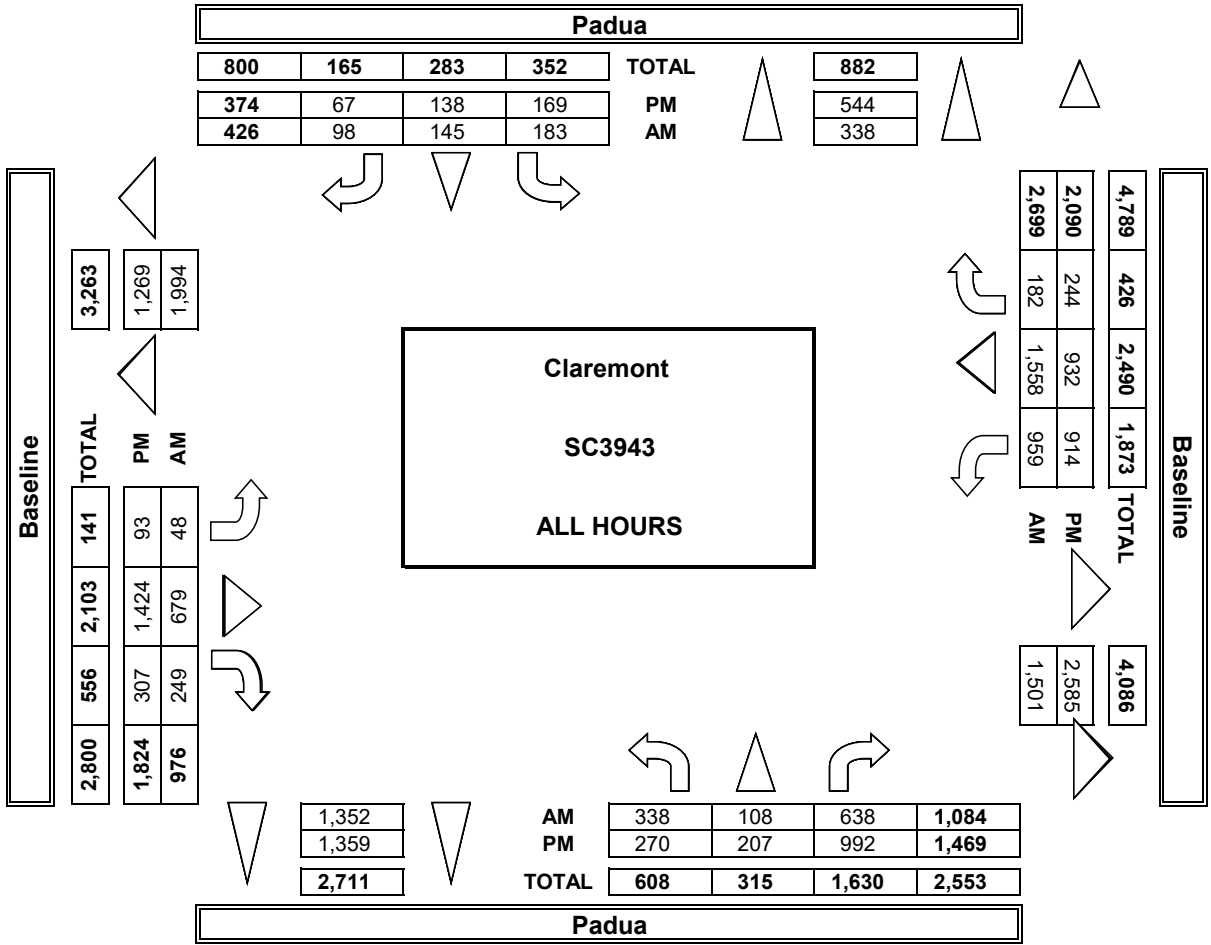


AM	7:00 AM	0	0	0	0	0
	7:15 AM	1	0	0	0	1
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL	1	0	0	0	1	
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	2	0	0	2
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	4	0	2	6
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	1	0	1
	5:45 PM	1	0	0	1	2
TOTAL	1	6	1	3	11	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
1	0	0	0	1
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	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	0
1	0	0	0	1
1	0	0	0	1
1	6	1	3	11

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
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	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	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	0	0	0	0
1	0	0	0	1
1	0	0	0	1
1	6	1	3	11

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Sat, Apr 15, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

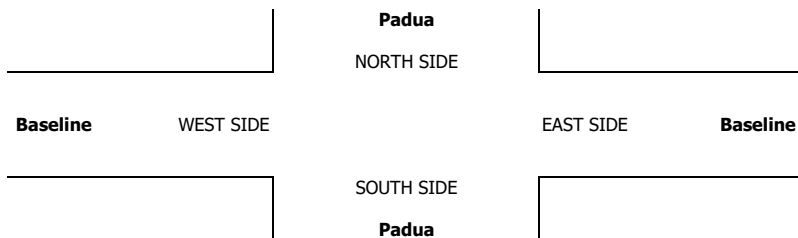
Claremont
Padua
Baseline

PROJECT #: SC3943
LOCATION #: 16
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM	◀ W	N	▶ E
	MD		S	
	OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Padua	Padua	Padua	Padua	Padua	Baseline	Baseline	Baseline	Baseline	Baseline	Baseline		
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	1	1	1.5	0.5	1	2	1	2	2	1	

MD	11:00 AM	22	24	118	37	20	16	3	109	36	108	109	29	631
	11:15 AM	25	17	107	36	26	26	6	114	27	96	105	18	603
	11:30 AM	23	27	103	39	28	24	13	117	35	107	103	39	658
	11:45 AM	35	23	99	37	21	9	8	137	39	122	144	33	707
	12:00 PM	33	22	119	34	20	9	8	128	30	101	118	28	650
	12:15 PM	33	30	118	30	18	7	4	126	35	114	121	30	666
	12:30 PM	27	22	112	26	22	19	7	137	37	106	112	20	647
	12:45 PM	30	28	115	33	19	9	11	127	25	114	109	36	656
	1:00 PM	23	27	103	39	29	13	7	133	32	96	91	25	618
	1:15 PM	35	28	92	33	17	7	14	103	27	97	108	35	596
	1:30 PM	25	26	105	47	22	11	5	128	29	108	129	36	671
	1:45 PM	30	16	121	26	11	7	8	122	25	83	80	32	561
	VOLUMES	341	290	1,312	417	253	157	94	1,481	377	1,252	1,329	361	7,664
	APPROACH %	18%	15%	68%	50%	31%	19%	5%	76%	19%	43%	45%	12%	
	APP/DEPART	1,943	/	745	827	/	1,882	1,952	/	3,210	2,942	/	1,827	0
BEGIN PEAK HR	11:30 AM													
VOLUMES	124	102	439	140	87	49	33	508	139	444	486	130	2,681	
APPROACH %	19%	15%	66%	51%	32%	18%	5%	75%	20%	42%	46%	12%		
PEAK HR FACTOR	0.919			0.758				0.924		0.886			0.948	
APP/DEPART	665	/	265	276	/	670	680	/	1,087	1,060	/	659	0	
PM	02:00 PM	23	21	100	34	17	3	7	120	28	108	117	30	608
	2:15 PM	21	28	118	35	23	5	4	97	24	92	103	43	593
	2:30 PM	26	16	110	40	26	1	10	158	34	82	119	26	648
	2:45 PM	22	24	93	35	25	6	8	123	30	105	80	22	573
	3:00 PM	27	19	112	35	13	6	9	139	25	83	116	31	615
	3:15 PM	28	14	118	31	20	7	7	111	18	93	111	29	587
	3:30 PM	25	17	129	36	17	3	7	157	27	91	122	27	658
	3:45 PM	19	23	141	24	20	10	6	128	28	87	118	28	632
	4:00 PM	26	37	97	36	15	9	10	141	28	87	122	27	635
	4:15 PM	20	22	87	35	22	3	9	141	28	97	113	33	610
	4:30 PM	36	22	85	19	21	5	4	121	31	92	99	24	559
	4:45 PM	20	23	74	31	19	6	6	132	35	83	87	26	542
	VOLUMES	293	266	1,264	391	238	64	87	1,568	336	1,100	1,307	346	7,260
	APPROACH %	16%	15%	69%	56%	34%	9%	4%	79%	17%	40%	47%	13%	
	APP/DEPART	1,823	/	700	693	/	1,676	1,991	/	3,222	2,753	/	1,662	0
BEGIN PEAK HR	3:30 PM													
VOLUMES	90	99	454	131	74	25	32	567	111	362	475	115	2,535	
APPROACH %	14%	15%	71%	57%	32%	11%	5%	80%	16%	38%	50%	12%		
PEAK HR FACTOR	0.878			0.958				0.929		0.979			0.963	
APP/DEPART	643	/	247	230	/	547	710	/	1,151	952	/	590	0	

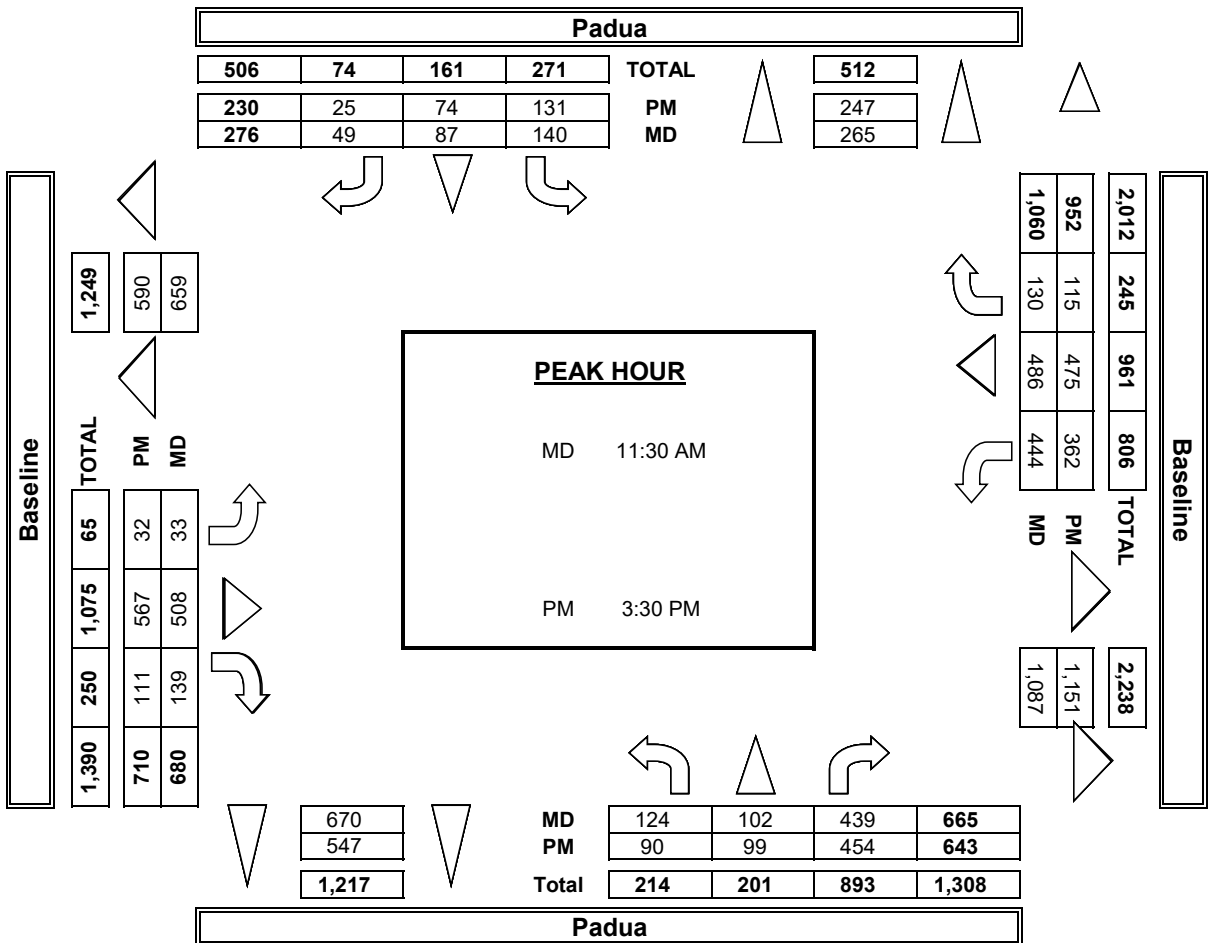
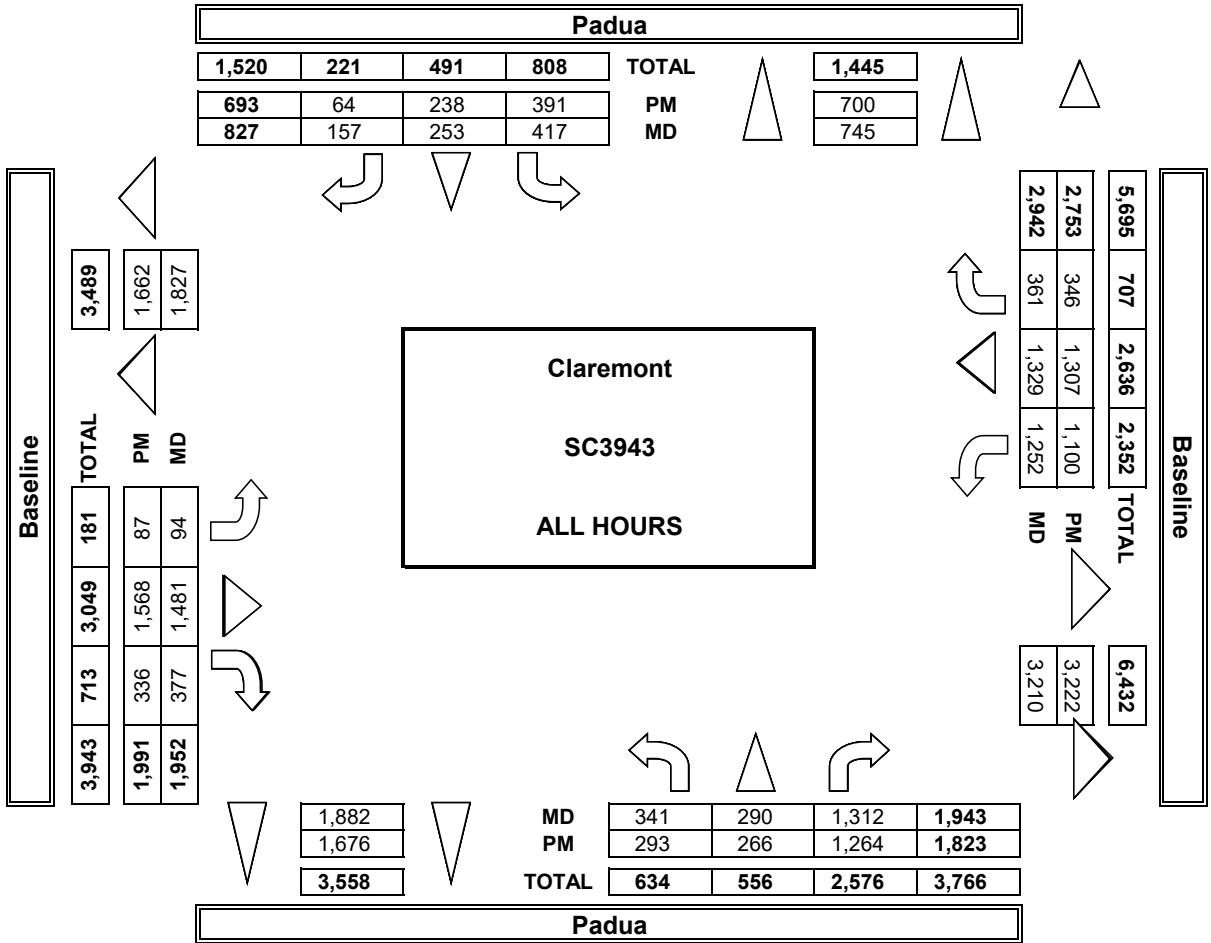


MD	11:00 AM	5	3	1	0	9	
	11:15 AM	1	4	0	0	5	
	11:30 AM	2	6	0	1	9	
	11:45 AM	3	6	0	1	10	
	12:00 PM	5	1	0	0	6	
	12:15 PM	2	4	0	0	6	
	12:30 PM	0	0	1	0	1	
	12:45 PM	1	0	1	0	2	
	1:00 PM	1	1	0	0	2	
	1:15 PM	1	0	0	0	1	
	1:30 PM	0	6	0	0	6	
	1:45 PM	0	3	2	0	5	
	TOTAL	21	34	5	2	62	
	PM	2:00 PM	1	0	0	0	1
		2:15 PM	0	2	0	0	2
2:30 PM		3	1	2	1	7	
2:45 PM		1	1	1	0	3	
3:00 PM		0	1	0	0	1	
3:15 PM		0	1	0	0	1	
3:30 PM		0	2	0	1	3	
3:45 PM		4	1	0	1	6	
4:00 PM		1	0	0	0	1	
4:15 PM		1	1	0	0	2	
4:30 PM		0	1	0	1	2	
4:45 PM		1	2	0	0	3	
TOTAL		12	13	3	4	32	

ALL PED AND BIKE					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
5	3	1	0	9	
1	4	0	0	5	
2	6	0	1	9	
3	6	0	1	10	
5	1	0	0	6	
2	4	0	0	6	
0	0	1	0	1	
1	0	1	0	2	
1	1	0	0	2	
1	0	0	0	1	
0	6	0	0	6	
0	3	2	0	5	
TOTAL	21	34	5	2	62
1	0	0	0	1	
0	2	0	0	2	
3	1	2	1	7	
1	1	1	0	3	
0	1	0	0	1	
0	1	0	0	1	
0	2	0	1	3	
4	1	0	1	6	
1	0	0	0	1	
1	1	0	0	2	
0	1	0	1	2	
1	2	0	0	3	
TOTAL	12	13	3	4	32

PEDESTRIAN CROSSINGS					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	1	1	
0	0	0	0	0	
0	0	0	0	0	
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	
0	0	0	0	0	
0	1	0	1	2	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	1	1	
0	0	0	0	0	
0	0	0	1	1	
0	0	0	0	0	
TOTAL	0	4	0	3	7

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Thu, Apr 13, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

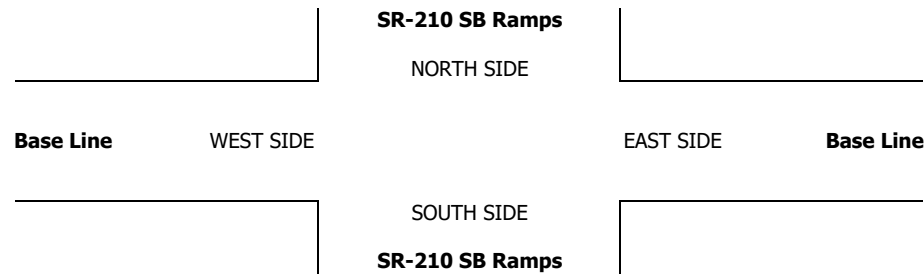
Claremont
SR-210 SB Ramps
Base Line

PROJECT #: SC3943
LOCATION #: 20
CONTROL: SIGNAL

<p>NOTES:</p> <p style="text-align: center; color: blue;">Queue EB</p>	AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼
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LANES:	NORTHBOUND <small>SR-210 SB Ramps</small>			SOUTHBOUND <small>SR-210 SB Ramps</small>			EASTBOUND <small>Base Line</small>			WESTBOUND <small>Base Line</small>			TOTAL
	NL 1	NT X	NR 2	SL 1	ST 0	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	

AM	7:00 AM	17	0	61	6	1	128	12	41	68	8	158	147	647
	7:15 AM	34	0	69	10	0	134	18	74	106	7	171	168	791
	7:30 AM	41	0	84	6	0	109	20	49	136	2	192	195	834
	7:45 AM	26	0	95	9	1	139	22	68	103	14	184	178	839
	8:00 AM	56	0	131	17	1	146	24	51	147	4	156	154	887
	8:15 AM	34	0	105	7	0	142	25	89	92	9	194	110	807
	8:30 AM	40	0	112	19	2	137	27	71	94	16	138	107	763
	8:45 AM	30	0	101	12	2	131	14	67	78	9	163	102	709
	VOLUMES	278	0	758	86	7	1,066	162	510	824	69	1,356	1,161	6,277
	APPROACH %	27%	0%	73%	7%	1%	92%	11%	34%	55%	3%	52%	45%	
APP/DEPART	1,036	/	1,322	1,159	/	900	1,496	/	1,354	2,586	/	2,701	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	157	0	415	39	2	536	91	257	478	29	726	637	3,367	
APPROACH %	27%	0%	73%	7%	0%	93%	11%	31%	58%	2%	52%	46%		
PEAK HR FACTOR	0.765			0.880			0.930			0.895			0.949	
APP/DEPART	572	/	728	577	/	509	826	/	711	1,392	/	1,419	0	
PM	4:00 PM	10	0	178	9	1	116	23	205	102	11	149	68	872
	4:15 PM	6	0	207	15	0	118	22	188	91	0	109	69	825
	4:30 PM	18	0	194	20	0	127	30	216	102	6	101	79	893
	4:45 PM	35	0	190	20	1	126	33	202	98	6	108	88	907
	5:00 PM	34	0	221	16	0	91	35	199	121	8	123	98	946
	5:15 PM	26	0	214	20	0	141	43	175	116	12	116	104	967
	5:30 PM	41	0	211	18	0	120	28	183	77	6	112	80	876
	5:45 PM	35	0	176	18	1	120	28	172	93	4	116	77	840
	VOLUMES	205	0	1,591	136	3	959	242	1,540	800	53	934	663	7,126
	APPROACH %	11%	0%	89%	12%	0%	87%	9%	60%	31%	3%	57%	40%	
APP/DEPART	1,796	/	905	1,098	/	856	2,582	/	3,267	1,650	/	2,098	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	113	0	819	76	1	485	141	792	437	32	448	369	3,713	
APPROACH %	12%	0%	88%	14%	0%	86%	10%	58%	32%	4%	53%	43%		
PEAK HR FACTOR	0.914			0.873			0.965			0.915			0.960	
APP/DEPART	932	/	510	562	/	470	1,370	/	1,687	849	/	1,046	0	

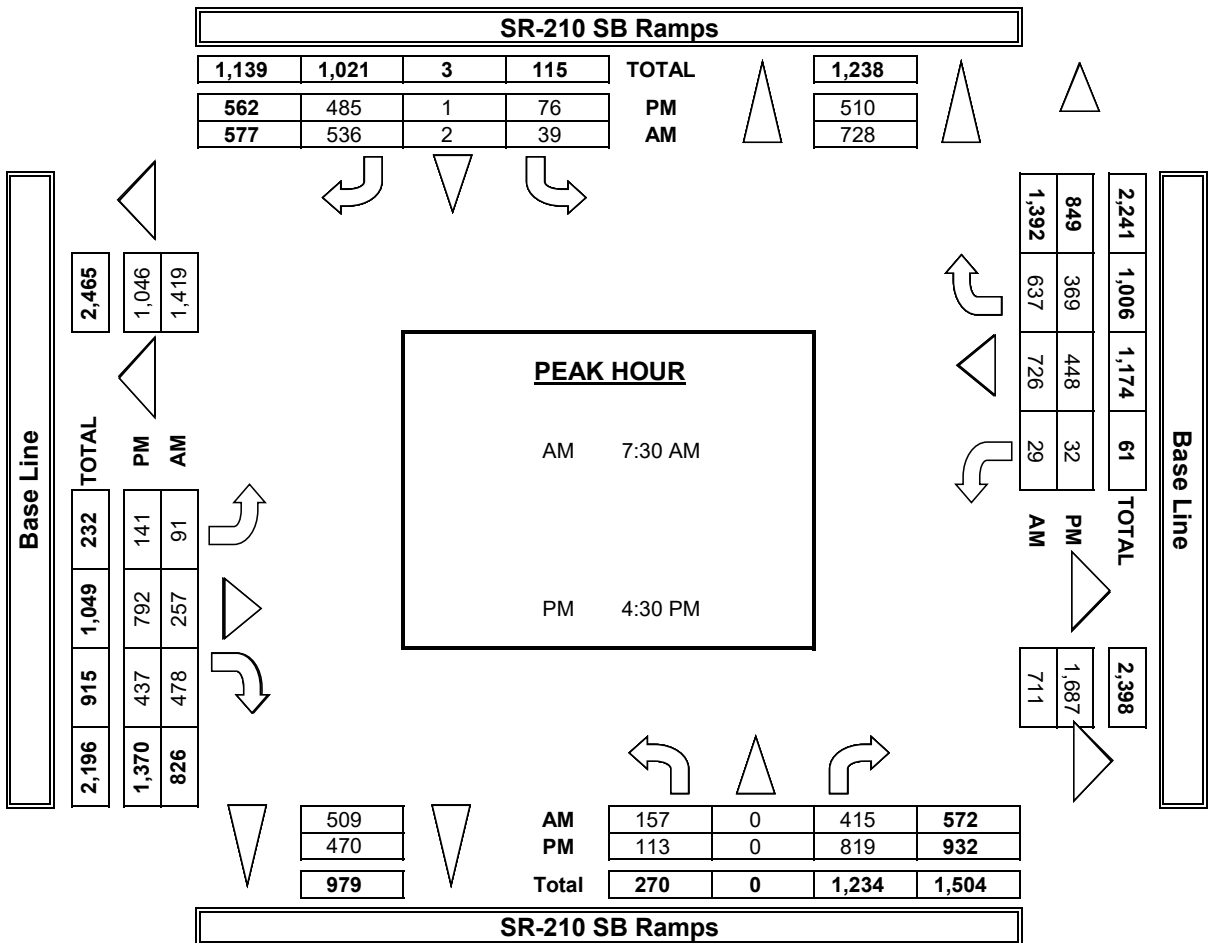
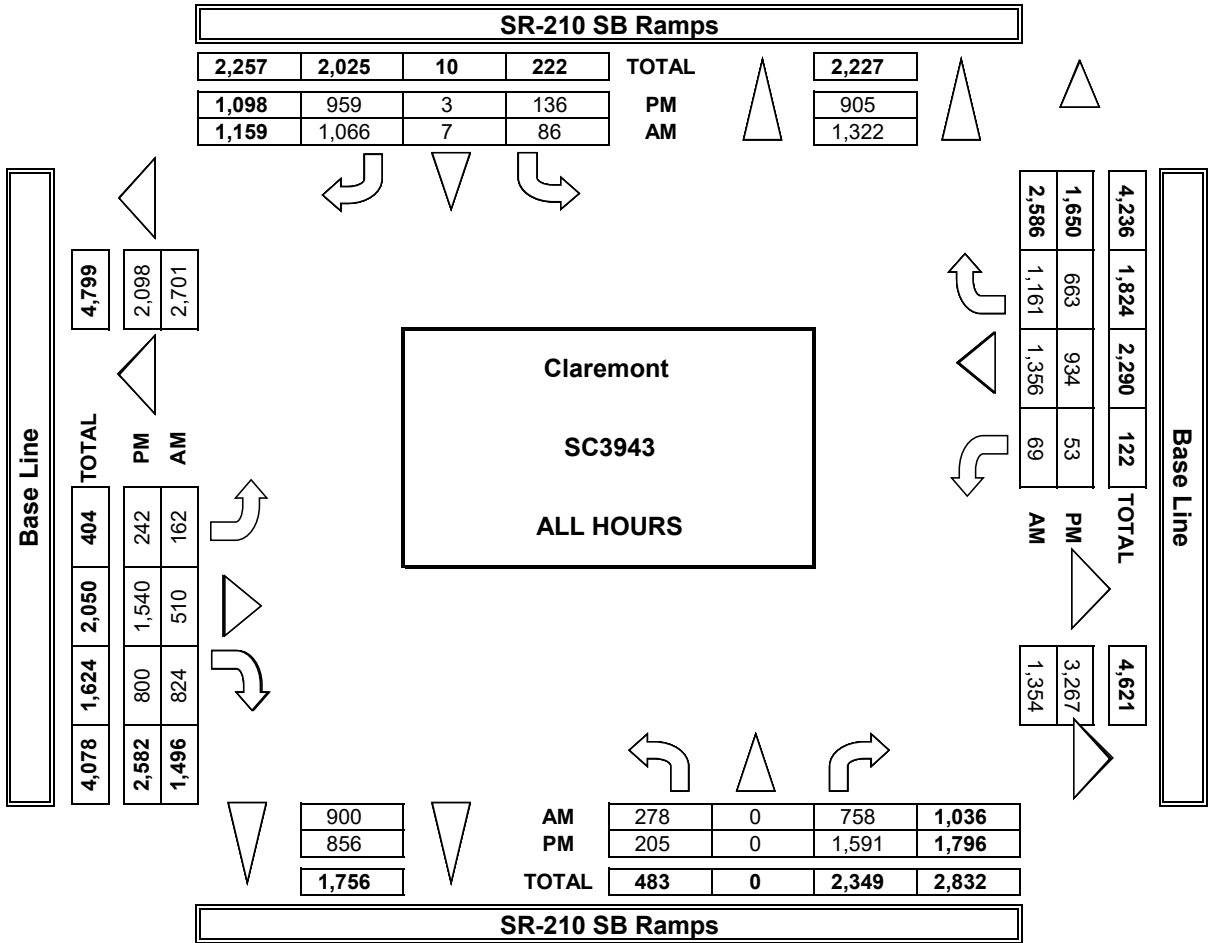


AM	7:00 AM	0	0	0	0	0
	7:15 AM	1	0	0	0	1
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	TOTAL	1	0	0	0	1
	PM	4:00 PM	0	0	0	0
4:15 PM		0	0	0	0	0
4:30 PM		0	0	0	0	0
4:45 PM		0	0	0	0	0
5:00 PM		0	0	0	0	0
5:15 PM		0	4	0	0	4
5:30 PM		0	0	0	0	0
5:45 PM		0	1	0	0	1
TOTAL	0	5	0	0	5	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
1	0	0	0	1
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	0	0	0
0	4	0	0	4
0	0	0	0	0
0	1	0	0	1
0	5	0	0	5

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
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	0	0	0
0	0	0	0	0
0	0	0	0	0
0	4	0	0	4
0	0	0	0	0
0	1	0	0	1
0	5	0	0	5

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

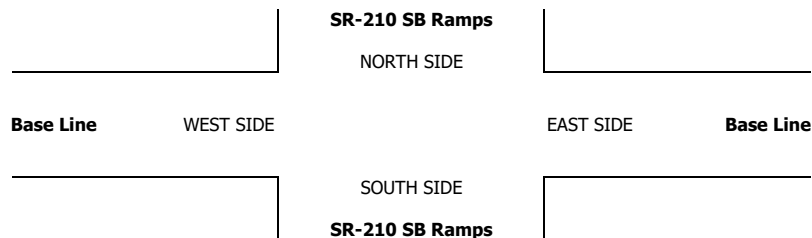
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Sat, Apr 15, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Claremont SR-210 SB Ramps Base Line	PROJECT #: SC3943 LOCATION #: 20 CONTROL: SIGNAL
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NOTES:	AM PM MD OTHER OTHER	◀ W	▲ N ▼ S	E ▶
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	SR-210 SB Ramps			SR-210 SB Ramps			Base Line			Base Line			
LANES:	NL 1	NT X	NR 2	SL 1	ST 0	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	

MD	11:00 AM	34	0	82	12	0	115	33	108	123	12	97	81	697
	11:15 AM	25	0	85	19	0	125	39	112	106	10	69	93	683
	11:30 AM	34	0	104	21	0	125	31	121	107	23	90	85	741
	11:45 AM	49	0	130	22	0	92	21	143	109	16	158	88	828
	12:00 PM	32	0	132	20	3	131	36	147	98	15	95	78	787
	12:15 PM	39	0	104	20	0	101	34	123	117	14	119	84	755
	12:30 PM	41	0	182	22	0	103	24	145	101	16	94	65	793
	12:45 PM	47	0	170	12	0	101	28	155	92	15	111	80	811
	1:00 PM	22	0	169	19	0	100	44	132	99	17	90	89	781
	1:15 PM	29	0	190	14	0	97	30	105	93	7	114	88	767
	1:30 PM	27	0	132	25	0	104	39	123	118	13	142	80	803
	1:45 PM	29	0	131	25	0	89	39	121	109	11	77	66	697
	VOLUMES	408	0	1,611	231	3	1,283	398	1,535	1,272	169	1,256	977	9,143
	APPROACH %	20%	0%	80%	15%	0%	85%	12%	48%	40%	7%	52%	41%	
APP/DEPART	2,019	/	1,377	1,517	/	1,444	3,205	/	3,375	2,402	/	2,947	0	
BEGIN PEAK HR	11:45 AM													
VOLUMES	161	0	548	84	3	427	115	558	425	61	466	315	3,163	
APPROACH %	23%	0%	77%	16%	1%	83%	10%	51%	39%	7%	55%	37%		
PEAK HR FACTOR	0.795			0.834			0.977			0.803			0.955	
APP/DEPART	709	/	430	514	/	489	1,098	/	1,190	842	/	1,054	0	
PM	02:00 PM	33	0	147	19	0	119	34	125	95	20	103	77	772
	2:15 PM	39	0	145	16	1	104	36	95	119	22	95	99	771
	2:30 PM	18	0	136	13	0	103	37	141	125	9	106	87	775
	2:45 PM	21	0	136	11	0	110	32	130	89	20	85	69	703
	3:00 PM	25	0	123	28	0	85	32	138	116	16	120	92	775
	3:15 PM	26	0	104	19	0	109	32	114	114	13	98	79	708
	3:30 PM	32	0	126	17	1	98	41	126	155	11	110	89	806
	3:45 PM	30	0	136	21	0	124	44	122	127	13	79	86	782
	4:00 PM	24	0	183	16	0	99	39	156	78	10	114	66	785
	4:15 PM	30	0	216	18	0	113	36	157	70	12	100	86	838
	4:30 PM	20	0	167	11	0	111	32	130	63	9	84	94	721
	4:45 PM	32	0	195	17	0	83	35	136	66	7	81	65	717
	VOLUMES	330	0	1,814	206	2	1,258	430	1,570	1,217	162	1,175	989	9,153
	APPROACH %	15%	0%	85%	14%	0%	86%	13%	49%	38%	7%	51%	43%	
APP/DEPART	2,144	/	1,419	1,466	/	1,382	3,217	/	3,590	2,326	/	2,762	0	
BEGIN PEAK HR	3:30 PM													
VOLUMES	116	0	661	72	1	434	160	561	430	46	403	327	3,211	
APPROACH %	15%	0%	85%	14%	0%	86%	14%	49%	37%	6%	52%	42%		
PEAK HR FACTOR	0.790			0.874			0.894			0.924			0.958	
APP/DEPART	777	/	487	507	/	478	1,151	/	1,294	776	/	952	0	

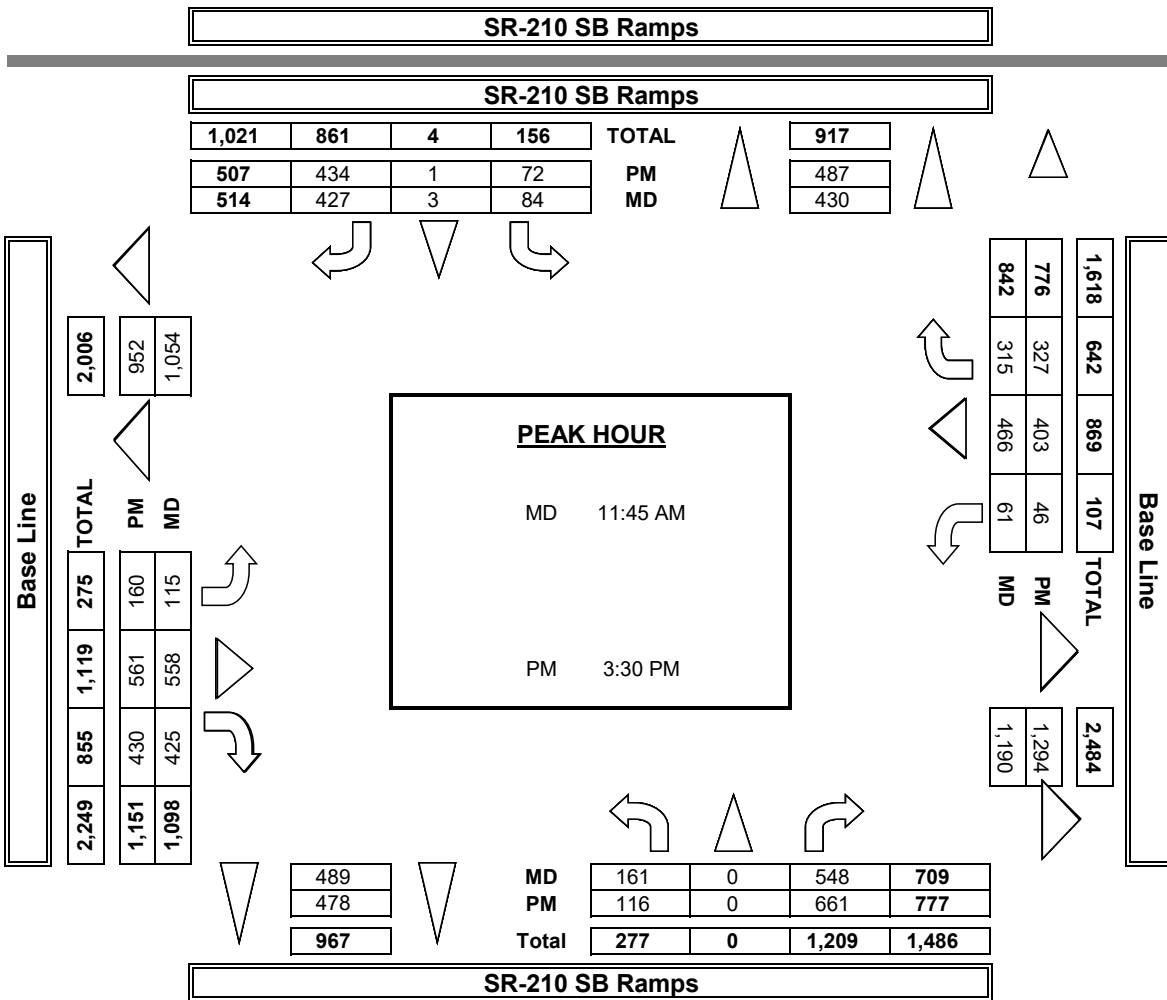
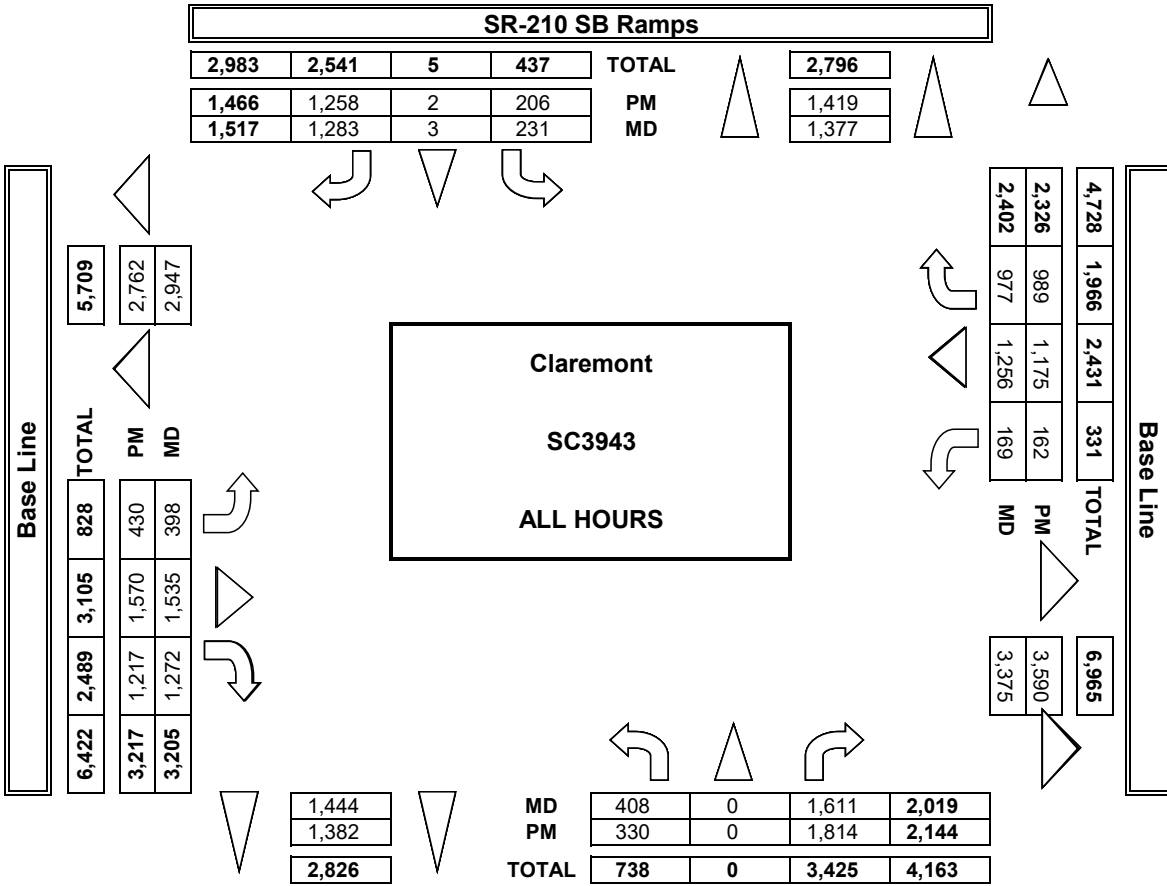


MD	11:00 AM	3	1	0	0	4
	11:15 AM	1	7	0	0	8
	11:30 AM	2	6	0	0	8
	11:45 AM	5	5	0	0	10
	12:00 PM	5	3	0	0	8
	12:15 PM	1	4	0	0	5
	12:30 PM	1	1	0	0	2
	12:45 PM	1	1	0	0	2
	1:00 PM	1	2	0	0	3
	1:15 PM	1	0	0	0	1
	1:30 PM	0	6	0	0	6
	1:45 PM	2	2	0	0	4
	TOTAL	23	38	0	0	61
	PM	2:00 PM	1	2	0	0
2:15 PM		0	0	0	0	0
2:30 PM		1	1	0	0	2
2:45 PM		1	1	0	0	2
3:00 PM		0	1	0	0	1
3:15 PM		1	2	0	0	3
3:30 PM		1	2	0	0	3
3:45 PM		4	2	0	0	6
4:00 PM		2	1	0	0	3
4:15 PM		2	1	0	0	3
4:30 PM		0	2	0	0	2
4:45 PM		1	2	0	0	3
TOTAL		14	17	0	0	31

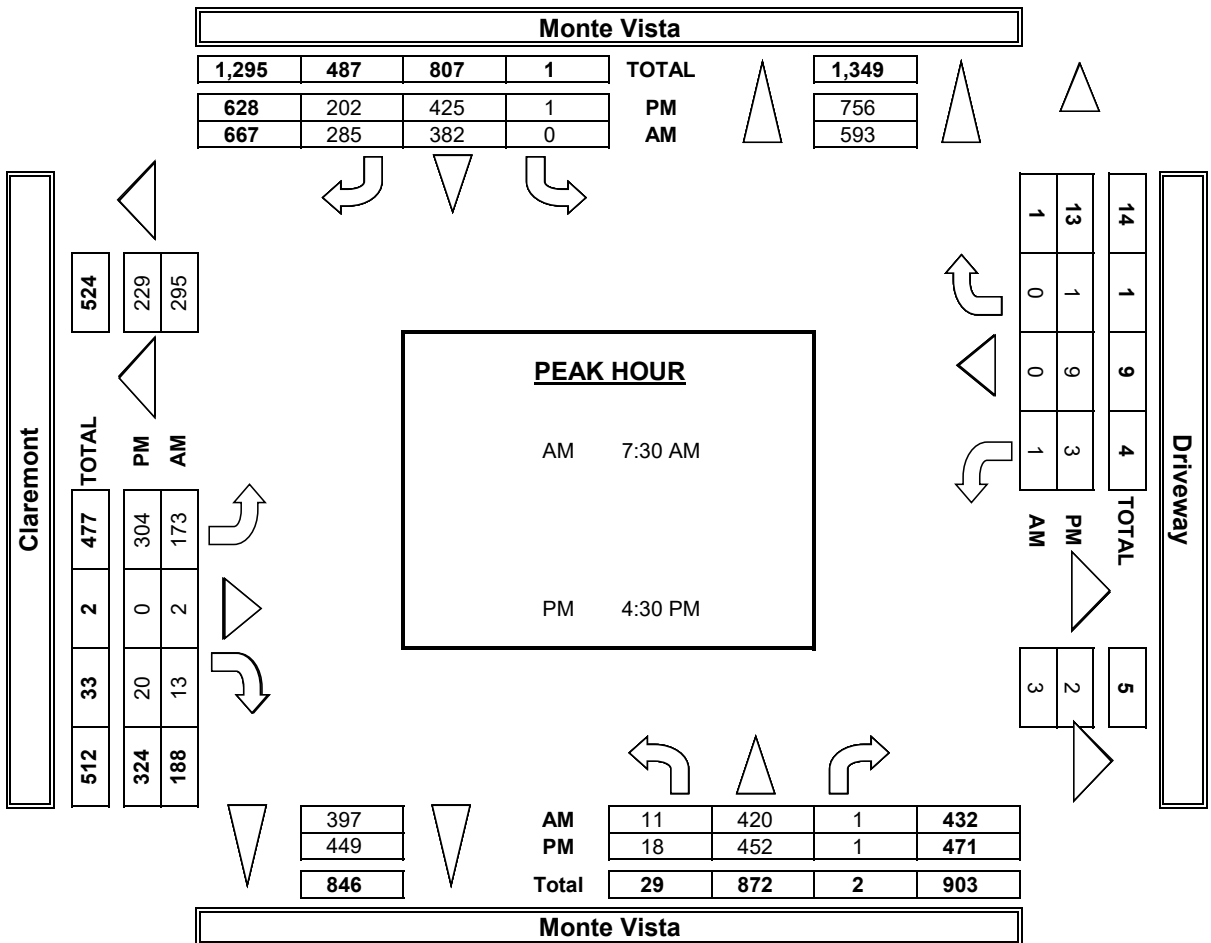
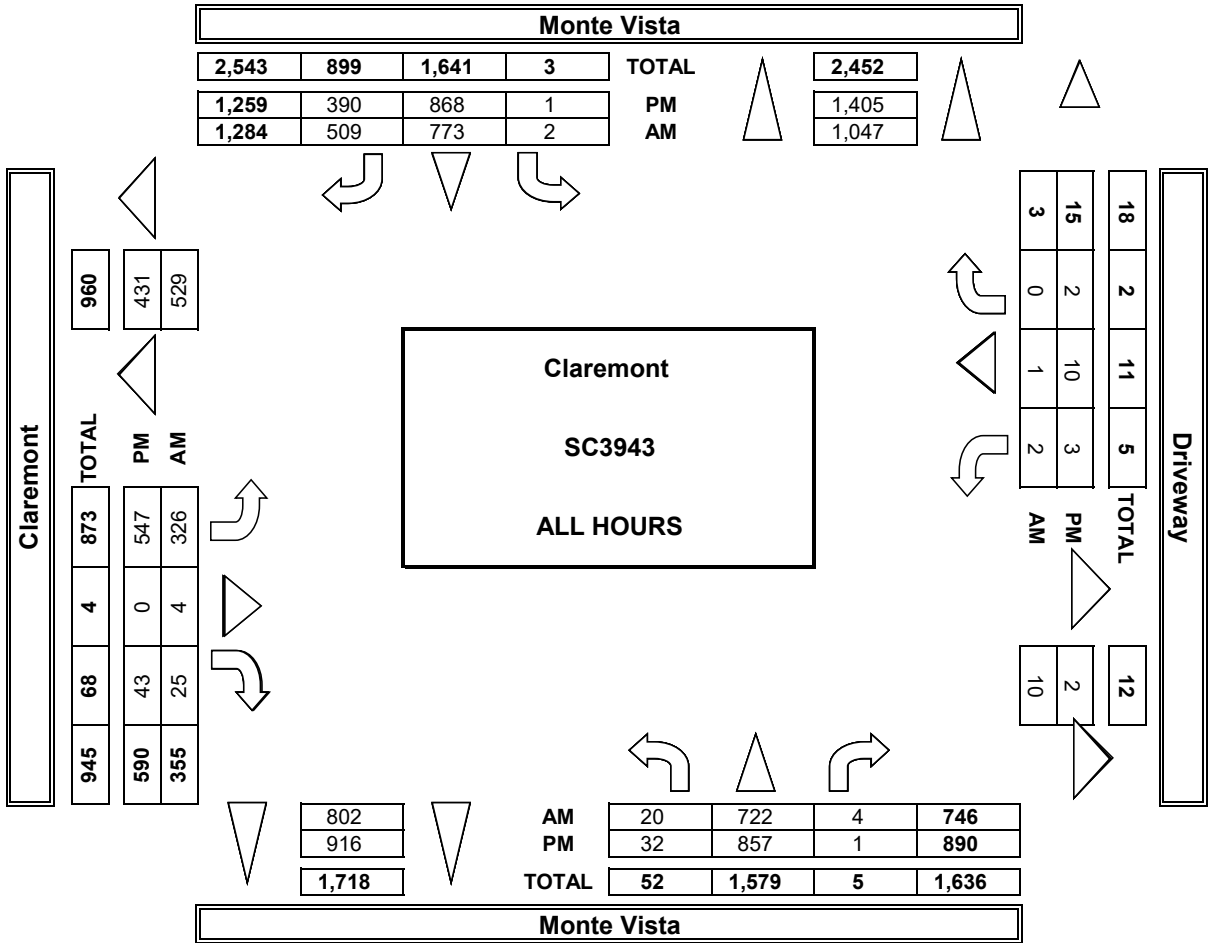
ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
3	1	0	0	4
1	7	0	0	8
2	6	0	0	8
5	5	0	0	10
5	3	0	0	8
1	4	0	0	5
1	1	0	0	2
1	1	0	0	2
1	2	0	0	3
1	0	0	0	1
0	6	0	0	6
2	2	0	0	4
23	38	0	0	61
1	2	0	0	3
0	0	0	0	0
1	1	0	0	2
1	1	0	0	2
0	1	0	0	1
1	2	0	0	3
4	2	0	0	6
2	1	0	0	3
2	1	0	0	3
0	2	0	0	2
1	2	0	0	3
14	17	0	0	31

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
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	1	0	0	1
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	1	0	0	1
0	2	0	0	2
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
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
0	0	0	0	0
0	0	0	0	0
0	3	0	0	3

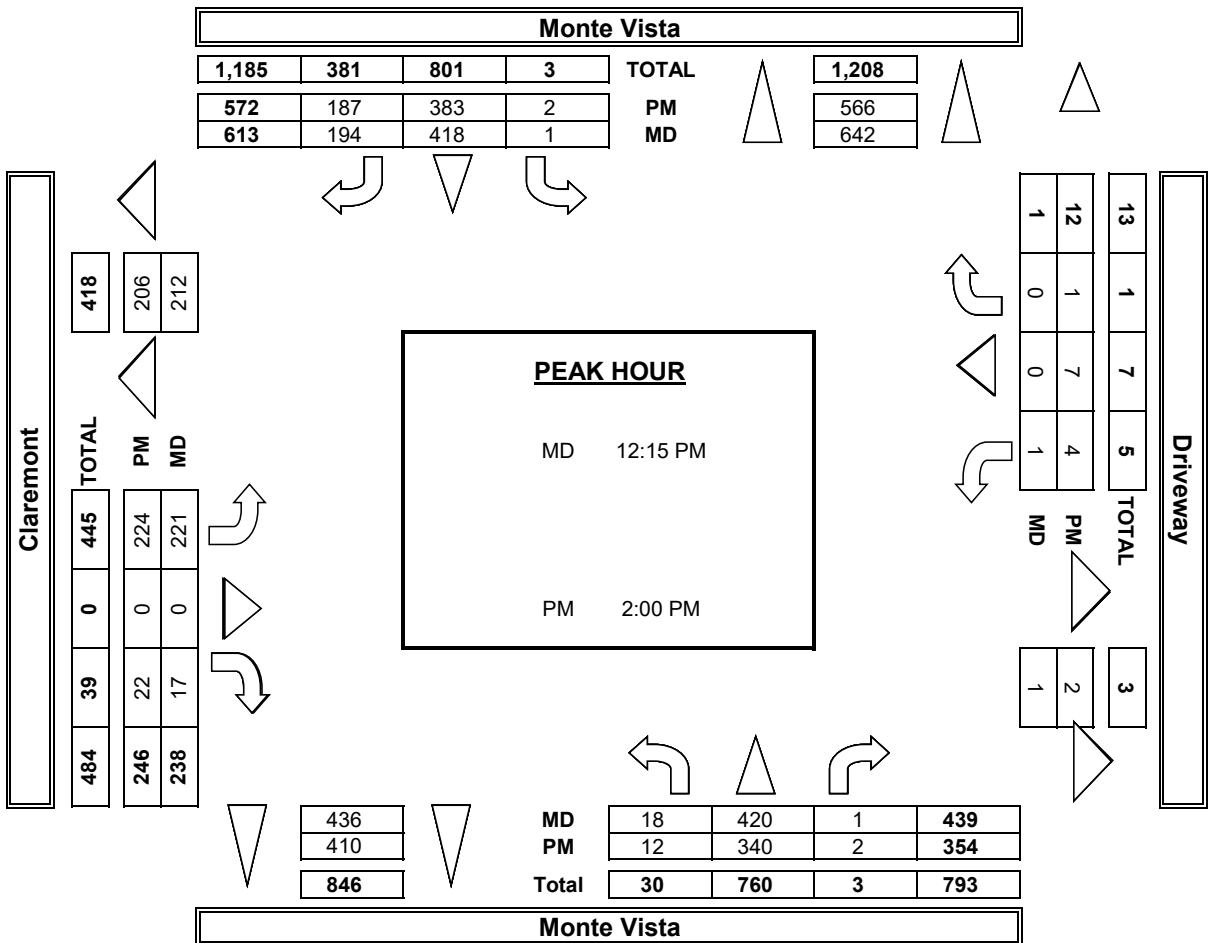
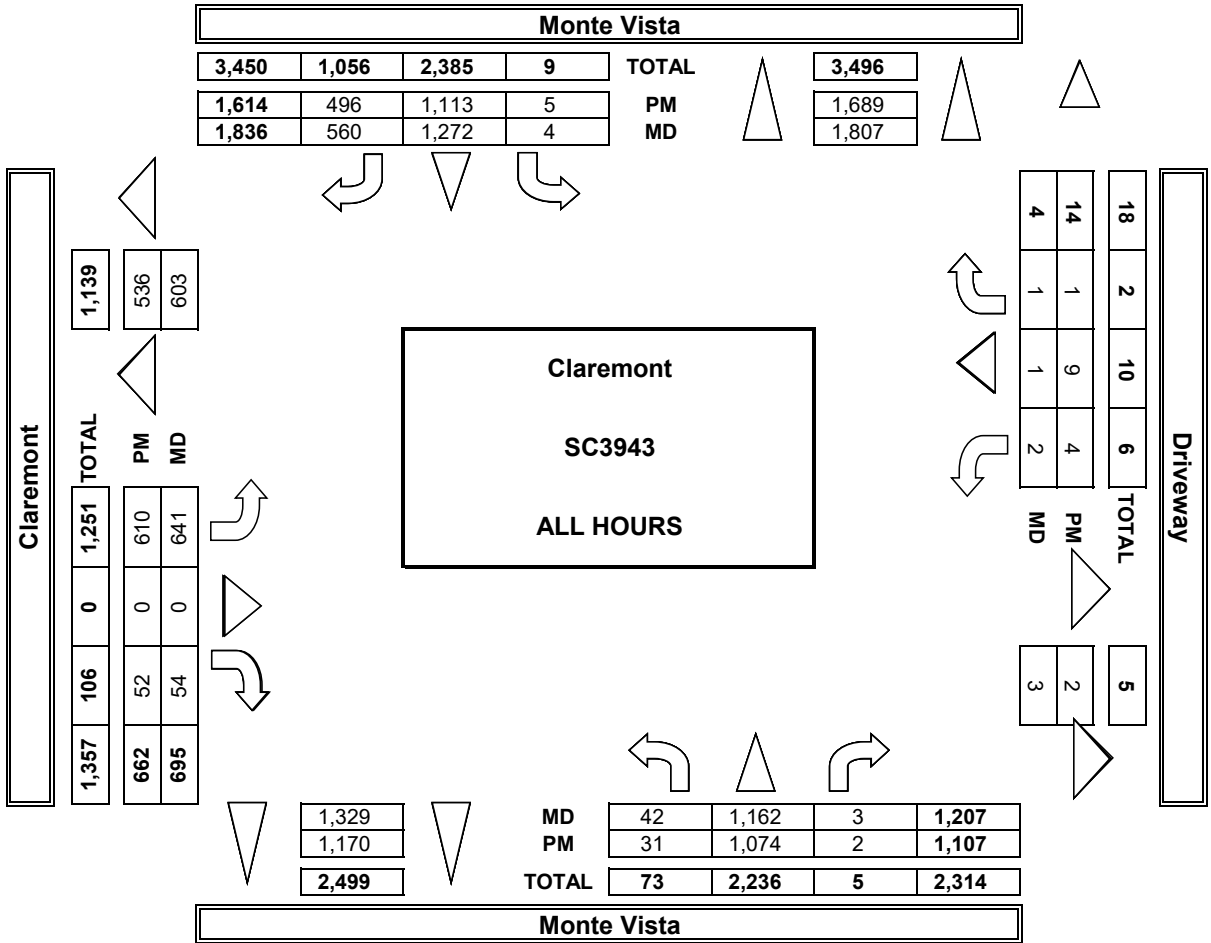
AimTD LLC
TURNING MOVEMENT COUNTS



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TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Thu, Apr 13, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Claremont
Indian Hill
Foothill

PROJECT #: SC3943
LOCATION #: 1
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Indian Hill			Indian Hill			Foothill			Foothill			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1.5	0.5	1	1	1	1	2	0	1	2	1	

AM	7:00 AM	10	42	8	10	42	10	64	11	14	101	24	346	
	7:15 AM	7	75	16	36	80	55	21	45	18	11	113	53	530
	7:30 AM	25	44	15	24	69	31	9	93	23	20	158	18	529
	7:45 AM	37	69	20	30	91	34	19	143	24	16	221	27	731
	8:00 AM	36	107	22	63	96	36	25	152	23	26	196	41	823
	8:15 AM	34	89	19	55	108	56	40	154	30	22	129	46	782
	8:30 AM	23	26	13	39	52	30	8	136	31	25	117	9	509
	8:45 AM	27	37	19	23	46	17	6	125	29	13	128	12	482
	VOLUMES	199	489	132	280	584	269	138	912	189	147	1,163	230	4,732
	APPROACH %	24%	60%	16%	25%	52%	24%	11%	74%	15%	10%	76%	15%	
APP/DEPART	820	/	854	1,133	/	915	1,239	/	1,329	1,540	/	1,634	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	132	309	76	172	364	157	93	542	100	84	704	132	2,865	
APPROACH %	26%	60%	15%	25%	53%	23%	13%	74%	14%	9%	77%	14%		
PEAK HR FACTOR	0.783			0.791			0.820			0.871			0.870	
APP/DEPART	517	/	532	693	/	545	735	/	793	920	/	995	0	
PM	4:00 PM	63	76	38	46	53	20	16	181	19	28	124	15	679
	4:15 PM	53	66	29	31	52	16	11	196	29	22	142	30	677
	4:30 PM	50	61	24	33	53	21	6	209	27	20	145	21	670
	4:45 PM	42	67	29	27	62	19	18	202	28	27	140	22	683
	5:00 PM	49	79	34	44	47	15	10	182	28	28	173	36	725
	5:15 PM	41	79	30	34	63	21	15	163	27	28	184	26	711
	5:30 PM	45	78	32	31	57	23	11	176	18	22	141	31	665
	5:45 PM	45	69	22	32	55	15	13	185	23	31	123	22	635
	VOLUMES	388	575	238	278	442	150	100	1,494	199	206	1,172	203	5,445
	APPROACH %	32%	48%	20%	32%	51%	17%	6%	83%	11%	13%	74%	13%	
APP/DEPART	1,201	/	867	870	/	835	1,793	/	2,022	1,581	/	1,721	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	182	286	117	138	225	76	49	756	110	103	642	105	2,789	
APPROACH %	31%	49%	20%	31%	51%	17%	5%	83%	12%	12%	76%	12%		
PEAK HR FACTOR	0.903			0.930			0.922			0.893			0.962	
APP/DEPART	585	/	434	439	/	432	915	/	1,017	850	/	906	0	

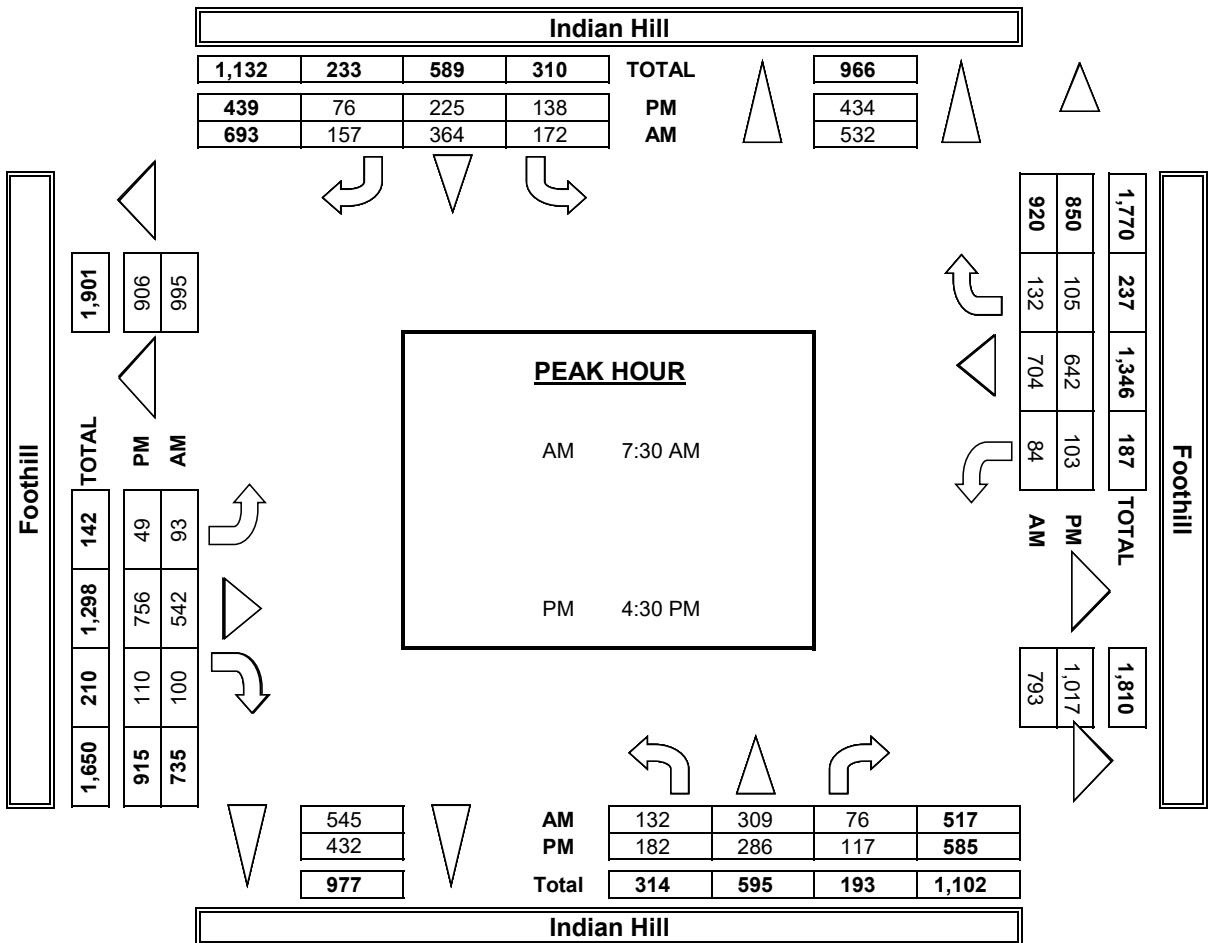
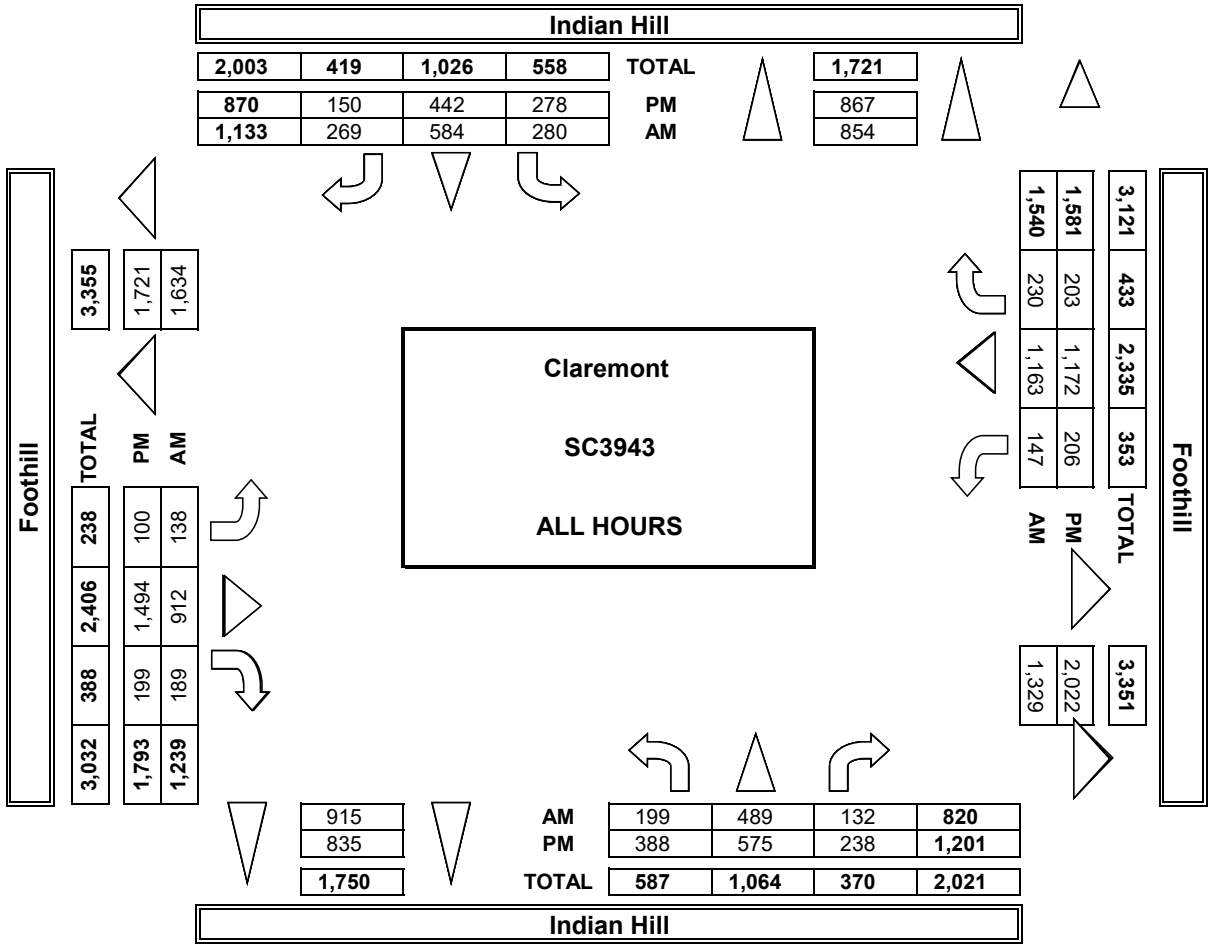


AM	7:00 AM	1	1	1	1	4
	7:15 AM	0	1	3	4	8
	7:30 AM	0	2	2	0	4
	7:45 AM	0	3	4	5	12
	8:00 AM	2	1	5	2	10
	8:15 AM	2	1	2	5	10
	8:30 AM	1	2	0	1	4
	8:45 AM	3	0	2	0	5
TOTAL	9	11	19	18	57	
PM	4:00 PM	3	1	2	5	11
	4:15 PM	5	3	4	5	17
	4:30 PM	2	1	2	2	7
	4:45 PM	4	0	4	5	13
	5:00 PM	4	5	1	5	15
	5:15 PM	4	2	3	3	12
	5:30 PM	3	0	2	11	16
	5:45 PM	0	1	1	2	4
TOTAL	25	13	19	38	95	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	1	1	1	4
0	1	3	4	8
0	2	2	0	4
0	3	4	5	12
2	1	5	2	10
2	1	2	5	10
1	2	0	1	4
3	0	2	0	5
9	11	19	18	57
3	1	2	5	11
5	3	4	5	17
2	1	2	2	7
4	0	4	5	13
4	5	1	5	15
4	2	3	3	12
3	0	2	11	16
0	1	1	2	4
25	13	19	38	95

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	1	1	1	4
0	1	3	4	8
0	2	2	0	4
0	2	3	4	9
2	1	5	1	9
2	0	1	3	6
1	2	0	1	4
3	0	2	0	5
9	9	17	14	49
2	1	2	5	10
4	2	4	5	15
2	0	2	1	5
4	0	4	4	12
3	5	1	4	13
1	2	2	2	7
3	0	2	11	16
0	1	1	1	3
19	11	18	33	81

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Sat, Apr 15, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Claremont
Indian Hill
Foothill

PROJECT #: SC3943
LOCATION #: 1
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM	◀ W	N	▶ E
	MD		S	
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Indian Hill	Indian Hill	Indian Hill	Foothill	Foothill	Foothill	Foothill	Foothill	Foothill	Foothill			
	NL 1	NT 1.5	NR 0.5	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	

MD	11:00 AM	33	39	22	12	46	16	15	146	26	37	136	28	556
	11:15 AM	43	54	21	17	50	9	11	150	23	28	142	22	570
	11:30 AM	39	44	24	27	58	16	18	120	32	31	136	22	567
	11:45 AM	50	60	37	23	62	21	10	159	32	31	154	26	665
	12:00 PM	34	75	37	27	58	14	16	124	38	47	154	25	649
	12:15 PM	45	61	27	34	63	20	17	146	33	29	138	11	624
	12:30 PM	44	58	35	38	44	10	13	160	27	31	160	18	638
	12:45 PM	44	58	38	38	38	15	13	167	36	21	167	13	648
	1:00 PM	52	54	27	41	51	15	20	160	29	26	149	31	655
	1:15 PM	39	57	35	30	59	21	14	153	27	26	146	18	625
1:30 PM	49	64	30	23	38	13	14	157	29	29	135	18	599	
1:45 PM	42	52	29	24	38	16	19	136	29	22	155	28	590	
VOLUMES	514	676	362	334	605	186	180	1,778	361	358	1,772	260	7,386	
APPROACH %	33%	44%	23%	30%	54%	17%	8%	77%	16%	15%	74%	11%		
APP/DEPART	1,552	/	1,091	1,125	/	1,307	2,319	/	2,491	2,390	/	2,497	0	
BEGIN PEAK HR	11:45 AM													
VOLUMES	173	254	136	122	227	65	56	589	130	138	606	80	2,576	
APPROACH %	31%	45%	24%	29%	55%	16%	7%	76%	17%	17%	74%	10%		
PEAK HR FACTOR	0.957			0.885			0.964			0.912			0.968	
APP/DEPART	563	/	381	414	/	485	775	/	857	824	/	853	0	
PM	02:00 PM	41	64	29	36	33	17	/	142	22	27	169	23	610
	2:15 PM	38	38	27	31	44	14	18	124	25	30	174	22	585
	2:30 PM	46	66	40	25	49	15	9	146	21	31	141	19	608
	2:45 PM	50	53	39	20	46	9	15	136	32	32	127	20	579
	3:00 PM	49	67	35	29	48	7	12	141	35	30	134	12	599
	3:15 PM	52	58	31	24	41	22	14	136	22	25	118	23	566
	3:30 PM	37	66	25	22	43	17	9	143	19	28	129	24	562
	3:45 PM	47	56	24	27	54	13	5	156	29	25	133	29	598
	4:00 PM	40	56	36	33	53	30	13	160	29	28	117	16	611
	4:15 PM	40	54	29	23	46	19	19	135	26	30	133	13	567
4:30 PM	38	56	42	31	59	20	11	150	23	31	136	17	614	
4:45 PM	39	55	24	14	36	28	14	166	24	24	160	11	595	
VOLUMES	517	689	381	315	552	211	146	1,735	307	341	1,671	229	7,094	
APPROACH %	33%	43%	24%	29%	51%	20%	7%	79%	14%	15%	75%	10%		
APP/DEPART	1,587	/	1,040	1,078	/	1,182	2,188	/	2,447	2,241	/	2,425	0	
BEGIN PEAK HR	3:45 PM													
VOLUMES	165	222	131	114	212	82	48	601	107	114	519	75	2,390	
APPROACH %	32%	43%	25%	28%	52%	20%	6%	79%	14%	16%	73%	11%		
PEAK HR FACTOR	0.952			0.879			0.936			0.947			0.973	
APP/DEPART	518	/	339	408	/	426	756	/	851	708	/	774	0	

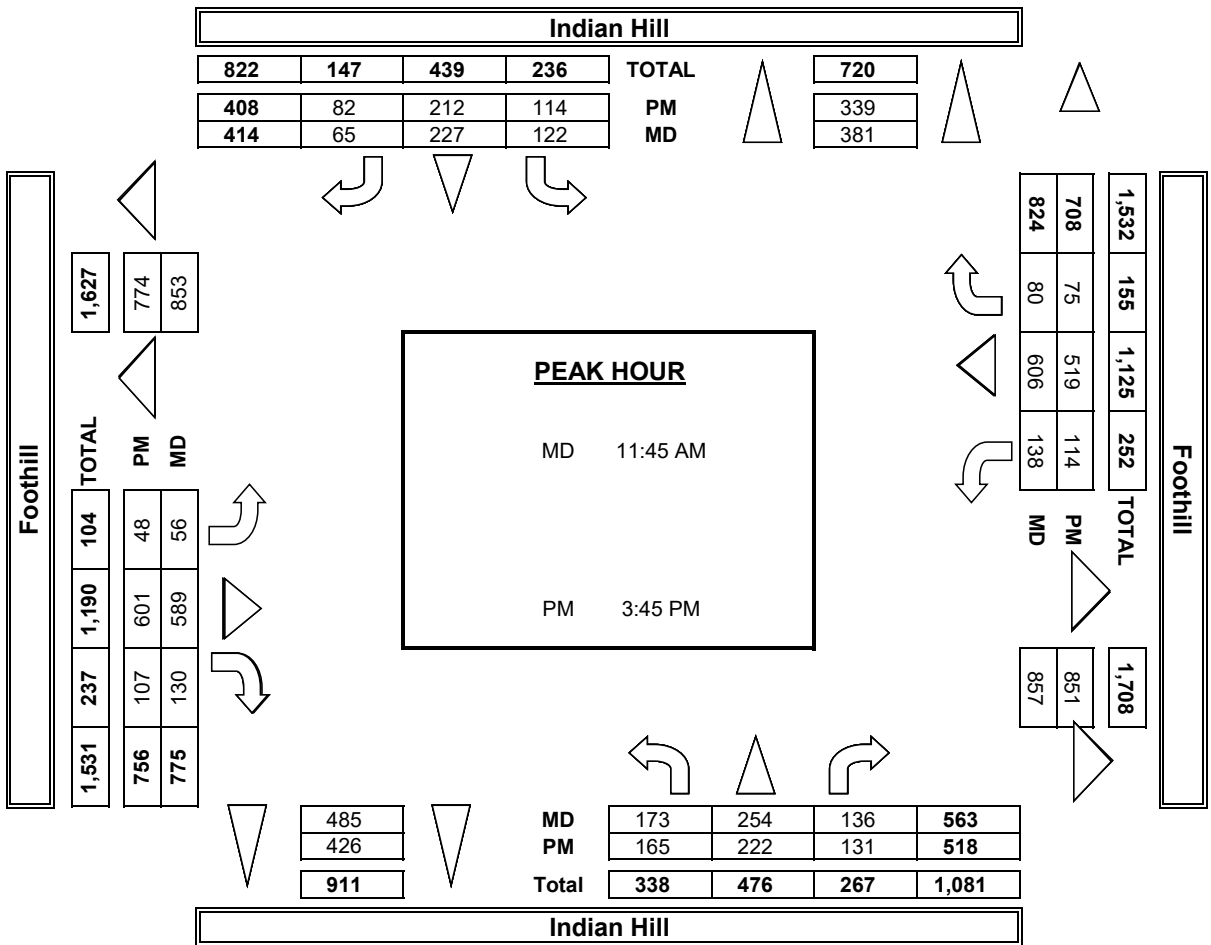
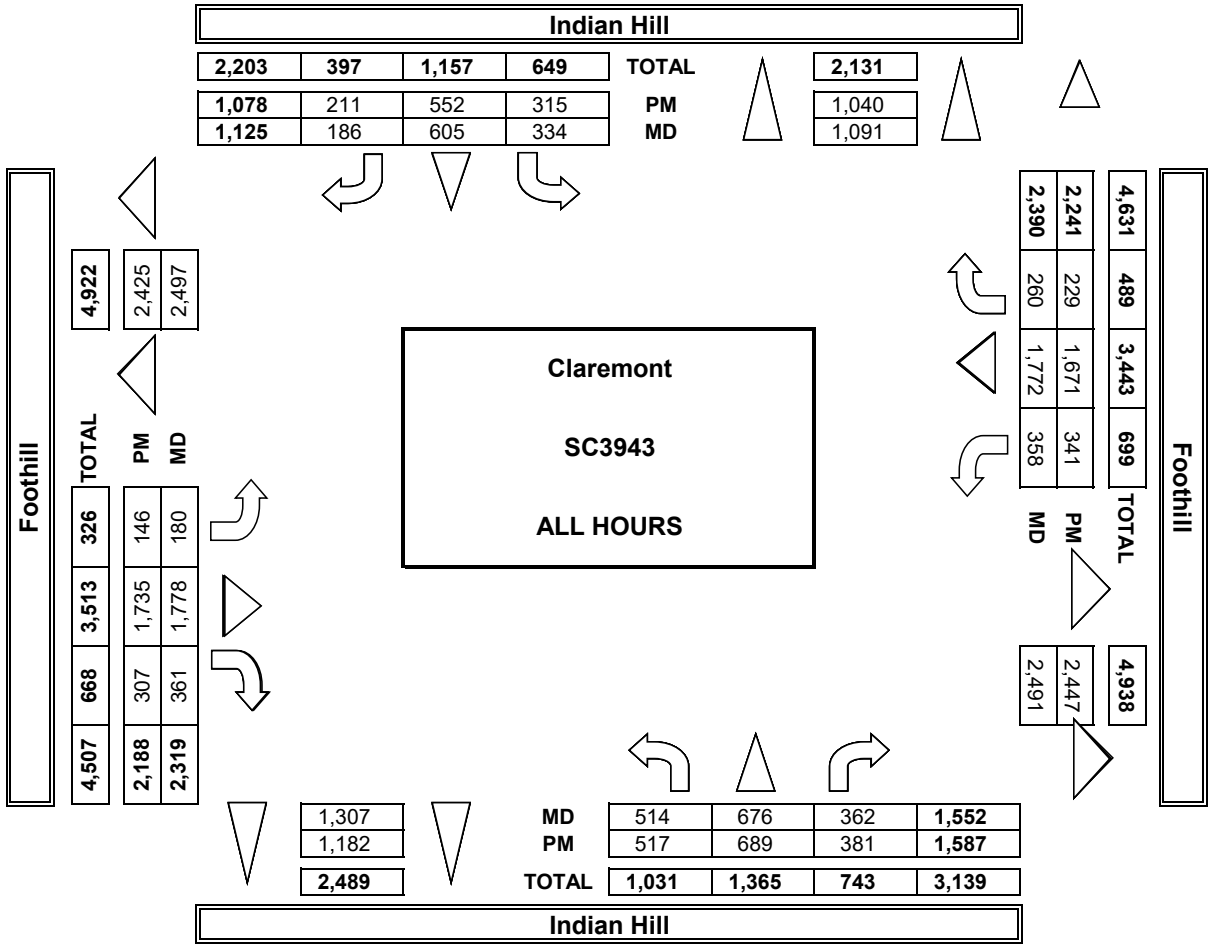


MD	11:00 AM	1	2	2	0	5
	11:15 AM	0	3	3	3	9
	11:30 AM	2	2	3	3	10
	11:45 AM	5	2	3	0	10
	12:00 PM	2	1	3	5	11
	12:15 PM	3	1	3	5	12
	12:30 PM	7	4	1	4	16
	12:45 PM	6	2	3	3	14
	1:00 PM	3	15	5	12	35
	1:15 PM	2	6	3	10	21
PM	2:00 PM	1	0	1	3	5
	2:15 PM	5	4	2	5	16
	2:30 PM	1	3	0	8	12
	2:45 PM	1	4	1	12	18
	3:00 PM	5	0	4	3	12
	3:15 PM	5	3	4	10	22
	3:30 PM	3	2	0	6	11
	3:45 PM	2	4	0	6	12
	4:00 PM	4	7	3	8	22
	4:15 PM	2	0	3	2	7
4:30 PM	3	3	1	8	15	
4:45 PM	2	2	1	5	10	
TOTAL	39	43	31	58	171	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	2	2	0	5
0	3	3	3	9
2	2	3	3	10
5	2	3	0	10
2	1	3	5	11
3	1	3	5	12
7	4	1	4	16
6	2	3	3	14
3	15	5	12	35
2	6	3	10	21
4	1	0	4	9
4	4	2	9	19
39	43	31	58	171
1	0	1	3	5
5	4	2	5	16
1	3	0	8	12
1	4	1	12	18
5	0	4	3	12
5	3	4	10	22
3	2	0	6	11
2	4	0	6	12
4	7	3	8	22
2	0	3	2	7
3	3	1	8	15
2	2	1	5	10
34	32	20	76	162

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	1	2	0	4
0	2	2	3	7
1	1	3	2	7
4	0	2	0	6
2	1	3	4	10
2	1	3	5	11
6	3	1	4	14
6	1	2	3	12
3	14	5	12	34
1	6	3	10	20
1	0	0	2	3
2	4	2	9	17
29	34	28	54	145
1	0	1	3	5
3	3	2	4	12
1	3	0	8	12
1	3	1	8	13
5	0	4	3	12
3	3	4	8	18
2	2	0	5	9
1	3	0	6	10
0	5	0	5	10
2	0	3	2	7
2	3	1	8	14
2	1	1	4	8
23	26	17	64	130

AimTD LLC
TURNING MOVEMENT COUNTS



**Foothill Blvd & College Ave
Claremont california
Thursday, January 25, 2024**

Time	Southbound College Ave						Westbound Foothill Blvd						Northbound College Ave						Eastbound Foothill Blvd						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:00 AM	0	0	0	0	0	0	0	11	142	0	0	153	0	0	0	6	1	6	1	1	69	6	0	77	236
7:15 AM	0	0	0	0	0	0	0	14	177	0	0	191	0	0	0	12	1	12	0	1	97	8	0	106	309
7:30 AM	0	0	0	0	0	0	0	19	225	2	2	246	0	0	0	12	3	12	0	5	114	7	2	126	384
7:45 AM	0	0	0	3	0	3	0	33	309	3	0	345	0	0	0	23	0	23	0	3	174	26	0	203	574
Hourly Total	0	0	0	3	0	3	0	77	853	5	2	935	0	0	0	53	5	53	1	10	454	47	2	512	1503
8:00 AM	0	0	0	3	0	3	0	43	299	2	0	344	0	0	0	28	0	28	3	2	199	16	0	220	595
8:15 AM	0	0	0	0	0	0	0	23	239	3	0	265	1	0	0	24	1	25	2	5	226	22	0	255	545
8:30 AM	0	0	0	2	0	2	0	24	178	2	0	204	0	0	0	14	0	14	0	6	172	13	0	191	411
8:45 AM	0	0	0	0	1	0	0	18	188	5	0	211	0	0	0	10	0	10	1	2	167	14	0	184	405
Hourly Total	0	0	0	5	1	5	0	108	904	12	0	1024	1	0	0	76	1	77	6	15	764	65	0	850	1956
4:00 PM	0	0	0	7	2	7	0	20	218	1	0	239	0	0	0	40	2	40	4	0	268	13	0	285	571
4:15 PM	0	0	0	7	1	7	0	14	204	4	0	222	0	0	0	36	4	36	0	0	243	12	0	255	520
4:30 PM	0	0	0	4	0	4	0	20	176	1	0	197	0	0	0	33	6	33	5	5	227	16	0	253	487
4:45 PM	0	0	0	9	1	9	0	18	194	1	0	213	0	0	0	34	8	34	0	2	234	14	0	250	506
Hourly Total	0	0	0	27	4	27	0	72	792	7	0	871	0	0	0	143	20	143	9	7	972	55	0	1043	2084
5:00 PM	0	0	0	8	2	8	0	17	239	0	0	256	0	0	0	42	15	42	4	1	293	12	0	310	616
5:15 PM	0	0	0	3	1	3	0	21	230	2	0	253	0	0	0	26	2	26	2	4	231	19	0	256	538
5:30 PM	0	0	0	7	0	7	1	14	201	2	0	218	0	0	0	20	2	20	6	2	240	12	0	260	505
5:45 PM	0	0	0	6	0	6	0	18	203	0	0	221	0	0	0	34	0	34	6	4	212	18	0	240	501
Hourly Total	0	0	0	24	3	24	1	70	873	4	0	948	0	0	0	122	19	122	18	11	976	61	0	1066	2160
4 Hours TOTAL	0	0	0	59	8	59	1	327	3422	28	2	3778	1	0	0	394	45	395	34	43	3166	228	2	3471	7703
Cars	0	0	0	59	8	59	1	325	3361	28	2	3715	1	0	0	386	44	387	34	42	3114	227	2	3417	7578
Heavy Vehicles	0	0	0	0	0	0	0	2	61	0	0	63	0	0	0	8	1	8	0	1	52	1	0	54	125
Heavy Vehicle %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.61%	1.78%	0.00%	0.00%	1.67%	0.00%	0.00%	0.00%	2.03%	2.22%	2.03%	0.00%	2.33%	1.64%	0.44%	0.00%	1.56%	1.62%

**Foothill Blvd & College Ave
Claremont california
Thursday, January 25, 2024
AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:45 AM	0	0	0	3	0	3	0	33	309	3	0	345	0	0	0	23	0	23	0	3	174	26	0	203	574
8:00 AM	0	0	0	3	0	3	0	43	299	2	0	344	0	0	0	28	0	28	3	2	199	16	0	220	595
8:15 AM	0	0	0	0	0	0	0	23	239	3	0	265	1	0	0	24	1	25	2	5	226	22	0	255	545
8:30 AM	0	0	0	2	0	2	0	24	178	2	0	204	0	0	0	14	0	14	0	6	172	13	0	191	411
Peak Hour Total	0	0	0	8	0	8	0	123	1025	10	0	1158	1	0	0	89	1	90	5	16	771	77	0	869	2125
PHF	0.000	0.000	0.000	0.667	0.000	0.667	0.000	0.715	0.829	0.833	0.000	0.839	0.250	0.000	0.000	0.795	0.250	0.804	0.417	0.667	0.853	0.740	0.000	0.852	0.893

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:45 PM	0	0	0	9	1	9	0	18	194	1	0	213	0	0	0	34	8	34	0	2	234	14	0	250	506
5:00 PM	0	0	0	8	2	8	0	17	239	0	0	256	0	0	0	42	15	42	4	1	293	12	0	310	616
5:15 PM	0	0	0	3	1	3	0	21	230	2	0	253	0	0	0	26	2	26	2	4	231	19	0	256	538
5:30 PM	0	0	0	7	0	7	1	14	201	2	0	218	0	0	0	20	2	20	6	2	240	12	0	260	505
Peak Hour Total	0	0	0	27	4	27	1	70	864	5	0	940	0	0	0	122	27	122	12	9	998	57	0	1076	2165
PHF	0.000	0.000	0.000	0.750	0.500	0.750	0.250	0.833	0.904	0.625	0.000	0.918	0.000	0.000	0.000	0.726	0.450	0.726	0.500	0.563	0.852	0.750	0.000	0.868	0.879

Total Vehicles On Leg	130
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Vehicles Entering Intersection		59				Vehicles Exiting Intersection		71			
Southbound											
Cars	59	0	0	0	0	8					
Heavy	0	0	0	0	0	0					
Total	59	0	0	0	0	8					



Total Vehicles on Leg 6986	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	3471		2	0	2
			34	0	34
	Vehicles Exiting Intersection		42	1	43
	3515		3114	52	3166
		227	1	228	



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 7339
28	0	28		3778	
3361	61	3422			
325	2	327		Vehicles Exiting Intersection	
1	0	1		3561	
2	0	2			



4Hour Volumes

Cars	44	1	0	0	386
Heavy	1	0	0	0	8
Total	45	1	0	0	394
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
395			556		
Total Vehicles On Leg			951		



**Foothill Blvd & College Ave
Claremont california
Saturday, January 27, 2024**

Time	Southbound College Ave						Westbound Foothill Blvd						Northbound College Ave						Eastbound Foothill Blvd						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	0	0	16	0	16	1	19	175	1	0	196	0	0	0	25	7	25	1	2	183	16	0	202	439
11:15 AM	0	0	0	6	1	6	0	15	189	0	0	204	0	0	0	29	2	29	4	9	192	14	0	219	458
11:30 AM	0	0	0	12	0	12	0	12	216	7	0	235	0	0	0	24	3	24	3	15	189	12	0	219	490
11:45 AM	0	0	0	11	1	11	0	24	180	3	0	207	0	0	0	24	3	24	3	7	220	12	0	242	484
Hourly Total	0	0	0	45	2	45	1	70	760	11	0	842	0	0	0	102	15	102	11	33	784	54	0	882	1871
12:00 PM	0	0	0	19	0	19	0	19	218	2	0	239	0	0	0	26	1	26	4	7	249	9	0	269	553
12:15 PM	0	0	0	8	2	8	0	15	181	5	0	201	0	0	0	34	4	34	0	4	220	11	0	235	478
12:30 PM	0	0	0	13	1	13	0	13	192	4	1	209	0	0	0	28	5	28	4	9	215	17	0	245	495
12:45 PM	0	0	0	14	1	14	0	19	193	5	0	217	0	0	0	33	8	33	8	7	201	7	0	223	487
Hourly Total	0	0	0	54	4	54	0	66	784	16	1	866	0	0	0	121	18	121	16	27	885	44	0	972	2013
1:00 PM	0	0	0	13	0	13	0	24	173	8	0	205	0	1	0	34	5	35	2	7	241	14	0	264	517
1:15 PM	0	0	0	11	0	11	0	20	171	8	0	199	0	0	0	33	6	33	6	7	219	20	1	252	495
1:30 PM	0	0	0	14	1	14	0	21	194	4	0	219	0	1	0	37	1	38	7	3	206	12	0	228	499
1:45 PM	0	0	0	6	1	6	0	22	204	3	0	229	0	0	0	26	0	26	5	5	240	13	0	263	524
Hourly Total	0	0	0	44	2	44	0	87	742	23	0	852	0	2	0	130	12	132	20	22	906	59	1	1007	2035
2:00 PM	0	0	0	13	1	13	0	16	205	5	0	226	0	0	0	19	1	19	0	6	227	14	0	247	505
2:15 PM	0	0	0	10	1	10	0	17	18	2	0	37	0	0	0	22	1	22	2	3	237	13	0	255	324
2:30 PM	0	0	0	13	2	13	0	15	210	7	0	232	0	0	0	22	1	22	3	4	221	5	0	233	500
2:45 PM	0	0	0	25	1	25	0	25	197	8	0	230	0	0	0	27	4	27	2	6	256	15	0	279	561
Hourly Total	0	0	0	61	5	61	0	73	630	22	0	725	0	0	0	90	7	90	7	19	941	47	0	1014	1890
4 Hours TOTAL	0	0	0	204	13	204	1	296	2916	72	1	3285	0	2	0	443	52	445	54	101	3516	204	1	3875	7809
Cars	0	0	0	203	13	203	1	295	2897	72	1	3265	0	2	0	443	51	445	54	101	3489	204	1	3848	7761
Heavy Vehicles	0	0	0	1	0	1	0	1	19	0	0	20	0	0	0	0	1	0	0	0	27	0	0	27	48
Heavy Vehicle %	0.00%	0.00%	0.00%	0.49%	0.00%	0.49%	0.00%	0.34%	0.65%	0.00%	0.00%	0.61%	0.00%	0.00%	0.00%	0.00%	1.92%	0.00%	0.00%	0.00%	0.77%	0.00%	0.00%	0.70%	0.61%

**Foothill Blvd & College Ave
Claremont california
Saturday, January 27, 2024
AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	0	0	16	0	16	1	19	175	1	0	196	0	0	0	25	7	25	1	2	183	16	0	202	439
11:15 AM	0	0	0	6	1	6	0	15	189	0	0	204	0	0	0	29	2	29	4	9	192	14	0	219	458
11:30 AM	0	0	0	12	0	12	0	12	216	7	0	235	0	0	0	24	3	24	3	15	189	12	0	219	490
11:45 AM	0	0	0	11	1	11	0	24	180	3	0	207	0	0	0	24	3	24	3	7	220	12	0	242	484
Peak Hour Total	0	0	0	45	2	45	1	70	760	11	0	842	0	0	0	102	15	102	11	33	784	54	0	882	1871
PHF	0.000	0.000	0.000	0.703	0.500	0.703	0.250	0.729	0.880	0.393	0.000	0.896	0.000	0.000	0.000	0.879	0.536	0.879	0.688	0.550	0.891	0.844	0.000	0.911	0.955

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
1:00 PM	0	0	0	13	0	13	0	24	173	8	0	205	0	1	0	34	5	35	2	7	241	14	0	264	517
1:15 PM	0	0	0	11	0	11	0	20	171	8	0	199	0	0	0	33	6	33	6	7	219	20	1	252	495
1:30 PM	0	0	0	14	1	14	0	21	194	4	0	219	0	1	0	37	1	38	7	3	206	12	0	228	499
1:45 PM	0	0	0	6	1	6	0	22	204	3	0	229	0	0	0	26	0	26	5	5	240	13	0	263	524
Peak Hour Total	0	0	0	44	2	44	0	87	742	23	0	852	0	2	0	130	12	132	20	22	906	59	1	1007	2035
PHF	0.000	0.000	0.000	0.786	0.500	0.786	0.000	0.906	0.909	0.719	0.000	0.930	0.000	0.500	0.000	0.878	0.500	0.868	0.714	0.786	0.940	0.738	0.250	0.954	0.971

Total Vehicles On Leg	377
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Vehicles Entering Intersection		204		Vehicles Exiting Intersection		173	
Southbound							
Cars	203	0	0	0	0	13	
Heavy	1	0	0	0	0	0	
Total	204	0	0	0	0	13	



Total Vehicles on Leg 7051	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	3875		1	0	1
			54	0	54
	Vehicles Exiting Intersection		101	0	101
	3176		3489	27	3516
			204	0	204



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 7245
72	0	72		3285	
2897	19	2916			
295	1	296		Vehicles Exiting Intersection	
1	0	1		3960	
1	0	1			



4 Hour Volumes

Cars	51	0	2	0	443
Heavy	1	0	0	0	0
Total	52	0	2	0	443
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
445			500		
Total Vehicles On Leg			945		



**Dartmouth Ave and Foothill Blvd-14-0709
Claremonte California
Thursday, December 14, 2023**

Time	Southbound Dartmouth Ave						Westbound Foothill Blvd						Northbound Dartmouth Ave						Eastbound Historic Rte 66						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:00 AM	0	2	0	0	1	2	0	5	164	0	1	169	0	0	1	1	2	2	0	0	85	1	0	86	259
7:15 AM	0	0	0	0	3	0	0	3	211	2	1	216	0	2	0	4	1	6	1	0	137	8	0	146	368
7:30 AM	0	0	0	0	0	0	1	10	273	2	1	286	0	1	1	5	1	7	1	0	144	11	0	156	449
7:45 AM	0	2	2	0	3	4	1	17	354	2	1	374	0	5	0	4	2	9	0	0	186	15	1	201	588
Hourly Total	0	4	2	0	7	6	2	35	1002	6	4	1045	0	8	2	14	6	24	2	0	552	35	1	589	1664
8:00 AM	0	2	2	0	1	4	4	20	306	3	0	333	0	0	1	4	3	5	1	1	219	24	1	245	587
8:15 AM	0	7	3	0	1	10	3	14	220	4	0	241	1	0	1	3	0	5	0	1	242	16	1	259	515
8:30 AM	0	5	6	0	0	11	4	16	195	5	0	220	0	2	2	4	3	8	0	2	142	12	1	156	395
8:45 AM	0	5	4	0	0	9	2	17	193	3	1	215	0	2	2	6	0	10	2	0	169	14	1	185	419
Hourly Total	0	19	15	0	2	34	13	67	914	15	1	1009	1	4	6	17	6	28	3	4	772	66	4	845	1916
4:00 PM	0	6	0	0	1	6	0	8	205	2	0	215	0	13	1	13	5	27	3	1	308	7	1	319	567
4:15 PM	0	6	2	0	5	8	1	7	213	2	1	223	0	12	1	10	1	23	2	1	297	0	1	300	554
4:30 PM	0	6	1	0	3	7	0	7	231	1	0	239	0	16	4	15	4	35	2	0	321	4	2	327	608
4:45 PM	0	4	1	0	0	5	1	9	215	2	1	227	0	7	3	19	1	29	1	0	311	1	1	313	574
Hourly Total	0	22	4	0	9	26	2	31	864	7	2	904	0	48	9	57	11	114	8	2	1237	12	5	1259	2303
5:00 PM	0	10	3	0	2	13	1	6	218	4	4	229	0	32	1	34	5	67	3	1	323	5	4	332	641
5:15 PM	0	5	3	0	2	8	0	3	227	1	1	231	0	14	3	13	3	30	2	1	331	4	1	338	607
5:30 PM	0	8	1	0	6	9	1	6	238	5	2	250	0	16	3	17	1	36	0	1	332	4	0	337	632
5:45 PM	0	6	2	0	3	8	1	4	215	1	3	221	0	7	3	6	2	16	2	0	311	5	1	318	563
Hourly Total	0	29	9	0	13	38	3	19	898	11	10	931	0	69	10	70	11	149	7	3	1297	18	6	1325	2443
4 Hours TOTAL Cars	0	74	30	0	31	104	20	152	3678	39	17	3889	1	129	27	158	34	315	20	9	3858	131	16	4018	8326
Heavy Vehicles	0	68	26	0	27	94	20	152	3623	39	16	3834	1	128	16	151	32	296	20	9	3807	131	13	3967	8191
Heavy Vehicle %	0.00%	8.11%	13.33%	0.00%	12.90%	9.62%	0.00%	0.00%	1.50%	0.00%	5.88%	1.41%	0.00%	0.78%	40.74%	4.43%	5.88%	6.03%	0.00%	0.00%	1.32%	0.00%	18.75%	1.27%	1.62%

**Dartmouth Ave and Foothill Blvd-14-0709
Claremonte California
Thursday, December 14, 2023**

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:30 AM	0	0	0	0	0	0	1	10	273	2	1	286	0	1	1	5	1	7	1	0	144	11	0	156	449
7:45 AM	0	2	2	0	3	4	1	17	354	2	1	374	0	5	0	4	2	9	0	0	186	15	1	201	588
8:00 AM	0	2	2	0	1	4	4	20	306	3	0	333	0	0	1	4	3	5	1	1	219	24	1	245	587
8:15 AM	0	7	3	0	1	10	3	14	220	4	0	241	1	0	1	3	0	5	0	1	242	16	1	259	515
Peak Hour Total	0	11	7	0	5	18	9	61	1153	11	2	1234	1	6	3	16	6	26	2	2	791	66	3	861	2139
PHF	0.000	0.393	0.583	0.000	0.417	0.450	0.563	0.763	0.814	0.688	0.500	0.825	0.250	0.300	0.750	0.800	0.500	0.722	0.500	0.500	0.817	0.688	0.750	0.831	0.909

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:45 PM	0	4	1	0	0	5	1	9	215	2	1	227	0	7	3	19	1	29	1	0	311	1	1	313	574
5:00 PM	0	10	3	0	2	13	1	6	218	4	4	229	0	32	1	34	5	67	3	1	323	5	4	332	641
5:15 PM	0	5	3	0	2	8	0	3	227	1	1	231	0	14	3	13	3	30	2	1	331	4	1	338	607
5:30 PM	0	8	1	0	6	9	1	6	238	5	2	250	0	16	3	17	1	36	0	1	332	4	0	337	632
Peak Hour Total	0	27	8	0	10	35	3	24	898	12	8	937	0	69	10	83	10	162	6	3	1297	14	6	1320	2454
PHF	0.000	0.675	0.667	0.000	0.417	0.673	0.750	0.667	0.943	0.600	0.500	0.937	0.000	0.539	0.833	0.610	0.500	0.604	0.500	0.750	0.977	0.700	0.375	0.976	0.957

Total Vehicles On Leg 179

Vehicles Entering Intersection			Vehicles Exiting Intersection		
104			75		
Southbound					
Cars	0	26	68	0	27
Heavy	0	4	6	0	4
Total	0	30	74	0	31



Total Vehicles on Leg 7845	Vehicles Entering Intersection 4018	Eastbound	Cars	Heavy	Total
			13	3	16
			20	0	20
	Vehicles Exiting Intersection 3827		9	0	9
			3807	51	3858
		131	0	131	



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 3889	Total Vehicles on Leg 7999
39	0	39			
3623	55	3678			
152	0	152			
20	0	20			
16	1	17	Vehicles Exiting Intersection 4110		



4 Hour Volumes

Cars	32	1	128	16	151
Heavy	2	0	1	11	7
Total	34	1	129	27	158
Northbound					
Vehicles Entering Intersection 315			Vehicles Exiting Intersection 314		
Total Vehicles On Leg			629		



**Dartmouth Ave and Foothill Blvd-14-0709
Claremonte California
Saturday, December 16, 2023**

Time	Southbound Dartmouth Ave						Westbound Foothill Blvd						Northbound Dartmouth Ave						Eastbound Historic Rte 66						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	6	2	0	1	8	0	9	231	0	0	240	0	9	0	9	6	18	0	0	179	6	1	185	451
11:15 AM	0	3	2	0	4	5	2	8	186	4	0	200	0	12	3	4	4	19	1	0	202	7	1	210	434
11:30 AM	0	8	0	0	1	8	1	9	204	3	0	217	0	2	1	4	4	7	3	0	232	7	0	242	474
11:45 AM	0	9	4	0	0	13	3	3	210	3	0	219	0	7	1	7	1	15	4	1	250	4	0	259	506
Hourly Total	0	26	8	0	6	34	6	29	831	10	0	876	0	30	5	24	15	59	8	1	863	24	2	896	1865
12:00 PM	0	4	1	0	0	5	0	2	204	4	0	210	0	4	4	5	0	13	1	1	223	2	0	227	455
12:15 PM	0	0	1	0	4	1	1	5	231	1	3	238	0	7	2	5	0	14	2	0	207	7	0	216	469
12:30 PM	0	3	1	0	1	4	0	12	217	1	1	230	0	3	0	6	2	9	2	0	211	3	2	216	459
12:45 PM	0	4	1	0	0	5	0	5	205	0	0	210	0	1	1	4	0	6	4	1	236	6	0	247	468
Hourly Total	0	11	4	0	5	15	1	24	857	6	4	888	0	15	7	20	2	42	9	2	877	18	2	906	1851
1:00 PM	0	2	1	0	0	3	0	4	231	2	0	237	0	4	1	6	0	11	3	0	230	3	0	236	487
1:15 PM	0	1	1	0	0	2	1	8	242	7	0	258	0	3	0	6	0	9	3	0	205	10	0	218	487
1:30 PM	0	0	1	0	0	1	0	15	186	2	0	203	0	5	0	10	0	15	3	2	220	6	0	231	450
1:45 PM	0	3	0	0	0	3	0	6	213	0	0	219	0	1	1	2	1	4	3	1	220	4	0	228	454
Hourly Total	0	6	3	0	0	9	1	33	872	11	0	917	0	13	2	24	1	39	12	3	875	23	0	913	1878
2:00 PM	0	7	2	0	1	9	0	4	208	4	0	216	0	5	1	3	0	9	1	2	209	6	0	218	452
2:15 PM	0	6	0	1	0	7	0	6	193	4	0	203	0	6	1	4	1	11	1	3	246	2	0	252	473
2:30 PM	0	2	1	0	3	3	1	5	199	4	0	209	0	3	2	4	0	9	0	1	207	4	0	212	433
2:45 PM	0	3	1	0	5	4	0	6	175	1	0	182	0	2	1	4	1	7	1	0	210	1	0	212	405
Hourly Total	0	18	4	1	9	23	1	21	775	13	0	810	0	16	5	15	2	36	3	6	872	13	0	894	1763
3:00 PM	0	5	0	0	0	5	0	3	178	1	2	182	0	4	0	4	0	8	0	1	205	3	1	209	404
3:15 PM	0	2	0	0	1	2	0	3	162	3	1	168	0	3	2	7	0	12	2	0	208	3	0	213	395
3:30 PM	0	7	1	1	0	9	0	7	164	3	0	174	0	0	0	2	1	2	0	0	239	1	1	240	425
3:45 PM	0	2	0	0	0	2	0	7	204	1	0	212	0	0	1	3	1	4	2	1	204	5	0	212	430
Hourly Total	0	16	1	1	1	18	0	20	708	8	3	736	0	7	3	16	2	26	4	2	856	12	2	874	1654
4:00 PM	0	1	0	0	0	1	1	3	205	1	1	210	0	1	0	4	1	5	0	0	216	4	1	220	436
4:15 PM	0	4	0	0	3	4	1	5	182	1	2	189	0	9	1	14	1	24	3	0	193	2	0	198	415
4:30 PM	0	6	0	0	0	6	1	1	190	2	3	194	0	4	1	5	2	10	6	0	198	5	0	209	419
4:45 PM	0	6	1	0	1	7	0	5	194	5	1	204	0	12	0	11	12	23	12	2	218	4	0	236	470
Hourly Total	0	17	1	0	4	18	3	14	771	9	7	797	0	26	2	34	16	62	21	2	825	15	1	863	1740
6 Hours TOTAL	0	94	21	2	25	117	12	141	4814	57	14	5024	0	107	24	133	38	264	57	16	5168	105	7	5346	10751
Cars	0	89	15	2	21	106	12	141	4784	57	12	4994	0	107	13	133	37	253	57	16	5136	103	4	5312	10665
Heavy Vehicles	0	5	6	0	4	11	0	0	30	0	2	30	0	0	11	0	1	11	0	0	32	2	3	34	86
Heavy Vehicle %	0.00%	5.32%	28.57%	0.00%	16.00%	9.40%	0.00%	0.00%	0.62%	0.00%	14.29%	0.60%	0.00%	0.00%	45.83%	0.00%	2.63%	4.17%	0.00%	0.00%	0.62%	1.90%	42.86%	0.64%	0.80%

**Dartmouth Ave and Foothill Blvd-14-0709
Claremonte California
Saturday, December 16, 2023**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	6	2	0	1	8	0	9	231	0	0	240	0	9	0	9	6	18	0	0	179	6	1	185	451
11:15 AM	0	3	2	0	4	5	2	8	186	4	0	200	0	12	3	4	4	19	1	0	202	7	1	210	434
11:30 AM	0	8	0	0	1	8	1	9	204	3	0	217	0	2	1	4	4	7	3	0	232	7	0	242	474
11:45 AM	0	9	4	0	0	13	3	3	210	3	0	219	0	7	1	7	1	15	4	1	250	4	0	259	506
Peak Hour Total	0	26	8	0	6	34	6	29	831	10	0	876	0	30	5	24	15	59	8	1	863	24	2	896	1865
PHF	0.000	0.722	0.500	0.000	0.375	0.654	0.500	0.806	0.899	0.625	0.000	0.913	0.000	0.625	0.417	0.667	0.625	0.776	0.500	0.250	0.863	0.857	0.500	0.865	0.921

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
12:30 PM	0	3	1	0	1	4	0	12	217	1	1	230	0	3	0	6	2	9	2	0	211	3	2	216	459
12:45 PM	0	4	1	0	0	5	0	5	205	0	0	210	0	1	1	4	0	6	4	1	236	6	0	247	468
1:00 PM	0	2	1	0	0	3	0	4	231	2	0	237	0	4	1	6	0	11	3	0	230	3	0	236	487
1:15 PM	0	1	1	0	0	2	1	8	242	7	0	258	0	3	0	6	0	9	3	0	205	10	0	218	487
Peak Hour Total	0	10	4	0	1	14	1	29	895	10	1	935	0	11	2	22	2	35	12	1	882	22	2	917	1901
PHF	0.000	0.625	1.000	0.000	0.250	0.700	0.250	0.604	0.925	0.357	0.250	0.906	0.000	0.688	0.500	0.917	0.250	0.795	0.750	0.250	0.934	0.550	0.250	0.928	0.976

Total Vehicles On Leg		214	
Vehicles Entering Intersection		117	
Vehicles Exiting Intersection		97	
Southbound			
Cars	2	15	89
Heavy	0	6	5
Total	2	21	94

Total Vehicles on Leg 10326	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	5346		4	3	7
			57	0	57
			16	0	16
			5136	32	5168
Vehicles Exiting Intersection		103	2	105	
Daily Volumes					

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 10431
57	0	57		5024	
4784	30	4814			
141	0	141			
12	0	12			
12	2	14		Vehicles Exiting Intersection	5407

Cars	37	0	107	13	133
Heavy	1	0	0	11	0
Total	38	0	107	24	133
Northbound					
Vehicles Entering Intersection			264		
Vehicles Exiting Intersection			267		
Total Vehicles On Leg			531		

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Thu, Apr 13, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Claremont
Mills
Foothil

PROJECT #: SC3943
LOCATION #: 5
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Mills			Mills			Foothil			Foothil			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0.5	0.5	1	1	1	1	1	2	0	1	2	1	

AM	7:00 AM	0	1	2	12	2	25	7	53	0	1	135	18	256
	7:15 AM	1	0	0	16	0	29	10	91	0	2	169	15	333
	7:30 AM	0	0	0	23	1	60	29	109	1	2	184	30	439
	7:45 AM	0	0	4	36	0	124	53	133	2	2	264	47	665
	8:00 AM	1	1	3	53	3	103	44	165	1	3	220	23	620
	8:15 AM	1	0	0	23	0	46	36	179	2	0	181	13	481
	8:30 AM	1	0	1	31	0	51	13	125	2	7	150	17	398
	8:45 AM	3	1	0	16	0	50	29	104	2	1	164	22	392
	VOLUMES	7	3	10	210	6	488	221	959	10	18	1,467	185	3,584
	APPROACH %	35%	15%	50%	30%	1%	69%	19%	81%	1%	1%	88%	11%	
APP/DEPART	20	/	408	704	/	29	1,190	/	1,184	1,670	/	1,963	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	2	1	7	135	4	333	162	586	6	7	849	113	2,205	
APPROACH %	20%	10%	70%	29%	1%	71%	21%	78%	1%	1%	88%	12%		
PEAK HR FACTOR	0.500			0.738			0.869			0.774			0.829	
APP/DEPART	10	/	276	472	/	15	754	/	730	969	/	1,184	0	
PM	4:00 PM	0	1	3	18	0	31	35	275	5	3	146	29	546
	4:15 PM	1	3	8	32	2	18	46	262	2	4	141	27	546
	4:30 PM	2	2	10	33	1	25	38	247	0	6	162	29	555
	4:45 PM	3	1	2	21	1	43	36	233	3	5	151	27	526
	5:00 PM	4	3	3	32	1	40	53	276	1	3	180	34	630
	5:15 PM	2	1	5	33	1	48	38	245	3	3	194	30	603
	5:30 PM	2	2	7	24	0	41	44	239	2	4	150	38	553
	5:45 PM	3	2	7	12	0	44	31	220	3	8	155	34	519
	VOLUMES	17	15	45	205	6	290	321	1,997	19	36	1,279	248	4,478
	APPROACH %	22%	19%	58%	41%	1%	58%	14%	85%	1%	2%	82%	16%	
APP/DEPART	77	/	584	501	/	50	2,337	/	2,258	1,563	/	1,586	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	11	7	20	119	4	156	165	1,001	7	17	687	120	2,314	
APPROACH %	29%	18%	53%	43%	1%	56%	14%	85%	1%	2%	83%	15%		
PEAK HR FACTOR	0.679			0.851			0.889			0.907			0.918	
APP/DEPART	38	/	292	279	/	25	1,173	/	1,143	824	/	854	0	

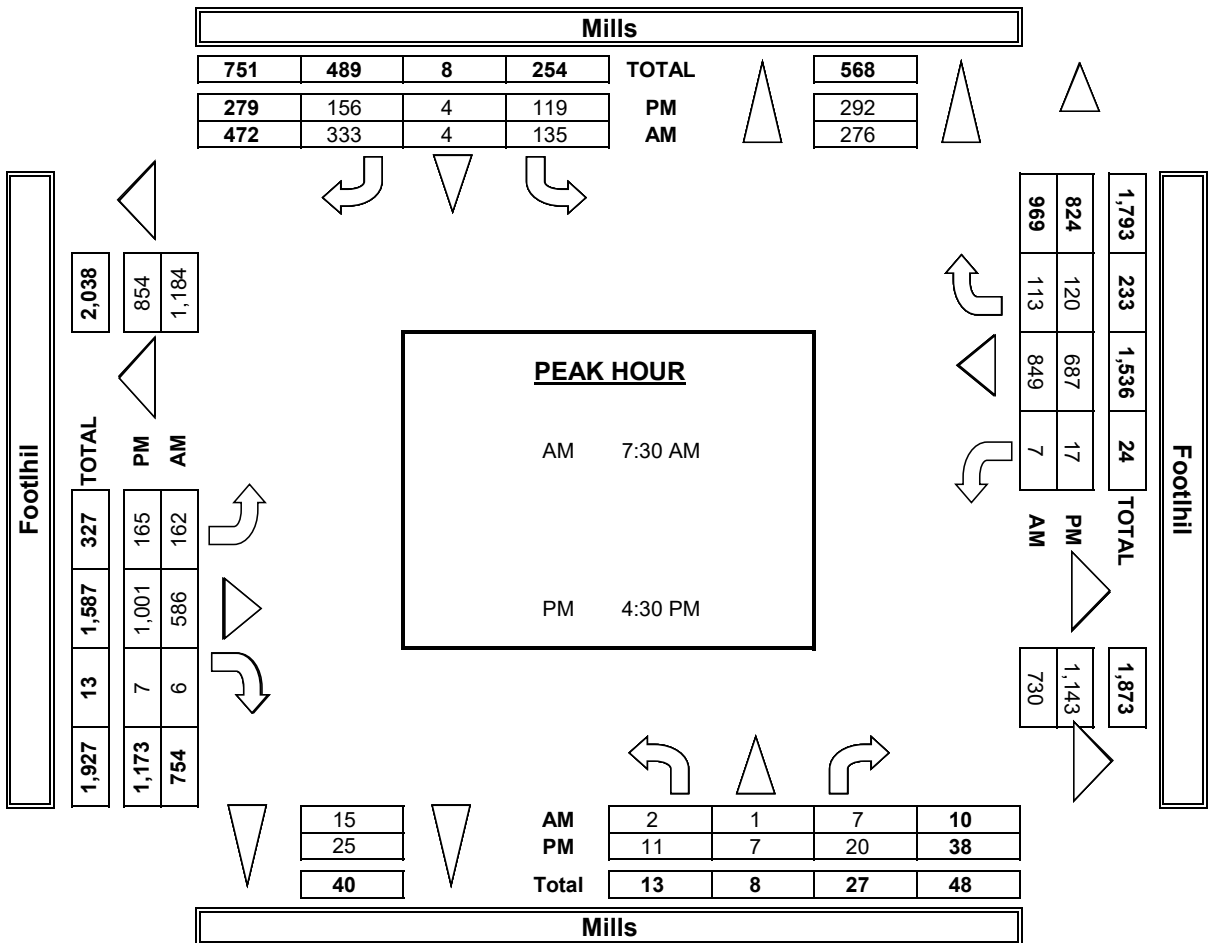
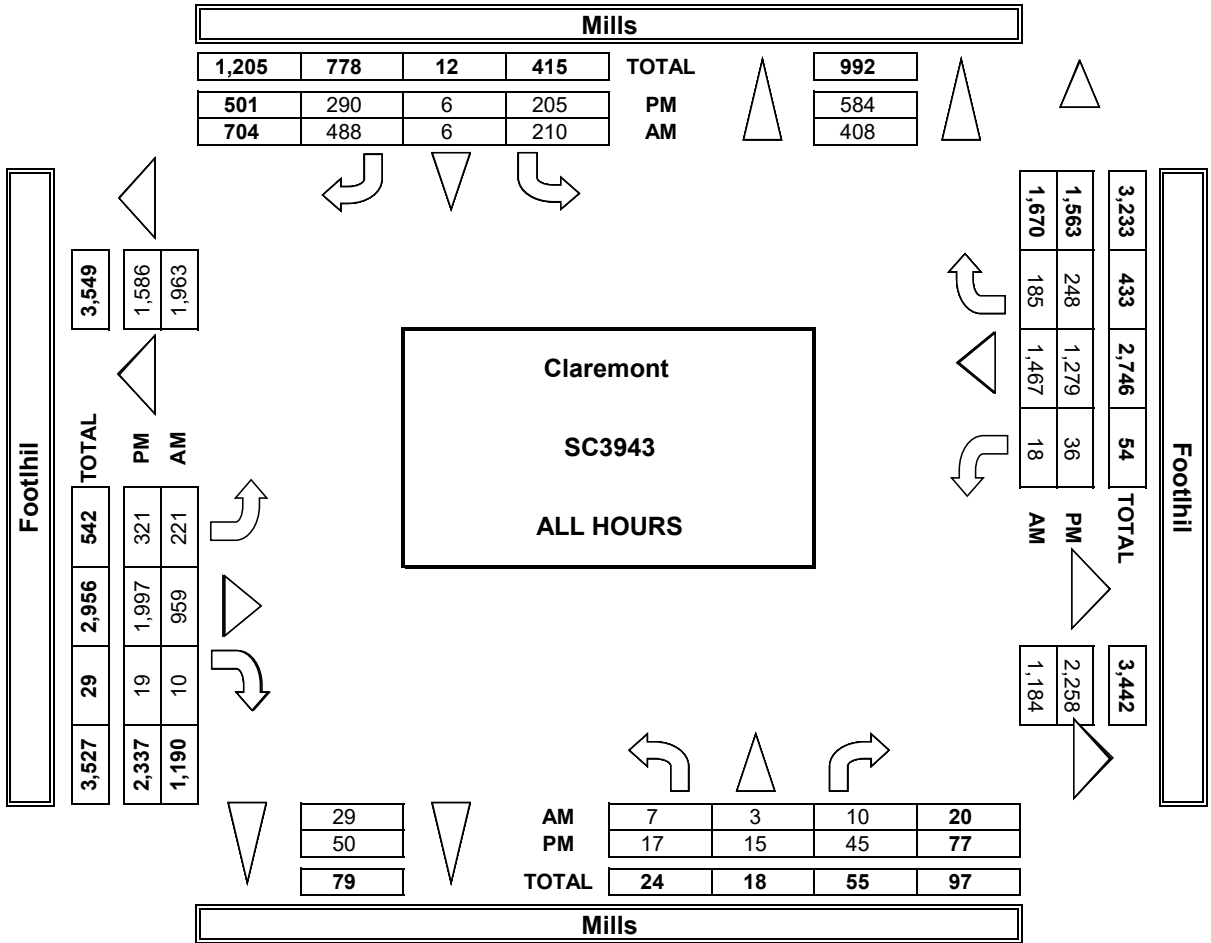


AM	7:00 AM	0	1	2	12	2	25	7	53	0	1	135	18	256
	7:15 AM	1	0	0	16	0	29	10	91	0	2	169	15	333
	7:30 AM	0	0	0	23	1	60	29	109	1	2	184	30	439
	7:45 AM	0	0	4	36	0	124	53	133	2	2	264	47	665
	8:00 AM	1	1	3	53	3	103	44	165	1	3	220	23	620
	8:15 AM	1	0	0	23	0	46	36	179	2	0	181	13	481
	8:30 AM	1	0	1	31	0	51	13	125	2	7	150	17	398
	8:45 AM	3	1	0	16	0	50	29	104	2	1	164	22	392
PM	4:00 PM	0	1	3	18	0	31	35	275	5	3	146	29	546
	4:15 PM	1	3	8	32	2	18	46	262	2	4	141	27	546
	4:30 PM	2	2	10	33	1	25	38	247	0	6	162	29	555
	4:45 PM	3	1	2	21	1	43	36	233	3	5	151	27	526
	5:00 PM	4	3	3	32	1	40	53	276	1	3	180	34	630
	5:15 PM	2	1	5	33	1	48	38	245	3	3	194	30	603
	5:30 PM	2	2	7	24	0	41	44	239	2	4	150	38	553
	5:45 PM	3	2	7	12	0	44	31	220	3	8	155	34	519

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	2	2
2	3	0	3	8
0	1	0	1	2
2	0	2	1	5
0	2	3	1	6
0	1	1	1	3
0	1	1	5	7
1	2	2	0	5
5	10	9	14	38
0	0	0	3	3
1	5	5	0	11
1	3	9	3	16
0	5	4	6	15
1	4	0	2	7
0	1	2	3	6
0	0	1	2	3
2	1	1	1	5
5	19	22	20	66

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	2	2
2	3	0	3	8
0	1	0	1	2
2	0	2	1	5
0	1	2	1	4
0	1	1	1	3
0	1	0	5	6
1	2	2	0	5
5	9	7	14	35
0	0	0	3	3
1	5	5	0	11
1	3	5	3	12
0	5	4	5	14
1	3	0	1	5
0	1	1	1	3
0	0	0	2	2
1	0	0	1	2
4	17	15	16	52

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Sat, Apr 15, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Claremont Mills Foothill	PROJECT #: SC3943 LOCATION #: 5 CONTROL: SIGNAL
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NOTES:	AM PM MD OTHER OTHER	◀ W E ▶	▲ N S ▼
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LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Mills NL 0.5	Mills NT 0.5	Mills NR 1	Mills SL 1	Mills ST 1	Mills SR 1	Foothill EL 1	Foothill ET 2	Foothill ER 0	Foothill WL 1	Foothill WT 2	Foothill WR 1	

MD	11:00 AM	3	0	4	17	0	38	30	148	2	4	163	25	434
	11:15 AM	4	0	4	30	1	47	32	178	1	6	162	29	494
	11:30 AM	3	0	1	17	1	32	21	159	3	3	159	23	422
	11:45 AM	1	0	1	34	0	55	37	198	2	3	182	24	537
	12:00 PM	6	2	5	21	0	33	40	180	8	5	167	20	487
	12:15 PM	2	3	6	28	0	43	42	186	7	4	169	34	524
	12:30 PM	0	2	3	26	2	36	34	206	1	3	171	27	511
	12:45 PM	1	0	6	28	1	46	41	207	1	1	164	29	525
	1:00 PM	2	1	5	23	2	34	41	221	8	8	185	28	558
	1:15 PM	1	1	7	18	0	35	33	199	0	3	183	26	506
	1:30 PM	1	3	3	27	1	24	43	193	0	9	161	19	484
	1:45 PM	4	1	3	33	3	38	32	166	3	3	179	19	484
	VOLUMES	28	13	48	302	11	461	426	2,241	36	52	2,045	303	5,966
	APPROACH %	31%	15%	54%	39%	1%	60%	16%	83%	1%	2%	85%	13%	
APP/DEPART	89	/	741	774	/	75	2,703	/	2,615	2,400	/	2,535	0	
BEGIN PEAK HR	12:15 PM													
VOLUMES	5	6	20	105	5	159	158	820	17	16	689	118	2,118	
APPROACH %	16%	19%	65%	39%	2%	59%	16%	82%	2%	2%	84%	14%		
PEAK HR FACTOR	0.705			0.897			0.921			0.931			0.949	
APP/DEPART	31	/	282	269	/	32	995	/	951	823	/	853	0	
PM	02:00 PM	3	0	2	13	0	31	41	184	3	4	174	28	483
	2:15 PM	2	1	2	26	0	33	28	174	4	4	217	29	520
	2:30 PM	4	0	9	25	0	41	37	200	3	6	166	21	512
	2:45 PM	0	2	2	18	1	35	32	199	1	2	157	28	477
	3:00 PM	1	0	2	21	0	38	36	200	2	3	146	30	479
	3:15 PM	1	3	4	24	0	36	48	168	4	5	139	34	466
	3:30 PM	1	1	8	28	1	28	30	173	2	5	166	18	461
	3:45 PM	4	0	1	19	2	44	27	192	1	2	153	30	475
	4:00 PM	2	2	5	15	1	38	42	198	4	3	157	28	495
	4:15 PM	3	0	2	25	2	36	32	195	2	4	142	25	468
	4:30 PM	1	1	4	30	1	39	21	201	3	1	144	18	464
	4:45 PM	4	1	2	15	3	25	27	175	1	4	175	21	453
	VOLUMES	26	11	43	259	11	424	401	2,259	30	43	1,936	310	5,753
	APPROACH %	33%	14%	54%	37%	2%	61%	15%	84%	1%	2%	85%	14%	
APP/DEPART	80	/	722	694	/	68	2,690	/	2,577	2,289	/	2,386	0	
BEGIN PEAK HR	2:00 PM													
VOLUMES	9	3	15	82	1	140	138	757	11	16	714	106	1,992	
APPROACH %	33%	11%	56%	37%	0%	63%	15%	84%	1%	2%	85%	13%		
PEAK HR FACTOR	0.519			0.845			0.944			0.836			0.958	
APP/DEPART	27	/	247	223	/	20	906	/	862	836	/	863	0	

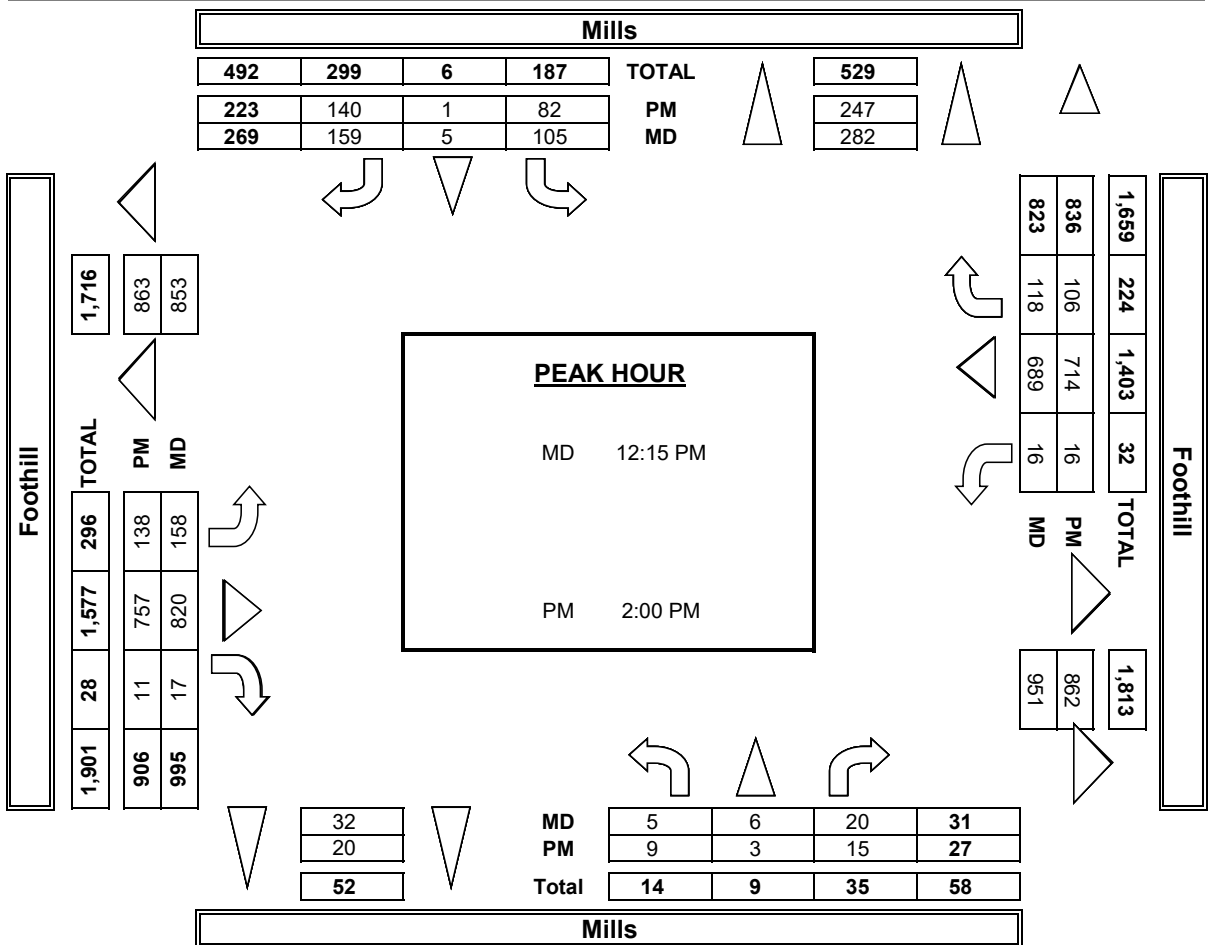
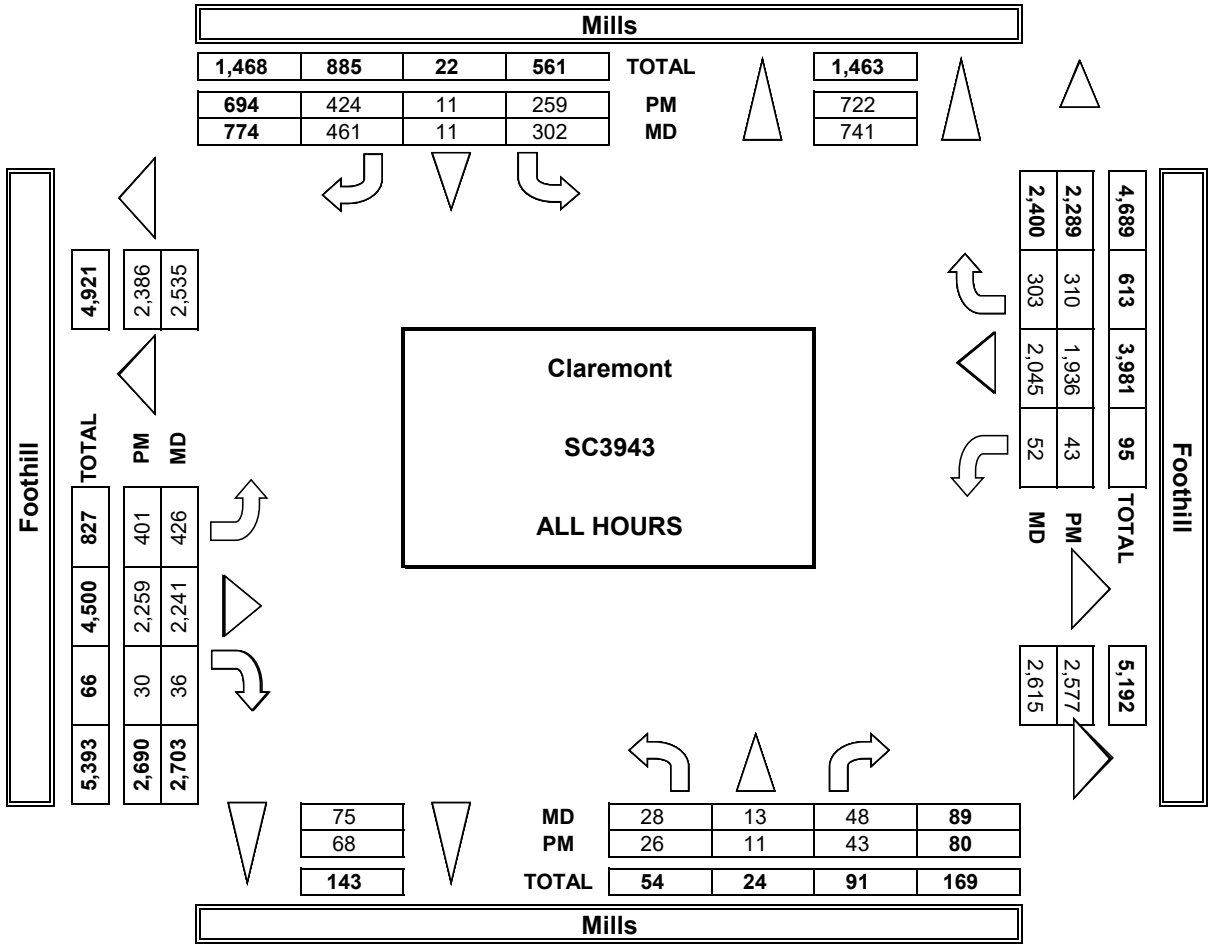


MD	11:00 AM	0	6	3	2	11
	11:15 AM	0	0	9	2	11
	11:30 AM	2	3	2	2	9
	11:45 AM	0	4	1	4	9
	12:00 PM	4	1	6	7	18
	12:15 PM	5	0	3	1	9
	12:30 PM	4	2	2	3	11
	12:45 PM	1	3	6	6	16
	1:00 PM	0	1	1	2	4
	1:15 PM	1	3	2	1	7
	1:30 PM	1	4	3	1	9
	1:45 PM	1	2	5	2	10
	TOTAL	19	29	43	33	124
	PM	2:00 PM	4	0	4	4
2:15 PM		0	1	1	1	3
2:30 PM		2	1	2	0	5
2:45 PM		0	2	6	0	8
3:00 PM		2	2	2	4	10
3:15 PM		1	0	5	0	6
3:30 PM		1	4	3	5	13
3:45 PM		1	6	5	3	15
4:00 PM		6	1	5	2	14
4:15 PM		0	3	5	0	8
4:30 PM		1	1	4	2	8
4:45 PM		1	2	5	3	11
TOTAL		19	23	47	24	113

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	6	3	2	11
0	0	9	2	11
2	3	2	2	9
0	4	1	4	9
4	1	6	7	18
5	0	3	1	9
4	2	2	3	11
1	3	6	6	16
0	1	1	2	4
1	3	2	1	7
1	4	3	1	9
1	2	5	2	10
19	29	43	33	124
4	0	4	4	12
0	1	1	1	3
2	1	2	0	5
0	2	6	0	8
2	2	2	4	10
1	0	5	0	6
1	4	3	5	13
1	6	5	3	15
6	1	5	2	14
0	3	5	0	8
1	1	4	2	8
1	2	5	3	11
19	23	47	24	113

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	3	1	2	6
0	0	6	0	6
1	0	0	1	2
0	4	1	1	6
3	0	2	5	10
0	0	1	1	2
3	1	0	1	5
1	0	4	2	7
0	0	1	0	1
1	2	2	0	5
0	4	3	1	8
0	2	4	1	7
9	16	25	15	65
4	0	4	4	12
0	1	0	0	1
0	0	0	0	0
0	0	3	0	3
2	2	2	3	9
1	0	3	0	4
1	4	3	4	12
1	4	3	2	10
4	1	4	2	11
0	3	4	0	7
0	1	4	0	5
0	1	4	0	5
13	17	34	15	79

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Tue, Oct 4, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

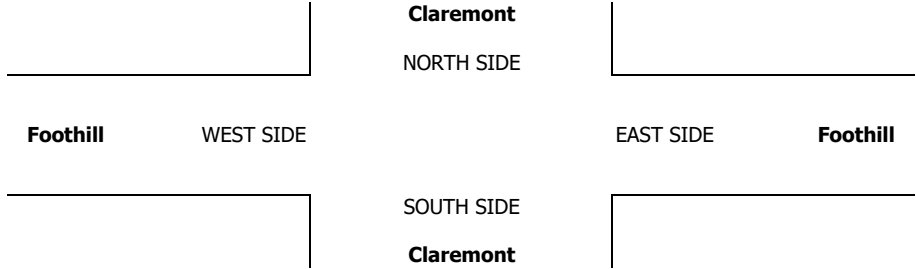
Claremont
Claremont
Foothill

PROJECT #: SC3668
LOCATION #: 1
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Claremont			Claremont			Foothill			Foothill			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	

AM	7:00 AM	36	30	2	11	56	11	12	48	17	18	109	2	352
	7:15 AM	30	26	14	7	40	16	24	70	29	26	161	8	451
	7:30 AM	40	50	17	17	62	26	14	74	20	31	188	7	546
	7:45 AM	45	64	17	12	66	36	47	98	30	41	196	9	661
	8:00 AM	50	54	15	16	88	16	47	108	43	33	172	10	652
	8:15 AM	36	50	11	13	53	19	48	126	34	30	146	7	573
	8:30 AM	20	49	18	14	56	15	32	106	19	15	137	6	487
	8:45 AM	35	40	16	3	53	27	25	84	21	22	124	10	460
	VOLUMES	292	363	110	93	474	166	249	714	213	216	1,233	59	4,182
	APPROACH %	38%	47%	14%	13%	65%	23%	21%	61%	18%	14%	82%	4%	
APP/DEPART	765	/	649	733	/	895	1,176	/	922	1,508	/	1,716	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	171	218	60	58	269	97	156	406	127	135	702	33	2,432	
APPROACH %	38%	49%	13%	14%	63%	23%	23%	59%	18%	16%	81%	4%		
PEAK HR FACTOR	0.891			0.883			0.828			0.884			0.920	
APP/DEPART	449	/	391	424	/	527	689	/	526	870	/	988	0	
PM	4:00 PM	32	48	22	20	34	24	49	206	31	20	134	5	625
	4:15 PM	36	58	24	16	47	16	40	209	25	28	133	9	641
	4:30 PM	22	61	33	16	54	19	28	206	37	34	129	14	653
	4:45 PM	27	57	25	23	43	18	32	207	35	21	132	9	629
	5:00 PM	39	66	31	17	42	14	46	244	48	12	160	11	730
	5:15 PM	27	54	17	18	47	21	43	234	38	34	135	13	681
	5:30 PM	22	52	23	14	41	31	32	215	22	11	136	6	605
	5:45 PM	29	42	19	8	52	18	38	188	34	18	136	12	594
	VOLUMES	234	438	194	132	360	161	308	1,709	270	178	1,095	79	5,158
	APPROACH %	27%	51%	22%	20%	55%	25%	13%	75%	12%	13%	81%	6%	
APP/DEPART	866	/	808	653	/	794	2,287	/	2,038	1,352	/	1,518	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	115	238	106	74	186	72	149	891	158	101	556	47	2,693	
APPROACH %	25%	52%	23%	22%	56%	22%	12%	74%	13%	14%	79%	7%		
PEAK HR FACTOR	0.844			0.933			0.886			0.962			0.922	
APP/DEPART	459	/	426	332	/	436	1,198	/	1,072	704	/	759	0	

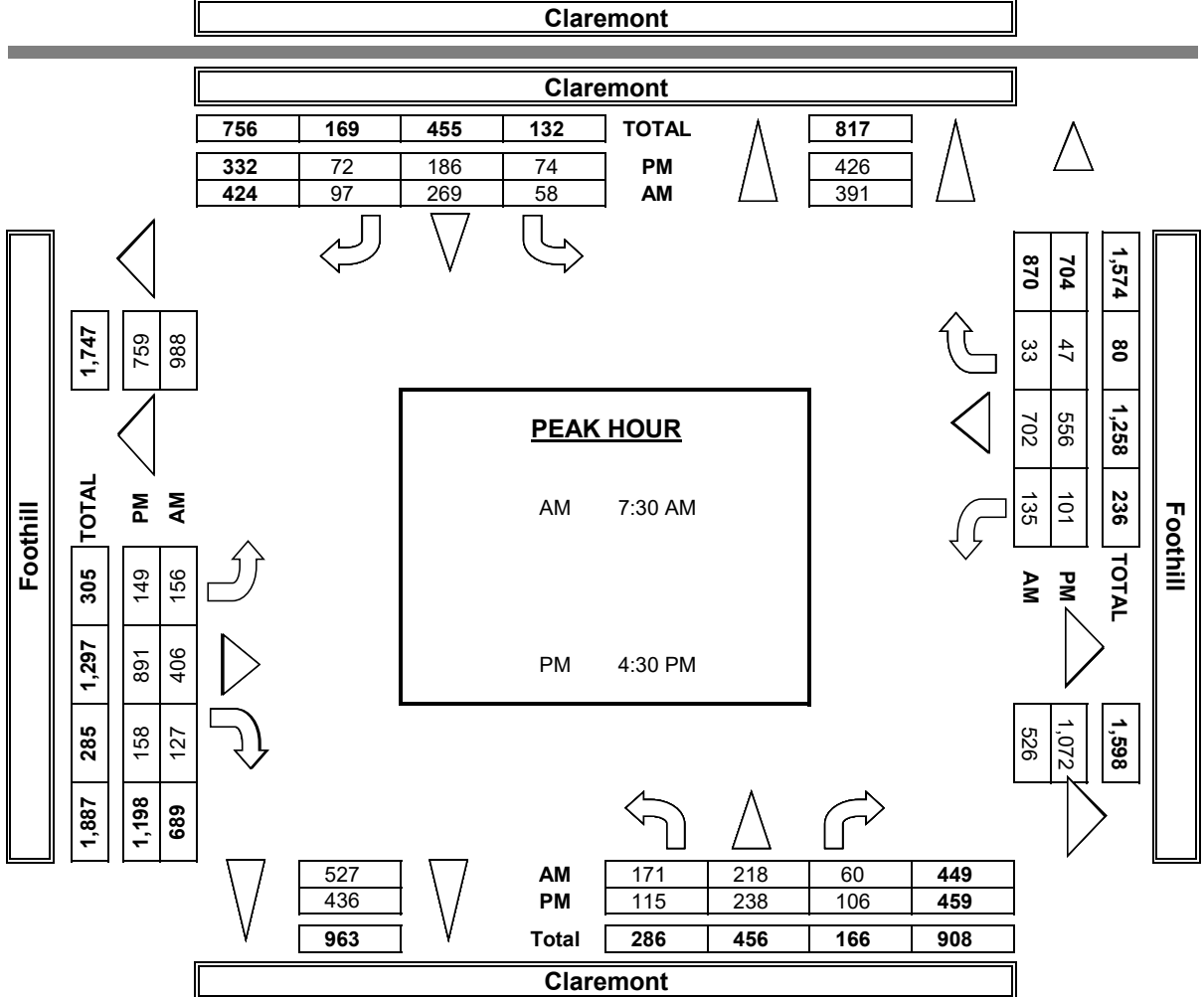
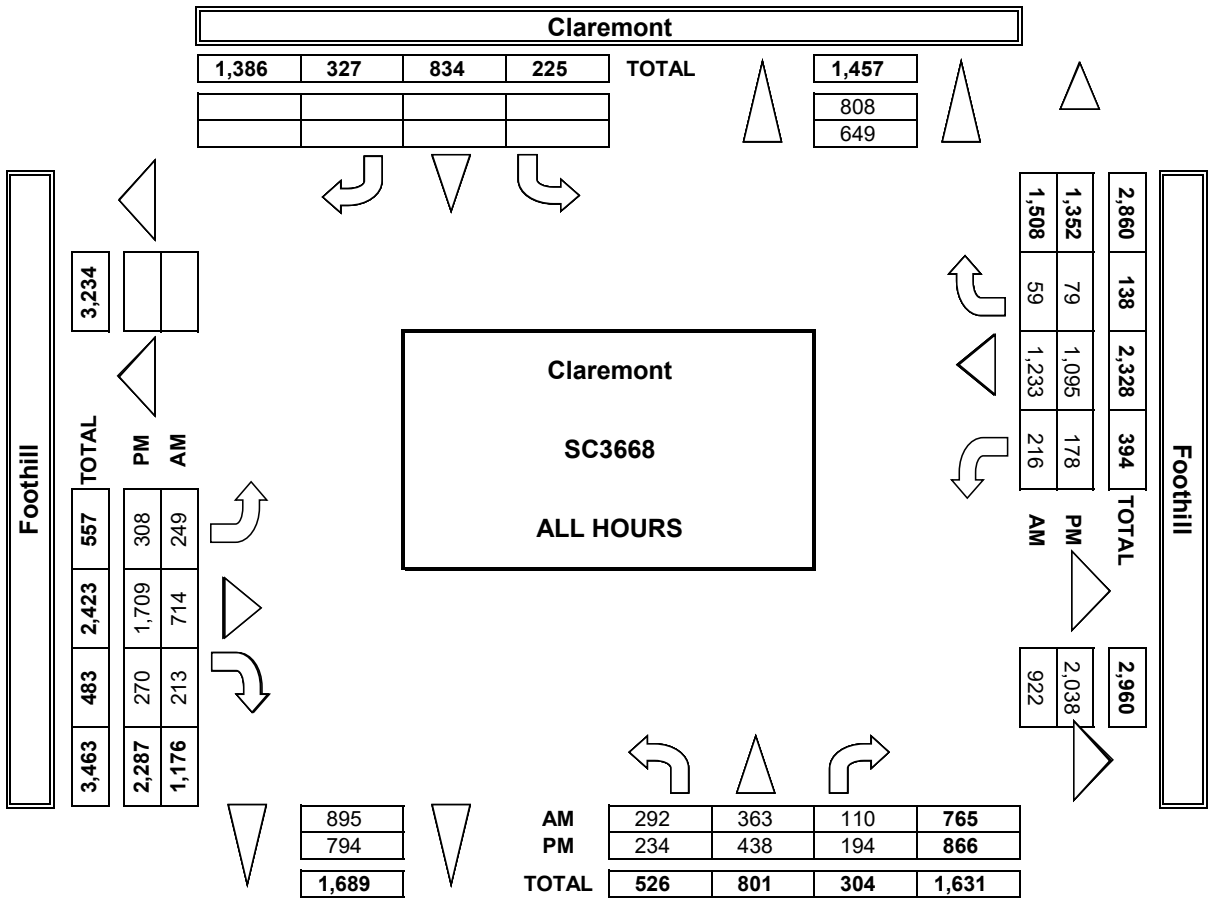


AM	7:00 AM	0	0	0	2	2
	7:15 AM	0	0	0	0	0
	7:30 AM	3	1	0	0	4
	7:45 AM	1	2	1	0	4
	8:00 AM	1	1	2	0	4
	8:15 AM	0	1	0	0	1
	8:30 AM	1	0	0	0	1
	8:45 AM	1	0	3	0	4
TOTAL	7	5	6	2	20	
PM	4:00 PM	0	1	0	0	1
	4:15 PM	0	1	2	3	6
	4:30 PM	1	0	0	1	2
	4:45 PM	2	3	2	7	14
	5:00 PM	0	2	0	1	3
	5:15 PM	0	3	1	5	9
	5:30 PM	0	0	0	3	3
	5:45 PM	1	3	1	3	8
TOTAL	4	13	6	23	46	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	2	2
0	0	0	0	0
3	1	0	0	4
1	2	1	0	4
1	1	2	0	4
0	1	0	0	1
1	0	0	0	1
1	0	3	0	4
7	5	6	2	20
0	1	0	0	1
0	1	2	3	6
1	0	0	1	2
2	3	2	7	14
0	2	0	1	3
0	3	1	5	9
0	0	0	3	3
1	3	1	3	8
4	13	6	23	46

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	2	2
0	0	0	0	0
0	1	0	0	1
0	2	0	0	2
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	4	0	2	6
0	0	0	0	0
0	1	1	2	4
0	0	0	0	0
1	1	1	7	10
0	2	0	0	2
0	0	0	4	4
0	0	0	3	3
1	3	1	2	7
2	7	3	18	30

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Sat, Oct 1, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Claremont
Claremont
Foothill

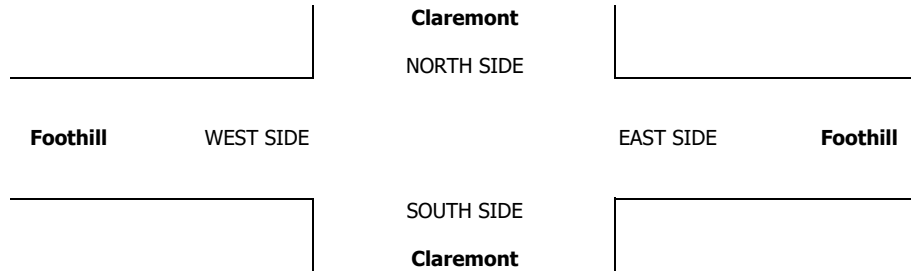
PROJECT #:
LOCATION #:
CONTROL:

SC3668
1
SIGNAL

NOTES:	AM PM MD OTHER OTHER	◀ W S ▶	▲ N S ▼	E ▶
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LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Claremont			Claremont			Foothill			Foothill			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2	0	1	2	0	1	2	1	1	2	1	

MD	11:00 AM	31	47	18	15	54	20	28	149	27	18	132	10	549
	11:15 AM	20	44	22	15	40	26	32	157	33	21	152	9	571
	11:30 AM	20	57	23	19	39	20	32	148	21	25	124	8	536
	11:45 AM	26	37	19	12	38	11	35	154	25	26	166	8	557
	12:00 PM	39	51	15	16	43	27	42	170	37	16	145	14	615
	12:15 PM	25	52	20	20	48	14	31	140	25	23	130	10	538
	12:30 PM	26	34	12	14	36	19	20	148	30	19	156	12	526
	12:45 PM	26	38	12	14	48	20	33	156	23	19	161	14	564
	1:00 PM	29	47	26	8	44	17	39	144	30	25	160	10	579
	1:15 PM	18	53	28	13	43	25	25	134	24	20	147	14	544
VOLUMES	260	460	195	146	433	199	317	1,500	275	212	1,473	109	5,579	
APPROACH %	28%	50%	21%	19%	56%	26%	15%	72%	13%	12%	82%	6%		
APP/DEPART	915	/	855	778	/	889	2,092	/	1,866	1,794	/	1,969	0	
BEGIN PEAK HR	11:15 AM													
VOLUMES	105	189	79	62	160	84	141	629	116	88	587	39	2,279	
APPROACH %	28%	51%	21%	20%	52%	27%	16%	71%	13%	12%	82%	5%		
PEAK HR FACTOR	0.888			0.890			0.890			0.893			0.926	
APP/DEPART	373	/	355	306	/	353	886	/	778	714	/	793	0	
PM	03:00 PM	30	38	17	12	39	19	21	148	31	18	130	12	515
	3:15 PM	21	39	17	11	37	17	40	153	23	18	153	5	534
	3:30 PM	19	55	17	12	39	10	24	152	20	25	134	16	523
	3:45 PM	20	44	21	11	41	26	27	166	25	25	146	18	570
	4:00 PM	21	30	22	18	38	17	29	171	31	27	140	8	552
	4:15 PM	28	39	19	13	37	18	24	134	30	19	138	8	507
	4:30 PM	18	36	15	8	33	13	26	135	21	16	132	8	461
	4:45 PM	30	31	22	8	29	13	23	127	39	15	128	12	477
	VOLUMES	187	312	150	93	295	133	214	1,186	220	163	1,101	87	4,141
	APPROACH %	29%	48%	23%	18%	57%	26%	13%	73%	14%	12%	81%	6%	
APP/DEPART	649	/	601	521	/	663	1,620	/	1,433	1,351	/	1,444	0	
BEGIN PEAK HR	3:15 PM													
VOLUMES	81	168	77	52	155	70	120	642	99	95	573	47	2,179	
APPROACH %	25%	52%	24%	19%	56%	25%	14%	75%	11%	13%	80%	7%		
PEAK HR FACTOR	0.896			0.888			0.932			0.946			0.956	
APP/DEPART	326	/	335	277	/	341	861	/	772	715	/	731	0	

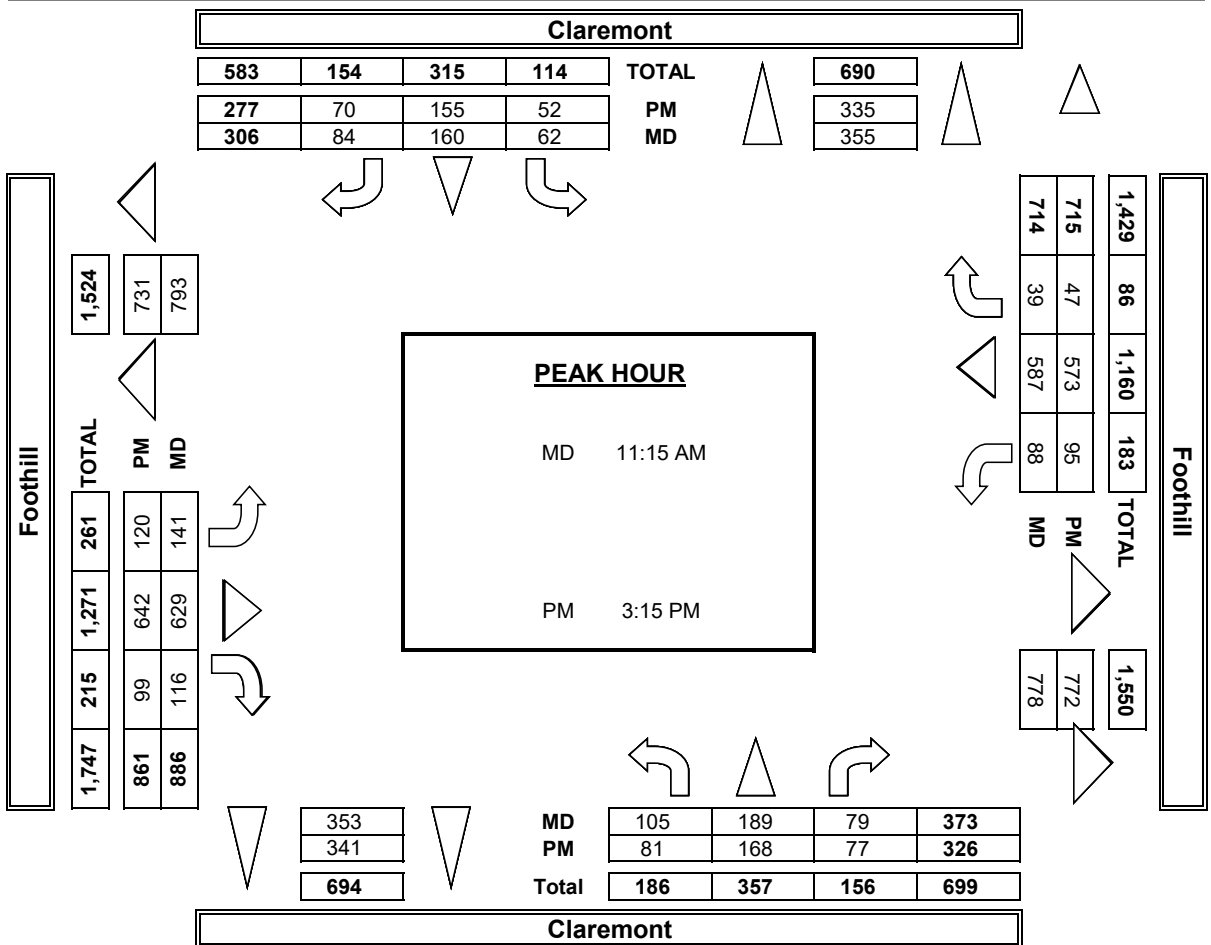
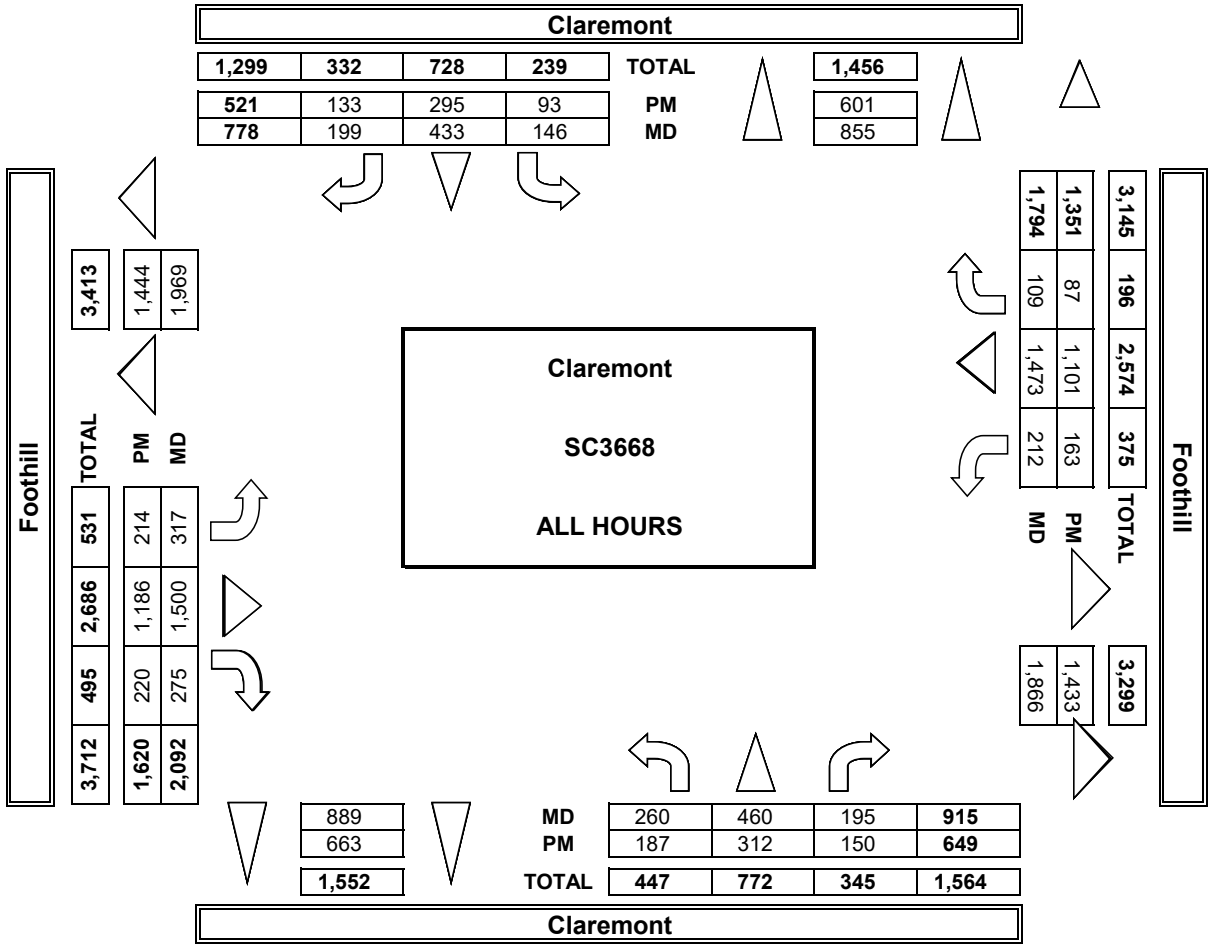


MD	11:00 AM	3	0	0	0	3
	11:15 AM	0	2	0	1	3
	11:30 AM	0	3	0	0	3
	11:45 AM	1	1	0	1	3
	12:00 PM	1	0	0	0	1
	12:15 PM	0	0	0	0	0
	12:30 PM	2	0	0	0	2
	12:45 PM	0	3	0	2	5
	1:00 PM	3	2	4	1	10
	1:15 PM	0	1	0	0	1
TOTAL	10	12	4	5	31	
PM	3:00 PM	0	1	0	2	3
	3:15 PM	0	0	0	3	3
	3:30 PM	0	0	0	2	2
	3:45 PM	0	1	1	1	3
	4:00 PM	1	1	0	2	4
	4:15 PM	4	0	0	7	11
	4:30 PM	0	1	0	0	1
	4:45 PM	0	0	0	1	1
TOTAL	5	4	1	18	28	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
3	0	0	0	3
0	2	0	1	3
0	3	0	0	3
1	1	0	1	3
1	0	0	0	1
0	0	0	0	0
2	0	0	0	2
0	3	0	2	5
3	2	4	1	10
0	1	0	0	1
10	12	4	5	31
0	1	0	2	3
0	0	0	3	3
0	0	0	2	2
0	1	1	1	3
1	1	0	2	4
4	0	0	7	11
0	1	0	0	1
0	0	0	1	1
5	4	1	18	28

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	1	3
0	2	0	1	3
0	0	0	0	0
1	5	0	3	9
0	0	0	0	0
0	0	0	2	2
0	0	0	2	2
0	1	1	1	3
0	0	0	2	2
1	0	0	7	8
0	1	0	0	1
0	0	0	1	1
1	2	1	15	19

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Tue, Oct 4, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Upland
Monte Vista
Foothill

PROJECT #: SC3668
LOCATION #: 9
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Monte Vista			Monte Vista			Foothill			Foothill			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2	1	2	3	0	1	2	1	2	2	1	

AM	7:00 AM	29	45	8	15	60	3	3	52	12	13	98	28	366
	7:15 AM	27	47	10	12	70	7	4	65	21	21	169	23	476
	7:30 AM	34	96	17	15	75	8	5	83	18	20	173	32	576
	7:45 AM	42	95	20	20	59	10	7	105	15	24	211	43	651
	8:00 AM	36	71	21	25	83	4	7	106	22	24	163	33	595
	8:15 AM	23	56	15	23	49	12	11	120	27	19	147	39	541
	8:30 AM	20	71	25	20	63	12	12	104	22	23	125	26	523
	8:45 AM	24	75	19	23	64	13	6	79	15	21	132	28	499
	VOLUMES	235	556	135	153	523	69	55	714	152	165	1,218	252	4,227
	APPROACH %	25%	60%	15%	21%	70%	9%	6%	78%	17%	10%	74%	15%	
APP/DEPART	926	/	864	745	/	837	921	/	1,006	1,635	/	1,520	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	135	318	73	83	266	34	30	414	82	87	694	147	2,363	
APPROACH %	26%	60%	14%	22%	69%	9%	6%	79%	16%	9%	75%	16%		
PEAK HR FACTOR	0.838			0.855			0.832			0.835			0.907	
APP/DEPART	526	/	496	383	/	435	526	/	570	928	/	862	0	
PM	4:00 PM	45	76	36	31	75	13	19	193	40	21	121	32	702
	4:15 PM	26	61	24	36	84	14	12	197	37	26	124	32	673
	4:30 PM	28	74	31	30	94	17	14	202	38	26	126	42	722
	4:45 PM	31	71	30	36	95	7	17	194	39	26	122	26	694
	5:00 PM	49	57	33	52	106	9	10	249	36	41	131	39	812
	5:15 PM	37	57	17	33	98	5	11	213	49	18	128	37	703
	5:30 PM	27	78	17	36	96	8	12	192	42	18	114	33	673
	5:45 PM	39	48	29	37	106	7	9	166	45	26	112	41	665
	VOLUMES	282	522	217	291	754	80	104	1,606	326	202	978	282	5,644
	APPROACH %	28%	51%	21%	26%	67%	7%	5%	79%	16%	14%	67%	19%	
APP/DEPART	1,021	/	905	1,125	/	1,268	2,036	/	2,131	1,462	/	1,340	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	145	259	111	151	393	38	52	858	162	111	507	144	2,931	
APPROACH %	28%	50%	22%	26%	68%	7%	5%	80%	15%	15%	67%	19%		
PEAK HR FACTOR	0.926			0.871			0.908			0.903			0.902	
APP/DEPART	515	/	453	582	/	660	1,072	/	1,129	762	/	689	0	

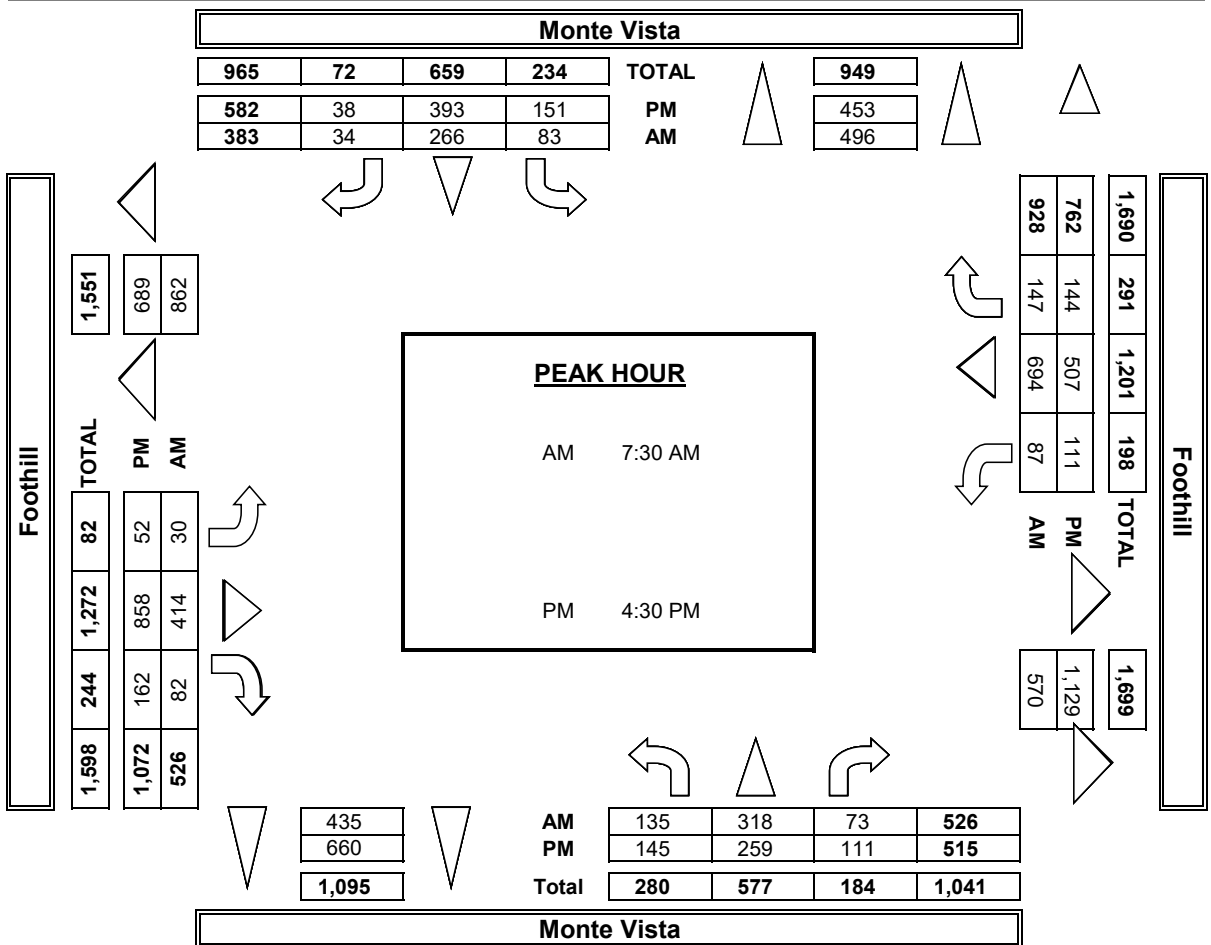
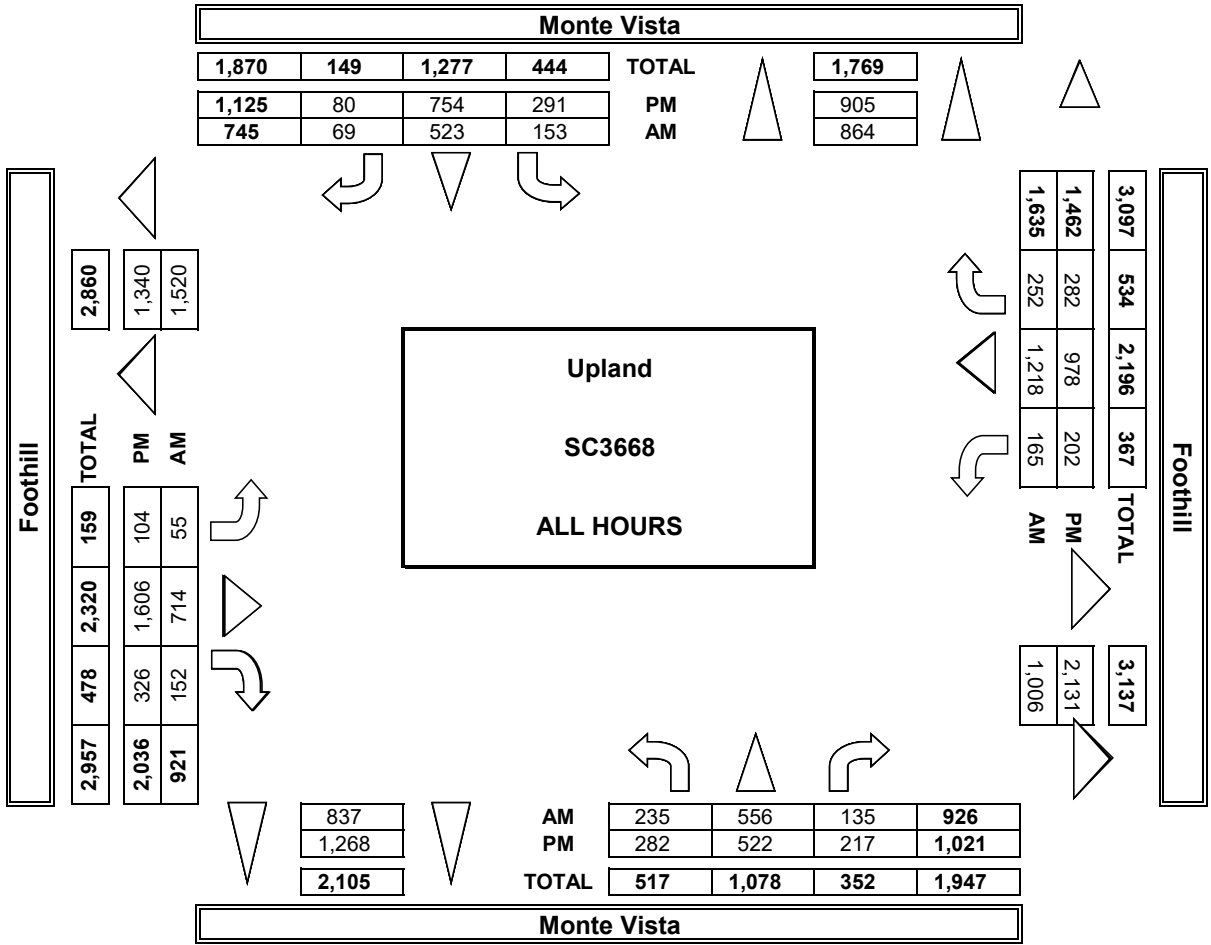


AM	7:00 AM	0	1	0	0	1
	7:15 AM	0	0	0	0	0
	7:30 AM	2	0	0	0	2
	7:45 AM	1	0	0	0	1
	8:00 AM	1	0	0	0	1
	8:15 AM	0	2	0	1	3
	8:30 AM	1	1	0	1	3
	8:45 AM	1	0	0	0	1
TOTAL	6	4	0	2	12	
PM	4:00 PM	0	0	0	0	0
	4:15 PM	1	0	0	0	1
	4:30 PM	0	0	0	0	0
	4:45 PM	1	3	0	0	4
	5:00 PM	0	1	0	0	1
	5:15 PM	2	1	0	0	3
	5:30 PM	0	0	0	0	0
	5:45 PM	2	2	1	0	5
TOTAL	6	7	1	0	14	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	1	0	0	1
0	0	0	0	0
2	0	0	0	2
1	0	0	0	1
1	0	0	0	1
0	2	0	1	3
1	1	0	1	3
1	0	0	0	1
6	4	0	2	12
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
1	3	0	0	4
0	1	0	0	1
2	1	0	0	3
0	0	0	0	0
2	2	1	0	5
6	7	1	0	14

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
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	2	0	1	3
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
1	1	1	0	3
1	4	1	0	6

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Sat, Oct 1, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Upland
Monte Vista
Foothill

PROJECT #: SC3668
LOCATION #: 9
CONTROL: SIGNAL

NOTES:	AM PM MD OTHER OTHER	◀ W	▲ N S ▼	E ▶
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LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2	1	2	3	0	1	2	1	2	2	1	

MD	11:00 AM	29	50	25	23	72	16	5	141	44	18	118	24	565
	11:15 AM	35	65	19	33	75	16	16	139	32	22	115	24	591
	11:30 AM	24	59	13	25	71	8	7	161	30	16	130	33	577
	11:45 AM	41	76	23	34	77	11	8	149	30	27	130	37	643
	12:00 PM	33	66	27	18	55	12	5	169	38	25	139	31	618
	12:15 PM	29	59	10	27	86	10	9	146	27	32	116	27	578
	12:30 PM	38	52	15	41	70	14	11	128	43	24	149	39	624
	12:45 PM	29	56	18	16	77	8	10	138	31	14	156	39	592
	1:00 PM	36	55	19	35	63	8	11	134	26	22	139	37	585
	1:15 PM	35	67	24	28	75	12	10	133	33	25	119	34	595
VOLUMES	329	605	193	280	721	115	92	1,438	334	225	1,311	325	5,968	
APPROACH %	29%	54%	17%	25%	65%	10%	5%	77%	18%	12%	70%	17%		
APP/DEPART	1,127	/	1,012	1,116	/	1,275	1,864	/	1,920	1,861	/	1,761	0	
BEGIN PEAK HR	11:45 AM													
VOLUMES	141	253	75	120	288	47	33	592	138	108	534	134	2,463	
APPROACH %	30%	54%	16%	26%	63%	10%	4%	78%	18%	14%	69%	17%		
PEAK HR FACTOR	0.838			0.910			0.900			0.915			0.958	
APP/DEPART	469	/	415	455	/	532	763	/	792	776	/	724	0	
PM	03:00 PM	23	56	22	30	67	7	8	126	29	25	123	28	544
	3:15 PM	22	62	15	19	64	4	11	163	26	31	151	22	590
	3:30 PM	33	38	18	22	70	8	9	116	23	17	139	31	524
	3:45 PM	30	54	19	18	73	6	12	169	24	29	148	28	610
	4:00 PM	29	48	24	23	53	15	12	173	34	13	126	31	581
	4:15 PM	25	56	17	18	71	12	6	125	33	15	106	23	507
	4:30 PM	26	53	16	21	66	17	6	137	27	12	108	11	500
	4:45 PM	29	72	17	15	42	6	8	136	19	26	117	27	514
	VOLUMES	217	439	148	166	506	75	72	1,145	215	170	1,018	207	4,378
	APPROACH %	27%	55%	18%	22%	68%	10%	5%	80%	15%	12%	73%	15%	
APP/DEPART	804	/	710	747	/	881	1,432	/	1,473	1,395	/	1,314	0	
BEGIN PEAK HR	3:15 PM													
VOLUMES	114	202	76	82	260	33	44	621	107	90	564	112	2,305	
APPROACH %	29%	52%	19%	22%	69%	9%	6%	80%	14%	12%	74%	15%		
PEAK HR FACTOR	0.951			0.938			0.881			0.934			0.945	
APP/DEPART	392	/	352	375	/	455	772	/	785	766	/	713	0	

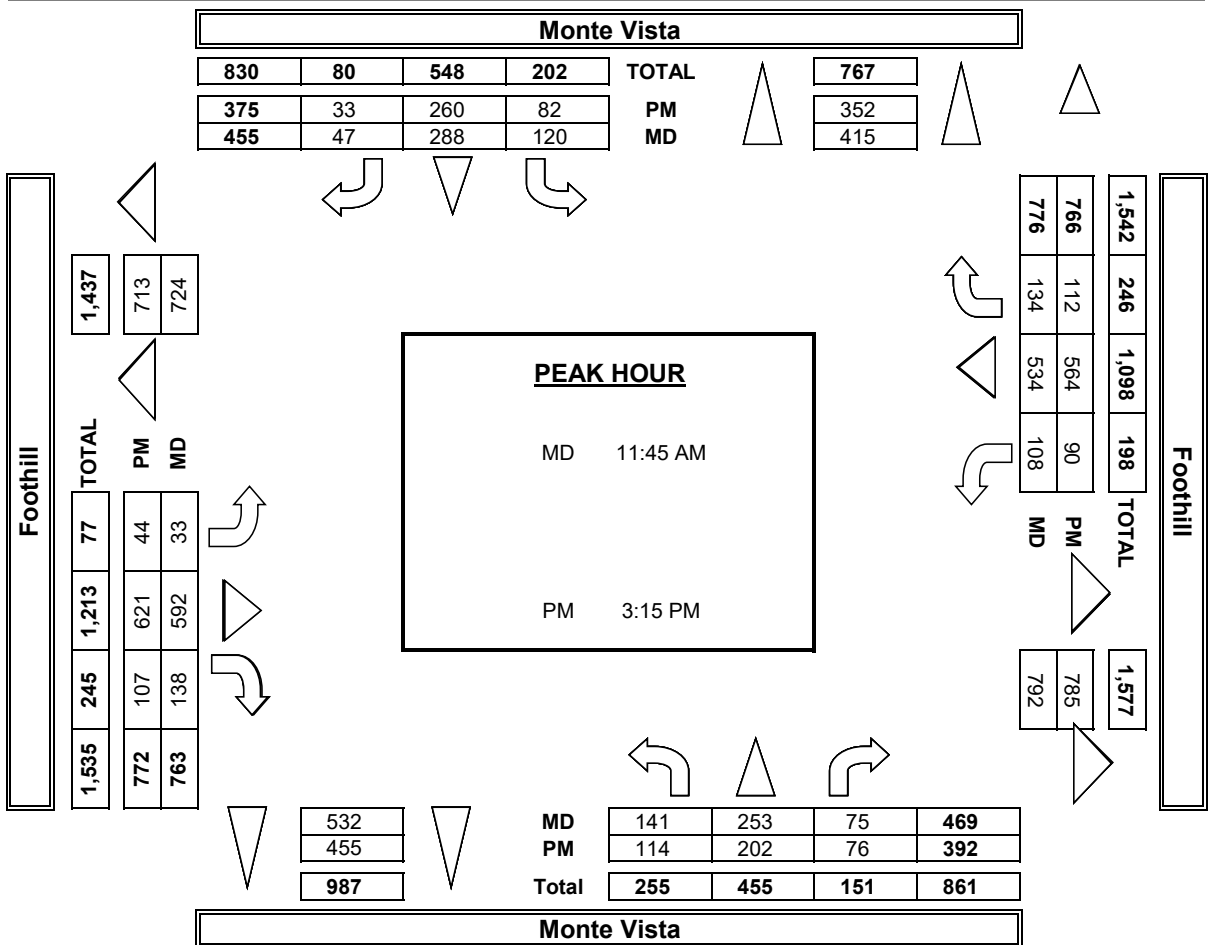
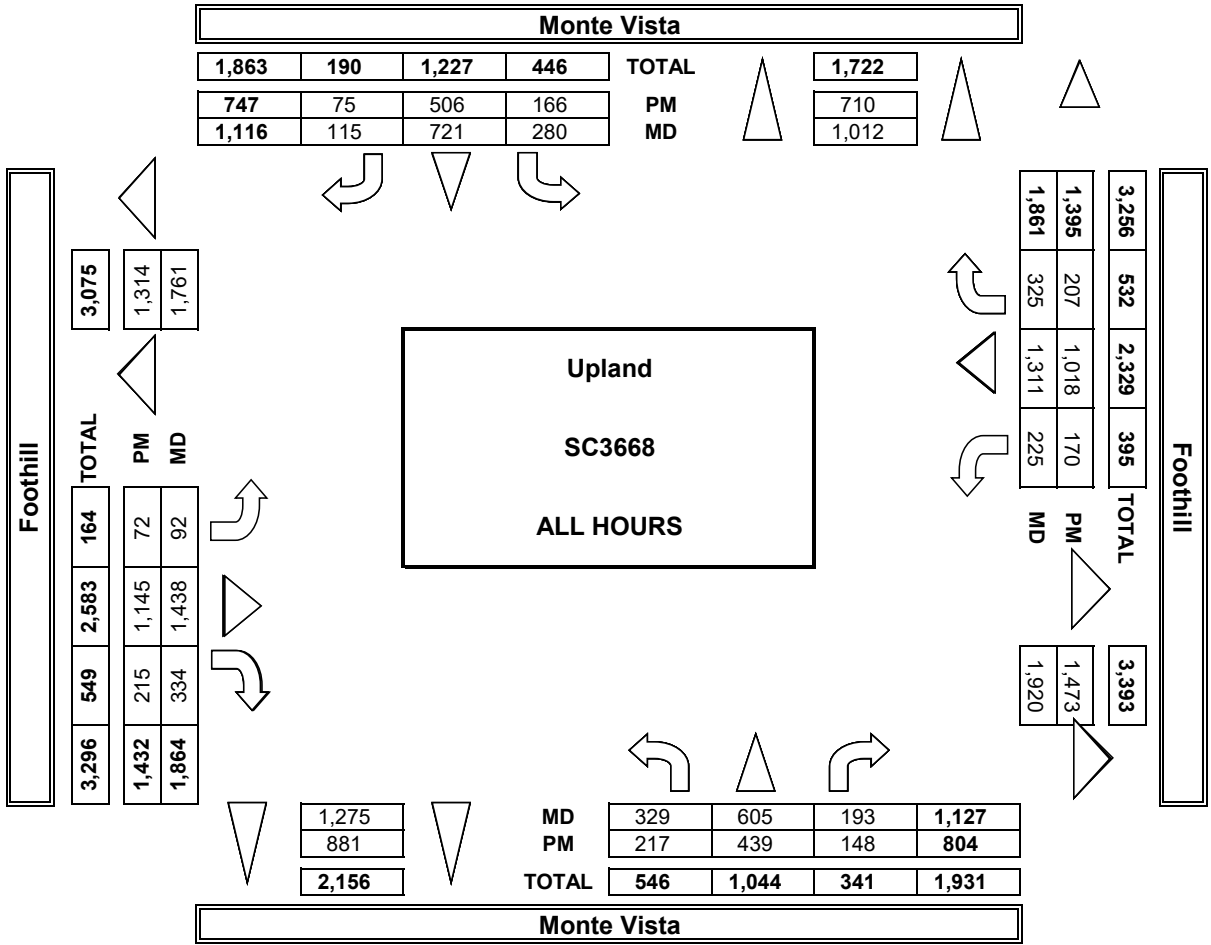


MD	11:00 AM				
	11:15 AM				
	11:30 AM				
	11:45 AM				
	12:00 PM				
	12:15 PM				
	12:30 PM				
	12:45 PM				
	1:00 PM				
	1:15 PM				
TOTAL					
PM	3:00 PM				
	3:15 PM				
	3:30 PM				
	3:45 PM				
	4:00 PM				
	4:15 PM				
	4:30 PM				
	4:45 PM				
TOTAL					

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	1	0	1	4
0	0	0	0	0
2	1	0	0	3
1	0	1	1	3
1	0	1	1	3
0	1	0	0	1
0	2	0	0	2
0	2	0	0	2
3	7	0	0	10
0	0	0	0	0
9	14	2	3	28
0	0	0	1	1
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
3	2	0	0	5
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
5	3	0	1	9

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	1	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	4	0	0	4
0	0	0	0	0
0	6	0	1	7
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	1	0	0	2
0	0	0	0	0
2	1	0	0	3

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Thu, Apr 13, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

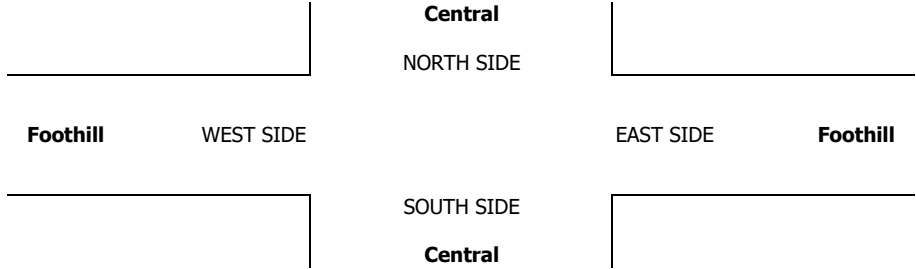
Claremont
Central
Foothill

PROJECT #: SC3943
LOCATION #: 21
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Central			Central			Foothill			Foothill			
	NL 1,3	NT 0,3	NR 1,3	SL 0	ST 1	SR 0	EL 1	ET 2	ER 1	WL 2	WT 2	WR 0	

AM	7:00 AM	23	0	18	0	0	0	40	10	40	154	0	285	
	7:15 AM	20	0	15	0	0	0	64	16	31	170	0	317	
	7:30 AM	37	0	37	0	0	0	87	17	43	217	0	439	
	7:45 AM	29	0	39	0	0	1	127	32	39	275	0	544	
	8:00 AM	36	0	29	0	0	0	113	23	48	196	0	445	
	8:15 AM	31	0	32	0	0	0	126	24	38	175	0	427	
	8:30 AM	18	0	32	0	0	0	106	20	42	148	0	366	
	8:45 AM	24	0	35	0	0	0	103	19	37	161	0	380	
	VOLUMES	218	0	237	0	0	1	6	766	161	318	1,496	0	3,203
	APPROACH %	48%	0%	52%	0%	0%	100%	1%	82%	17%	18%	82%	0%	0%
APP/DEPART	455	/	1	1	/	479	933	/	1,003	1,814	/	1,720	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	133	0	137	0	0	1	4	453	96	168	863	0	1,855	
APPROACH %	49%	0%	51%	0%	0%	100%	1%	82%	17%	16%	84%	0%	0%	
PEAK HR FACTOR	0.912			0.250			0.859			0.821			0.852	
APP/DEPART	270	/	1	1	/	264	553	/	590	1,031	/	1,000	0	
PM	4:00 PM	28	0	87	0	0	0	243	31	48	104	0	541	
	4:15 PM	19	0	64	0	0	1	259	35	42	127	1	551	
	4:30 PM	29	0	59	0	0	0	247	36	44	146	0	562	
	4:45 PM	30	0	81	0	0	0	245	35	57	173	0	623	
	5:00 PM	36	0	102	0	0	0	249	42	49	156	0	634	
	5:15 PM	29	1	89	0	2	0	230	46	64	178	1	641	
	5:30 PM	36	0	93	0	1	0	211	28	43	147	0	561	
	5:45 PM	23	0	65	0	0	0	215	42	43	151	0	541	
	VOLUMES	230	1	640	0	3	1	11	1,899	295	390	1,182	2	4,654
	APPROACH %	26%	0%	73%	0%	75%	25%	0%	86%	13%	25%	75%	0%	0%
APP/DEPART	871	/	4	4	/	687	2,205	/	2,540	1,574	/	1,423	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	124	1	331	0	2	0	4	971	159	214	653	1	2,460	
APPROACH %	27%	0%	73%	0%	100%	0%	0%	86%	14%	25%	75%	0%	0%	
PEAK HR FACTOR	0.826			0.250			0.974			0.893			0.959	
APP/DEPART	456	/	2	2	/	374	1,134	/	1,303	868	/	781	0	

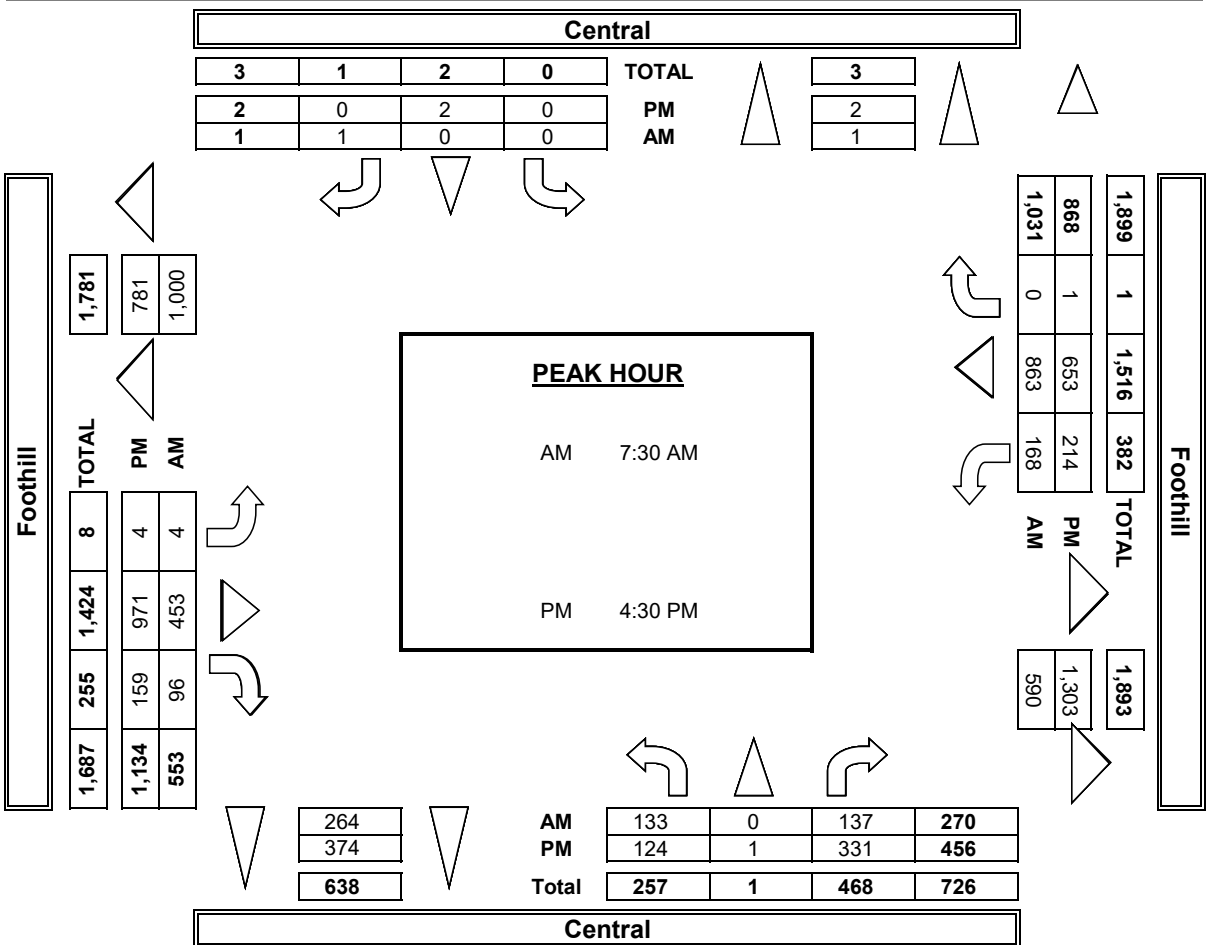
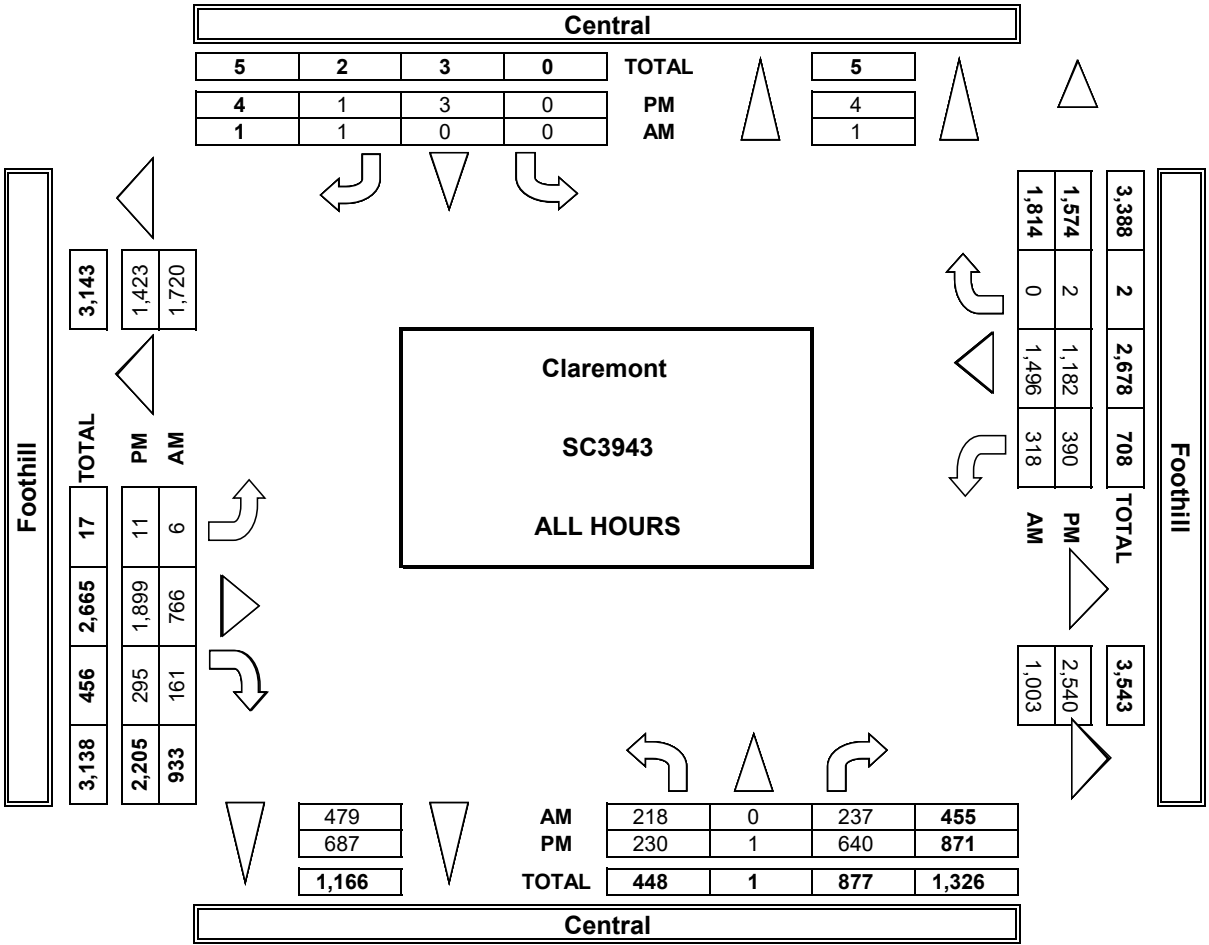


AM	7:00 AM	0	0	0	1	1
	7:15 AM	0	0	0	0	0
	7:30 AM	1	0	0	0	1
	7:45 AM	0	0	0	0	0
	8:00 AM	0	1	0	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	2	0	0	2
	8:45 AM	0	0	0	0	0
TOTAL	1	3	0	1	5	
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	1	0	0	1
	5:00 PM	1	0	0	0	1
	5:15 PM	0	1	0	0	1
	5:30 PM	0	2	0	0	2
	5:45 PM	0	0	0	0	0
TOTAL	1	4	0	0	5	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	1	1
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
1	3	0	1	5
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
1	0	0	0	1
0	1	0	0	1
0	2	0	0	2
0	0	0	0	0
1	4	0	0	5

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	3	0	1	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	2	0	0	2

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

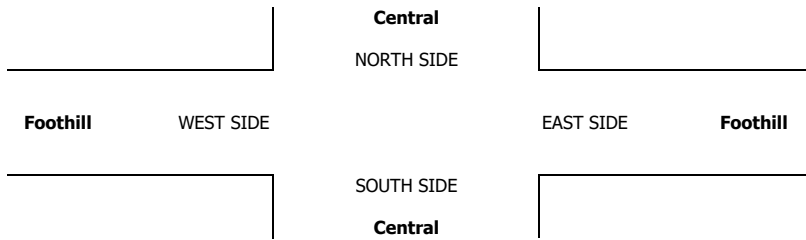
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Sat, Apr 15, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Claremont Central Foothill	PROJECT #: SC3943 LOCATION #: 21 CONTROL: SIGNAL
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NOTES:	AM PM MD OTHER OTHER	◀ W E ▶	▲ N S ▼
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Central	Central	Central	Central	Central	Central	Foothill	Foothill	Foothill	Foothill	Foothill		
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1.3	0.3	1.3	0	1	0	1	2	1	2	2	0	

MD	11:00 AM	23	0	66	1	0	0	2	142	34	47	152	0	467
	11:15 AM	38	0	63	0	0	0	1	162	42	65	150	0	521
	11:30 AM	22	0	47	0	0	0	5	176	40	47	158	0	495
	11:45 AM	50	0	61	0	0	0	7	163	44	61	170	0	556
	12:00 PM	43	0	71	0	0	0	3	173	34	65	133	0	522
	12:15 PM	26	0	61	0	0	0	1	169	33	56	153	0	499
	12:30 PM	49	0	67	0	0	0	5	190	39	61	179	0	590
	12:45 PM	32	0	82	0	1	0	0	172	42	63	155	1	548
	1:00 PM	35	0	63	1	0	0	5	181	34	63	163	0	545
	1:15 PM	37	0	75	0	0	0	4	173	37	68	170	0	564
	1:30 PM	39	0	75	0	0	0	2	191	37	65	171	0	580
	1:45 PM	30	0	82	0	0	0	3	182	35	57	187	0	576
	VOLUMES	424	0	813	2	1	0	38	2,074	451	718	1,941	1	6,463
	APPROACH %	34%	0%	66%	67%	33%	0%	1%	81%	18%	27%	73%	0%	
APP/DEPART	1,237	/	1	3	/	1,167	2,563	/	2,892	2,660	/	2,403	0	
BEGIN PEAK HR	1:00 PM													
VOLUMES	141	0	295	1	0	0	14	727	143	253	691	0	2,265	
APPROACH %	32%	0%	68%	100%	0%	0%	2%	82%	16%	27%	73%	0%		
PEAK HR FACTOR	0.956			0.250			0.961			0.967			0.976	
APP/DEPART	436	/	0	1	/	395	884	/	1,024	944	/	846	0	
PM	02:00 PM	34	0	67	0	0	0	2	170	38	66	169	0	546
	2:15 PM	38	0	80	0	0	2	6	166	37	51	186	0	566
	2:30 PM	31	0	77	0	0	0	1	191	43	68	165	0	576
	2:45 PM	35	0	59	0	0	0	4	196	35	58	134	0	521
	3:00 PM	22	0	76	0	0	1	6	163	31	52	139	0	490
	3:15 PM	31	0	66	0	0	0	5	172	28	42	129	0	473
	3:30 PM	32	0	66	0	0	0	5	176	28	49	131	0	487
	3:45 PM	27	0	99	0	1	0	1	166	24	66	149	2	535
	4:00 PM	32	0	61	0	0	0	6	184	20	54	125	0	482
	4:15 PM	27	0	77	0	0	0	3	208	31	51	132	0	529
	4:30 PM	19	0	66	1	0	2	6	201	27	35	130	0	487
	4:45 PM	22	0	68	0	0	0	5	186	30	48	136	0	495
	VOLUMES	350	0	862	1	1	5	50	2,179	372	640	1,725	2	6,187
	APPROACH %	29%	0%	71%	14%	14%	71%	2%	84%	14%	27%	73%	0%	
APP/DEPART	1,212	/	2	7	/	1,007	2,601	/	3,049	2,367	/	2,129	0	
BEGIN PEAK HR	2:00 PM													
VOLUMES	138	0	283	0	0	2	13	723	153	243	654	0	2,209	
APPROACH %	33%	0%	67%	0%	0%	100%	1%	81%	17%	27%	73%	0%		
PEAK HR FACTOR	0.892			0.250			0.946			0.946			0.959	
APP/DEPART	421	/	0	2	/	394	889	/	1,008	897	/	807	0	

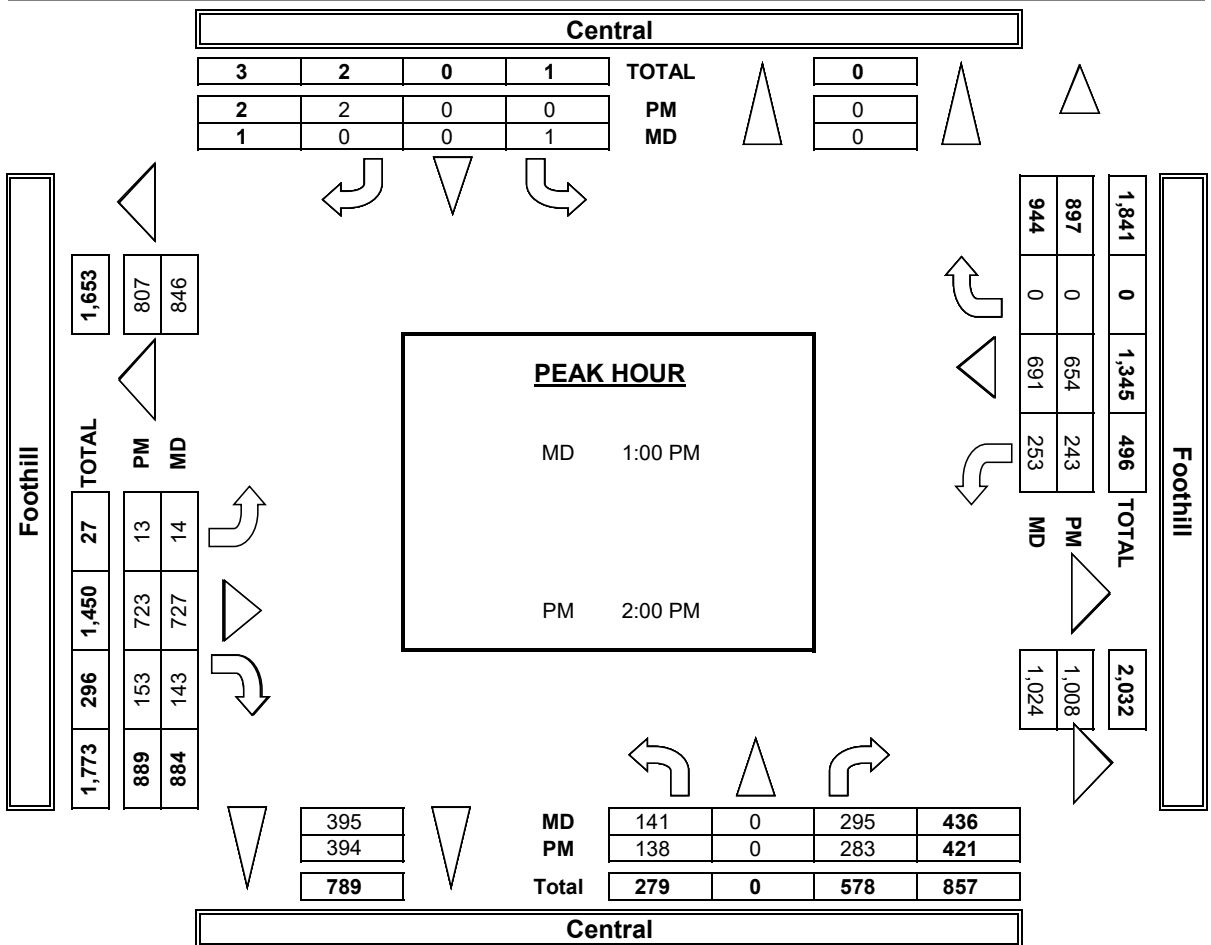
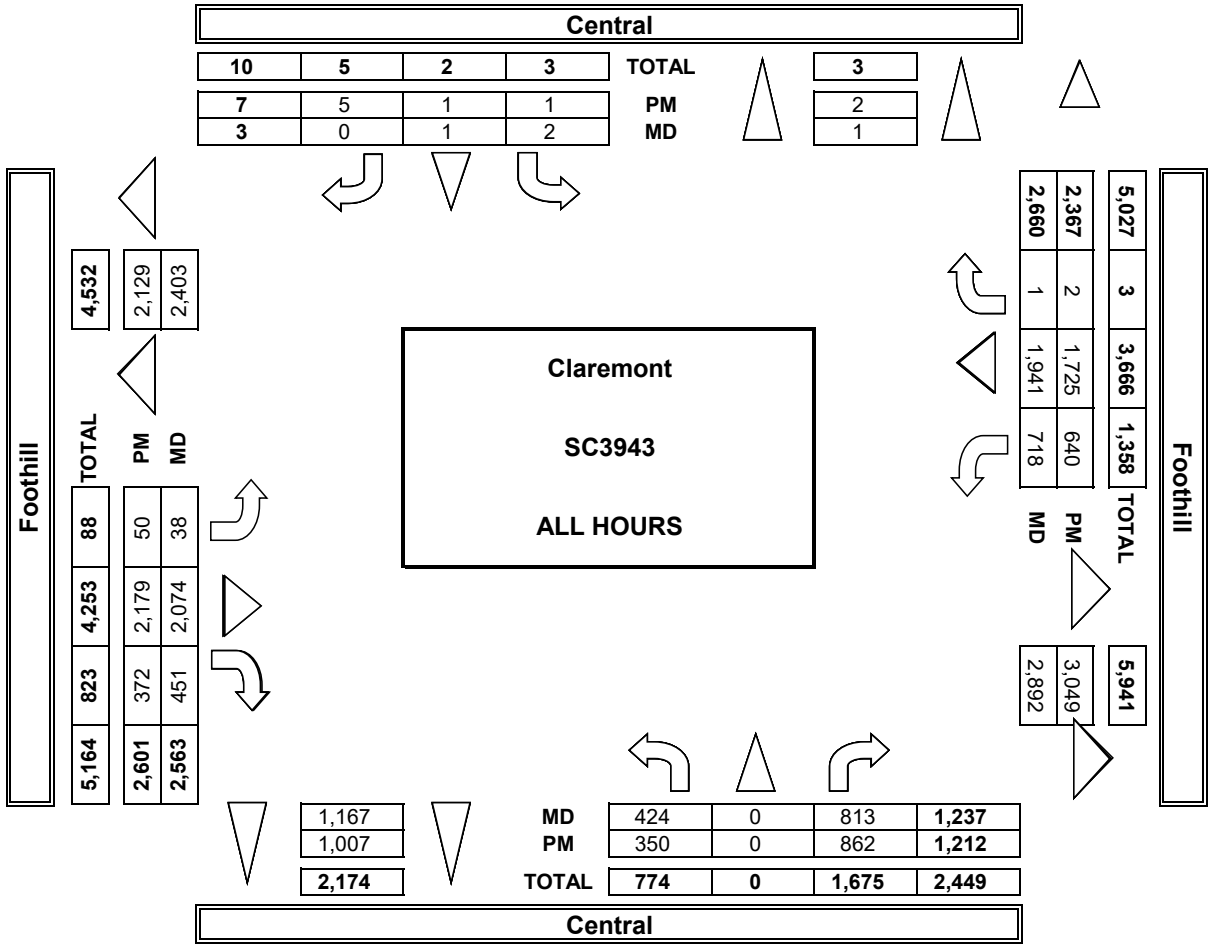


MD	11:00 AM	0	2	0	0	2
	11:15 AM	0	0	0	0	0
	11:30 AM	0	0	0	0	0
	11:45 AM	0	2	0	0	2
	12:00 PM	0	3	0	1	4
	12:15 PM	2	1	0	1	4
	12:30 PM	1	2	0	1	4
	12:45 PM	2	2	0	2	6
	1:00 PM	1	1	0	1	3
	1:15 PM	1	1	0	0	2
	1:30 PM	2	1	1	1	5
	1:45 PM	1	0	0	0	1
	TOTAL	10	15	1	7	33
	PM	2:00 PM	1	3	0	0
2:15 PM		2	0	0	2	4
2:30 PM		0	1	0	0	1
2:45 PM		0	0	0	0	0
3:00 PM		0	0	0	0	0
3:15 PM		1	0	0	0	1
3:30 PM		1	0	0	0	1
3:45 PM		0	0	0	0	0
4:00 PM		0	3	0	0	3
4:15 PM		0	0	0	0	0
4:30 PM	2	0	0	0	2	
4:45 PM	0	0	0	0	0	
TOTAL	7	7	0	2	16	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	3	0	1	4
2	1	0	1	4
1	2	0	1	4
2	2	0	2	6
1	1	0	1	3
1	1	0	0	2
2	1	1	1	5
1	0	0	0	1
10	15	1	7	33
1	3	0	0	4
2	0	0	2	4
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
0	3	0	0	3
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
7	7	0	2	16

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	1	2
0	1	0	0	1
1	1	0	1	3
1	1	0	2	4
1	0	0	1	2
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
4	4	0	6	14
0	2	0	0	2
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	4	0	2	6

AimTD LLC
TURNING MOVEMENT COUNTS



**6th St & Indian Hill Blvd
Claremont California
Thursday, January 25, 2024**

Time	Southbound Indian Hill Blvd						Westbound 6th St						Northbound Indian Hill Blvd						Eastbound 6th St						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:00 AM	0	3	68	0	3	71	0	2	1	2	2	5	0	3	45	0	0	48	0	1	0	0	1	1	125
7:15 AM	0	2	93	2	0	97	0	4	0	2	0	6	0	0	47	1	0	48	0	0	1	0	0	1	152
7:30 AM	0	2	109	0	1	111	0	2	3	0	0	5	0	1	88	1	0	90	0	0	2	1	1	3	209
7:45 AM	0	2	138	0	0	140	0	1	3	5	2	9	0	0	151	5	0	156	0	0	1	1	0	2	307
Hourly Total	0	9	408	2	4	419	0	9	7	9	4	25	0	4	331	7	0	342	0	1	4	2	2	7	793
8:00 AM	0	4	164	2	0	170	0	0	0	9	0	9	0	1	186	12	0	199	0	0	2	1	7	3	381
8:15 AM	0	9	177	0	0	186	0	1	1	4	1	6	0	2	135	4	0	141	0	0	2	0	1	2	335
8:30 AM	0	6	167	0	0	173	0	4	1	3	0	8	0	0	78	4	0	82	0	0	1	1	1	2	265
8:45 AM	0	3	123	3	0	129	0	4	1	3	0	8	0	0	79	2	1	81	0	0	1	1	0	2	220
Hourly Total	0	22	631	5	0	658	0	9	3	19	1	31	0	3	478	22	1	503	0	0	6	3	9	9	1201
4:00 PM	0	4	107	2	0	113	0	1	1	5	2	7	0	1	145	8	0	154	0	1	0	1	2	2	276
4:15 PM	0	2	143	0	9	145	0	4	1	6	0	11	0	1	150	5	2	156	0	0	0	1	6	1	313
4:30 PM	0	5	90	1	0	96	0	4	4	9	6	17	0	2	132	4	5	138	0	0	3	1	0	4	255
4:45 PM	0	6	117	0	0	123	0	3	1	9	10	13	0	3	134	3	1	140	0	3	3	2	12	8	284
Hourly Total	0	17	457	3	9	477	0	12	7	29	18	48	0	7	561	20	8	588	0	4	6	5	20	15	1128
5:00 PM	0	3	108	0	1	111	0	8	0	13	1	21	0	1	163	4	4	168	0	1	1	1	1	3	303
5:15 PM	0	1	92	0	0	93	0	3	1	5	5	9	0	1	122	5	4	128	0	1	3	0	2	4	234
5:30 PM	0	8	78	0	0	86	0	0	2	7	0	9	0	1	143	5	0	149	0	0	1	2	3	3	247
5:45 PM	0	2	107	1	0	110	0	3	1	2	3	6	0	1	144	2	1	147	0	1	3	2	2	6	269
Hourly Total	0	14	385	1	1	400	0	14	4	27	9	45	0	4	572	16	9	592	0	3	8	5	8	16	1053
4 Hours TOTAL	0	62	1881	11	14	1954	0	44	21	84	32	149	0	18	1942	65	18	2025	0	8	24	15	39	47	4175
Cars	0	62	1868	10	14	1940	0	43	21	83	32	147	0	18	1930	64	18	2012	0	7	24	15	36	46	4145
Heavy Vehicles	0	0	13	1	0	14	0	1	0	1	0	2	0	0	12	1	0	13	0	1	0	0	3	1	30
Heavy Vehicle %	0.00%	0.00%	0.69%	9.09%	0.00%	0.72%	0.00%	2.27%	0.00%	1.19%	0.00%	1.34%	0.00%	0.00%	0.62%	1.54%	0.00%	0.64%	0.00%	12.50%	0.00%	0.00%	7.69%	2.13%	0.72%

**6th St & Indian Hill Blvd
Claremont California
Thursday, January 25, 2024
AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:45 AM	0	2	138	0	0	140	0	1	3	5	2	9	0	0	151	5	0	156	0	0	1	1	0	2	307
8:00 AM	0	4	164	2	0	170	0	0	0	9	0	9	0	1	186	12	0	199	0	0	2	1	7	3	381
8:15 AM	0	9	177	0	0	186	0	1	1	4	1	6	0	2	135	4	0	141	0	0	2	0	1	2	335
8:30 AM	0	6	167	0	0	173	0	4	1	3	0	8	0	0	78	4	0	82	0	0	1	1	1	2	265
Peak Hour Total	0	21	646	2	0	669	0	6	5	21	3	32	0	3	550	25	0	578	0	0	6	3	9	9	1288
PHF	0.000	0.583	0.912	0.250	0.000	0.899	0.000	0.375	0.417	0.583	0.375	0.889	0.000	0.375	0.739	0.521	0.000	0.726	0.000	0.000	0.750	0.750	0.321	0.750	0.845

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:15 PM	0	2	143	0	9	145	0	4	1	6	0	11	0	1	150	5	2	156	0	0	0	1	6	1	313
4:30 PM	0	5	90	1	0	96	0	4	4	9	6	17	0	2	132	4	5	138	0	0	3	1	0	4	255
4:45 PM	0	6	117	0	0	123	0	3	1	9	10	13	0	3	134	3	1	140	0	3	3	2	12	8	284
5:00 PM	0	3	108	0	1	111	0	8	0	13	1	21	0	1	163	4	4	168	0	1	1	1	1	3	303
Peak Hour Total	0	16	458	1	10	475	0	19	6	37	17	62	0	7	579	16	12	602	0	4	7	5	19	16	1155
PHF	0.000	0.667	0.801	0.250	0.278	0.819	0.000	0.594	0.375	0.712	0.425	0.738	0.000	0.583	0.888	0.800	0.600	0.896	0.000	0.333	0.583	0.625	0.396	0.500	0.923

Total Vehicles On Leg	3988
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Vehicles Entering Intersection 1954			Vehicles Exiting Intersection 2034		
Southbound					
Cars	10	1868	62	0	14
Heavy	1	13	0	0	0
Total	11	1881	62	0	14



Total Vehicles on Leg 97	Vehicles Entering Intersection 47	Eastbound	Cars	Heavy	Total
			36	3	39
			0	0	0
			7	1	8
			24	0	24
			15	0	15
			Vehicles Exiting Intersection 50		



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 149	Total Vehicles on Leg 300
83	1	84			
21	0	21			
43	1	44			
0	0	0			
32	0	32			
			Vehicles Exiting Intersection 151		



4 Hour Volumes

Cars	18	0	18	1930	64
Heavy	0	0	0	12	1
Total	18	0	18	1942	65
Northbound					
Vehicles Entering Intersection 2025			Vehicles Exiting Intersection 1940		
Total Vehicles On Leg			3965		



**6th St & Indian Hill Blvd
Claremont California
Saturday, January 27, 2024**

Time	Southbound Indian Hill Blvd						Westbound 6th St						Northbound Indian Hill Blvd						Eastbound 6th St						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	6	120	2	0	128	0	4	0	5	5	9	0	2	137	2	2	141	0	0	0	2	1	2	280
11:15 AM	0	2	110	1	0	113	0	2	2	5	4	9	0	0	132	4	3	136	0	0	1	5	3	6	264
11:30 AM	0	4	119	2	2	125	0	6	2	13	0	21	0	1	126	4	0	131	0	0	0	1	1	1	278
11:45 AM	0	4	140	1	0	145	0	4	0	7	5	11	0	0	130	5	2	135	0	0	1	1	4	2	293
Hourly Total	0	16	489	6	2	511	0	16	4	30	14	50	0	3	525	15	7	543	0	0	2	9	9	11	1115
12:00 PM	0	1	133	0	0	134	0	3	0	3	4	6	0	3	138	3	0	144	0	1	1	1	0	3	287
12:15 PM	0	3	118	0	0	121	0	7	1	9	5	17	0	0	125	2	0	127	0	0	1	0	5	1	266
12:30 PM	0	4	129	2	0	135	0	2	1	2	2	5	0	2	125	2	0	129	0	1	1	1	4	3	272
12:45 PM	0	2	122	0	0	124	0	8	3	8	1	19	0	3	153	1	0	157	0	2	0	2	4	4	304
Hourly Total	0	10	502	2	0	514	0	20	5	22	12	47	0	8	541	8	0	557	0	4	3	4	13	11	1129
1:00 PM	0	3	103	0	0	106	0	5	2	13	2	20	0	0	153	4	0	157	0	1	0	1	4	2	285
1:15 PM	0	2	124	0	0	126	0	3	0	12	3	15	0	2	121	5	2	128	0	0	0	0	0	0	269
1:30 PM	0	2	126	0	0	128	0	3	0	9	1	12	0	1	149	5	2	155	0	0	0	0	2	0	295
1:45 PM	0	7	123	0	1	130	0	4	2	6	2	12	0	1	145	7	0	153	0	0	0	1	0	1	296
Hourly Total	0	14	476	0	1	490	0	15	4	40	8	59	0	4	568	21	4	593	0	1	0	2	6	3	1145
2:00 PM	0	6	100	0	0	106	0	7	1	8	0	16	0	0	137	8	0	145	0	0	1	1	3	2	269
2:15 PM	0	2	87	1	0	90	0	2	1	10	2	13	0	0	143	5	0	148	0	0	1	0	3	1	252
2:30 PM	0	3	109	0	1	112	0	12	2	10	4	24	0	0	124	5	2	129	0	0	2	0	1	2	267
2:45 PM	0	2	94	0	0	96	0	2	2	10	1	14	0	0	151	3	0	154	0	0	0	2	3	2	266
Hourly Total	0	13	390	1	1	404	0	23	6	38	7	67	0	0	555	21	2	576	0	0	4	3	10	7	1054
4 Hours TOTAL	0	53	1857	9	4	1919	0	74	19	130	41	223	0	15	2189	65	13	2269	0	5	9	18	38	32	4443
Cars	0	53	1852	9	4	1914	0	74	19	129	39	222	0	15	2179	64	13	2258	0	5	9	18	32	32	4426
Heavy Vehicles	0	0	5	0	0	5	0	0	0	1	2	1	0	0	10	1	0	11	0	0	0	0	6	0	17
Heavy Vehicle %	0.00%	0.00%	0.27%	0.00%	0.00%	0.26%	0.00%	0.00%	0.00%	0.77%	4.88%	0.45%	0.00%	0.00%	0.46%	1.54%	0.00%	0.48%	0.00%	0.00%	0.00%	0.00%	15.79%	0.00%	0.38%

**6th St & Indian Hill Blvd
Claremont California
Saturday, January 27, 2024
AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	6	120	2	0	128	0	4	0	5	5	9	0	2	137	2	2	141	0	0	0	2	1	2	280
11:15 AM	0	2	110	1	0	113	0	2	2	5	4	9	0	0	132	4	3	136	0	0	1	5	3	6	264
11:30 AM	0	4	119	2	2	125	0	6	2	13	0	21	0	1	126	4	0	131	0	0	0	1	1	1	278
11:45 AM	0	4	140	1	0	145	0	4	0	7	5	11	0	0	130	5	2	135	0	0	1	1	4	2	293
Peak Hour Total	0	16	489	6	2	511	0	16	4	30	14	50	0	3	525	15	7	543	0	0	2	9	9	11	1115
PHF	0.000	0.667	0.873	0.750	0.250	0.881	0.000	0.667	0.500	0.577	0.700	0.595	0.000	0.375	0.958	0.750	0.583	0.963	0.000	0.000	0.500	0.450	0.563	0.458	0.951

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
12:45 PM	0	2	122	0	0	124	0	8	3	8	1	19	0	3	153	1	0	157	0	2	0	2	4	4	304
1:00 PM	0	3	103	0	0	106	0	5	2	13	2	20	0	0	153	4	0	157	0	1	0	1	4	2	285
1:15 PM	0	2	124	0	0	126	0	3	0	12	3	15	0	2	121	5	2	128	0	0	0	0	0	0	269
1:30 PM	0	2	126	0	0	128	0	3	0	9	1	12	0	1	149	5	2	155	0	0	0	0	2	0	295
Peak Hour Total	0	9	475	0	0	484	0	19	5	42	7	66	0	6	576	15	4	597	0	3	0	3	10	6	1153
PHF	0.000	0.750	0.942	0.000	0.000	0.945	0.000	0.594	0.417	0.808	0.583	0.825	0.000	0.500	0.941	0.750	0.500	0.951	0.000	0.375	0.000	0.375	0.625	0.375	0.948

Total Vehicles On Leg 4243

Vehicles Entering Intersection			Vehicles Exiting Intersection		
1919			2324		
Southbound					
Cars	9	1852	53	0	4
Heavy	0	5	0	0	0
Total	9	1857	53	0	4



Total Vehicles on Leg 75	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	32		6	38	
	0		0	0	
	5		0	5	
	9		0	9	
	Vehicles Exiting Intersection		43	18	0



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 350
129	1	130		223	
19	0	19			
74	0	74			
0	0	0		Vehicles Exiting Intersection	
39	2	41		127	



4 Hour Volumes

Cars	13	0	15	2179	64
Heavy	0	0	0	10	1
Total	13	0	15	2189	65
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
2269			1949		
Total Vehicles On Leg			4218		



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Thu, Apr 13, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

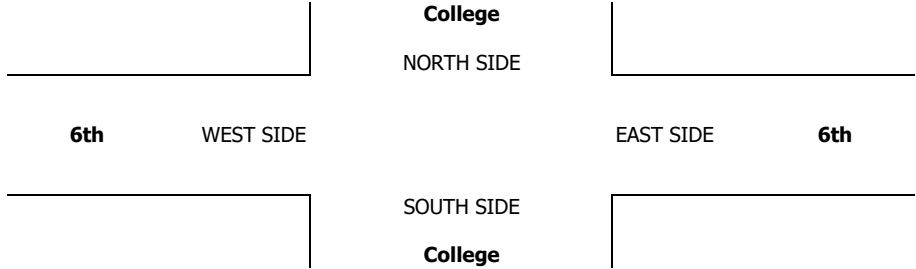
Claremont
College
6th

PROJECT #: SC3943
LOCATION #: 4
CONTROL: STOP ALL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	College	College	6th	College	College	6th	6th	6th	6th	6th	6th		
	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	

AM	7:00 AM	1	14	5	2	17	1	4	3	0	3	8	4	62
	7:15 AM	0	26	3	1	13	4	0	4	0	9	15	2	77
	7:30 AM	0	21	5	0	20	0	0	11	0	8	20	2	87
	7:45 AM	5	65	10	5	40	1	1	15	0	11	25	7	185
	8:00 AM	2	63	13	5	41	4	5	15	5	15	15	4	187
	8:15 AM	2	32	11	4	45	6	5	11	3	8	13	5	145
	8:30 AM	1	34	16	4	26	1	6	11	1	11	17	1	129
	8:45 AM	2	50	15	1	17	5	1	10	0	14	12	4	131
	VOLUMES	13	305	78	22	219	22	22	80	9	79	125	29	1,003
	APPROACH %	3%	77%	20%	8%	83%	8%	20%	72%	8%	34%	54%	12%	
APP/DEPART	396	/	356	263	/	307	111	/	180	233	/	160	0	
BEGIN PEAK HR	7:45 AM													
VOLUMES	10	194	50	18	152	12	17	52	9	45	70	17	646	
APPROACH %	4%	76%	20%	10%	84%	7%	22%	67%	12%	34%	53%	13%		
PEAK HR FACTOR	0.794			0.827			0.780			0.767			0.864	
APP/DEPART	254	/	228	182	/	206	78	/	120	132	/	92	0	
PM	4:00 PM	2	45	18	6	38	3	3	30	3	10	25	3	186
	4:15 PM	10	31	16	4	43	1	2	25	2	15	17	4	170
	4:30 PM	8	34	19	4	33	5	3	34	3	11	19	4	177
	4:45 PM	5	36	25	9	43	3	0	13	1	19	19	7	180
	5:00 PM	2	37	17	4	54	4	1	31	4	23	23	8	208
	5:15 PM	6	28	13	4	51	6	4	17	1	12	17	3	162
	5:30 PM	2	44	17	3	50	1	3	22	0	20	27	3	192
	5:45 PM	1	44	16	8	43	4	2	14	0	13	18	4	167
	VOLUMES	36	299	141	42	355	27	18	186	14	123	165	36	1,442
	APPROACH %	8%	63%	30%	10%	84%	6%	8%	85%	6%	38%	51%	11%	
APP/DEPART	476	/	353	424	/	492	218	/	369	324	/	228	0	
BEGIN PEAK HR	4:45 PM													
VOLUMES	15	145	72	20	198	14	8	83	6	74	86	21	742	
APPROACH %	6%	63%	31%	9%	85%	6%	8%	86%	6%	41%	48%	12%		
PEAK HR FACTOR	0.879			0.935			0.674			0.838			0.892	
APP/DEPART	232	/	174	232	/	278	97	/	175	181	/	115	0	

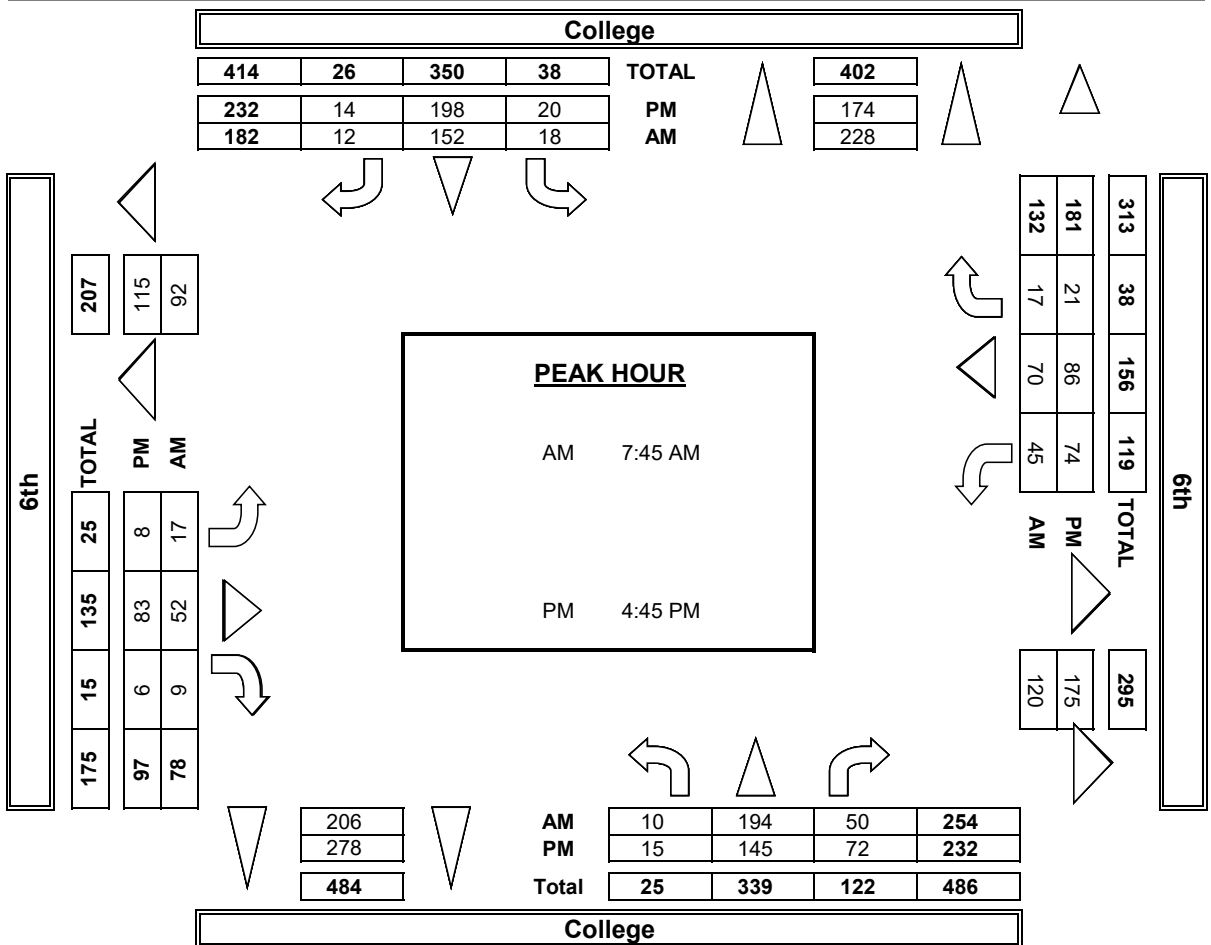
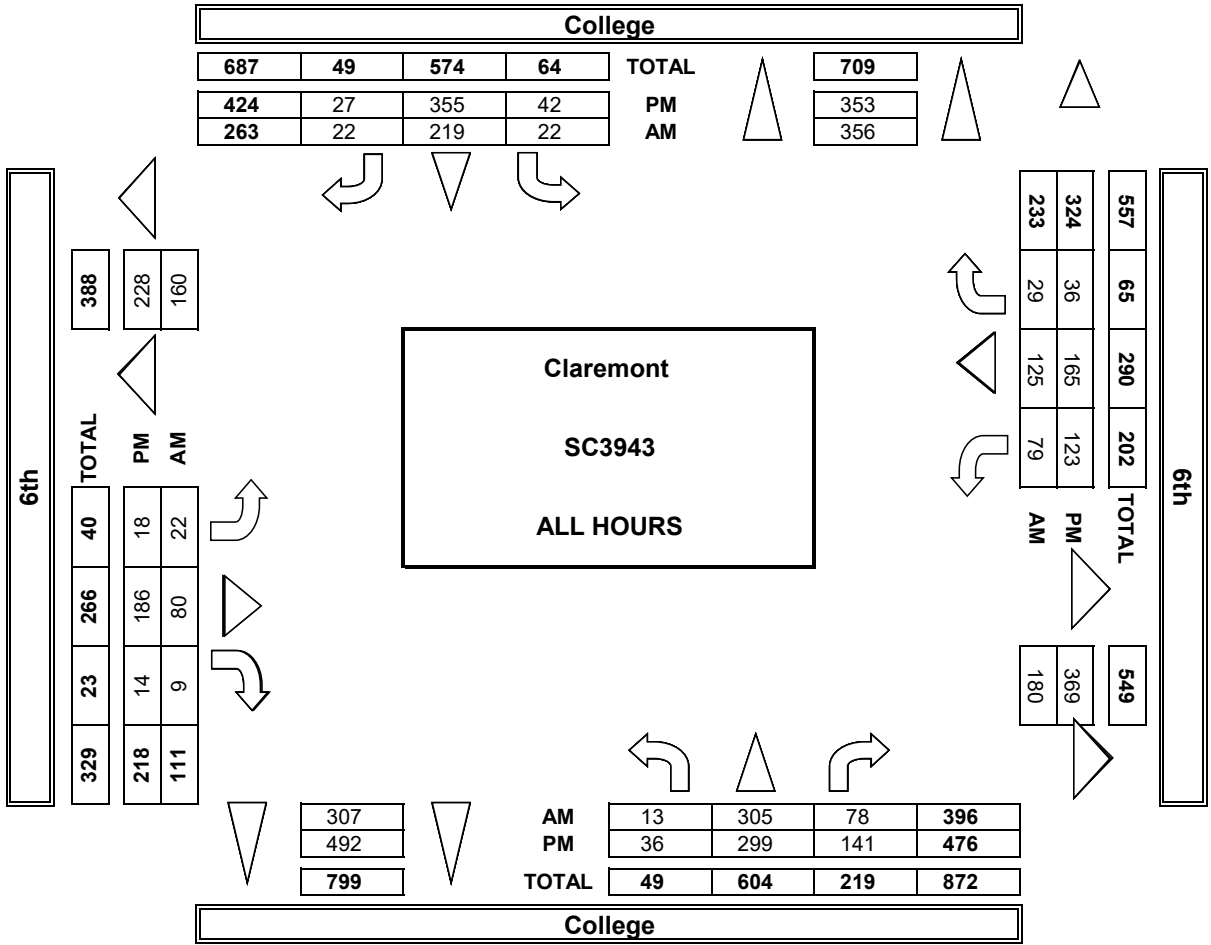


AM	7:00 AM	6	4	0	1	11
	7:15 AM	0	0	3	2	5
	7:30 AM	5	1	1	2	9
	7:45 AM	5	6	6	1	18
	8:00 AM	8	16	11	2	37
	8:15 AM	5	1	3	2	11
	8:30 AM	2	11	8	6	27
	8:45 AM	7	6	6	5	24
TOTAL	38	45	38	21	142	
PM	4:00 PM	28	81	25	32	166
	4:15 PM	12	16	8	18	54
	4:30 PM	14	13	8	11	46
	4:45 PM	10	3	10	8	31
	5:00 PM	12	6	14	8	40
	5:15 PM	8	12	9	10	39
	5:30 PM	9	2	6	6	23
	5:45 PM	6	8	10	5	29
TOTAL	99	141	90	98	428	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
6	4	0	1	11
0	0	3	2	5
5	1	1	2	9
5	6	6	1	18
8	16	11	2	37
5	1	3	2	11
2	11	8	6	27
7	6	6	5	24
38	45	38	21	142
28	81	25	32	166
12	16	8	18	54
14	13	8	11	46
10	3	10	8	31
12	6	14	8	40
8	12	9	10	39
9	2	6	6	23
6	8	10	5	29
99	141	90	98	428

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
6	4	0	1	11
0	0	3	2	5
5	1	1	2	9
5	5	6	1	17
5	14	11	2	32
3	1	2	2	8
2	11	7	6	26
7	6	5	3	21
33	42	35	19	129
26	77	25	29	157
10	15	8	18	51
13	13	8	8	42
10	3	10	7	30
12	6	12	6	36
8	12	7	10	37
9	2	6	6	23
6	8	9	4	27
94	136	85	88	403

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

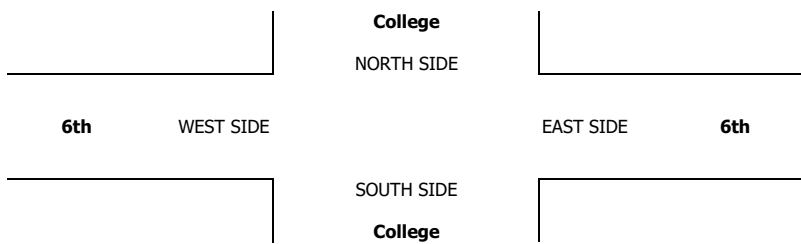
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Sat, Apr 15, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Claremont College 6th	PROJECT #: SC3943 LOCATION #: 4 CONTROL: STOP ALL
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NOTES:	AM PM MD OTHER OTHER	◀ W	▲ N ▼ S	E ▶
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LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	College	College	6th	College	College	6th	6th	6th	6th	6th	6th		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	1	0	0	1	0	

MD	11:00 AM	2	38	12	4	27	3	4	15	3	7	14	5	134
	11:15 AM	1	24	15	9	34	1	1	12	1	22	24	3	147
	11:30 AM	3	22	8	4	31	3	0	7	1	10	20	0	109
	11:45 AM	1	33	10	3	37	3	0	10	0	18	22	2	139
	12:00 PM	6	40	12	3	34	3	1	14	0	16	21	2	152
	12:15 PM	2	41	13	4	51	3	3	10	0	13	21	3	164
	12:30 PM	2	43	14	5	45	2	3	12	1	18	22	1	168
	12:45 PM	3	37	13	2	48	4	2	15	1	13	15	1	154
	1:00 PM	0	56	16	1	38	0	3	13	1	19	31	5	183
	1:15 PM	2	37	22	6	41	2	1	26	1	15	14	5	172
	1:30 PM	2	31	8	6	36	0	4	17	1	17	13	9	144
	1:45 PM	3	31	16	3	31	5	3	17	1	13	27	7	157
	VOLUMES	27	433	159	50	453	29	25	168	11	181	244	43	1,823
	APPROACH %	4%	70%	26%	9%	85%	5%	12%	82%	5%	39%	52%	9%	
	APP/DEPART	619	/	501	532	/	644	204	/	378	468	/	300	0
BEGIN PEAK HR	12:30 PM													
VOLUMES	7	173	65	14	172	8	9	66	4	65	82	12	677	
APPROACH %	3%	71%	27%	7%	89%	4%	11%	84%	5%	41%	52%	8%		
PEAK HR FACTOR		0.851			0.898			0.705			0.723		0.925	
APP/DEPART	245	/	194	194	/	241	79	/	145	159	/	97	0	
PM	02:00 PM	2	40	8	0	23	3	2	12	2	13	23	4	132
	2:15 PM	4	25	15	1	38	2	2	20	4	11	18	2	142
	2:30 PM	3	30	15	4	32	5	0	9	2	22	22	1	145
	2:45 PM	6	37	20	3	39	1	1	8	3	16	25	2	161
	3:00 PM	14	63	11	2	31	3	0	12	6	22	24	5	193
	3:15 PM	8	41	10	2	34	5	1	13	0	11	15	6	146
	3:30 PM	5	30	13	8	32	1	3	9	1	13	18	1	134
	3:45 PM	4	24	13	2	44	0	2	9	2	13	16	2	131
	4:00 PM	5	29	16	4	31	2	1	6	2	17	15	2	130
	4:15 PM	4	30	15	0	24	0	1	11	2	17	17	2	123
	4:30 PM	6	32	17	2	43	3	2	15	1	8	16	2	147
	4:45 PM	2	28	13	6	37	5	1	11	1	16	17	4	141
	VOLUMES	63	409	166	34	408	30	16	135	26	179	226	33	1,725
	APPROACH %	10%	64%	26%	7%	86%	6%	9%	76%	15%	41%	52%	8%	
	APP/DEPART	638	/	458	472	/	618	177	/	335	438	/	314	0
BEGIN PEAK HR	2:30 PM													
VOLUMES	31	171	56	11	136	14	2	42	11	71	86	14	645	
APPROACH %	12%	66%	22%	7%	84%	9%	4%	76%	20%	42%	50%	8%		
PEAK HR FACTOR		0.733			0.936			0.764			0.838		0.835	
APP/DEPART	258	/	187	161	/	219	55	/	109	171	/	130	0	

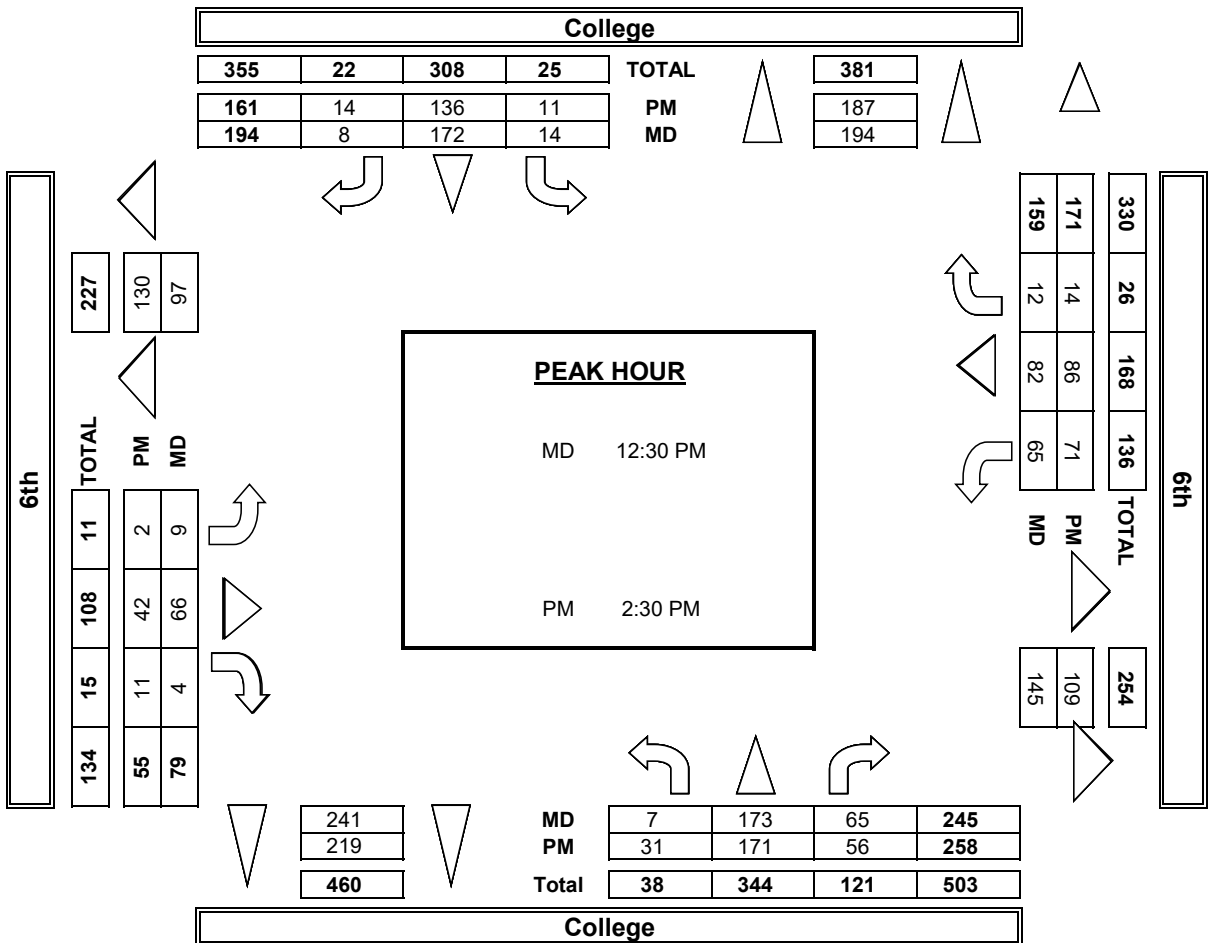
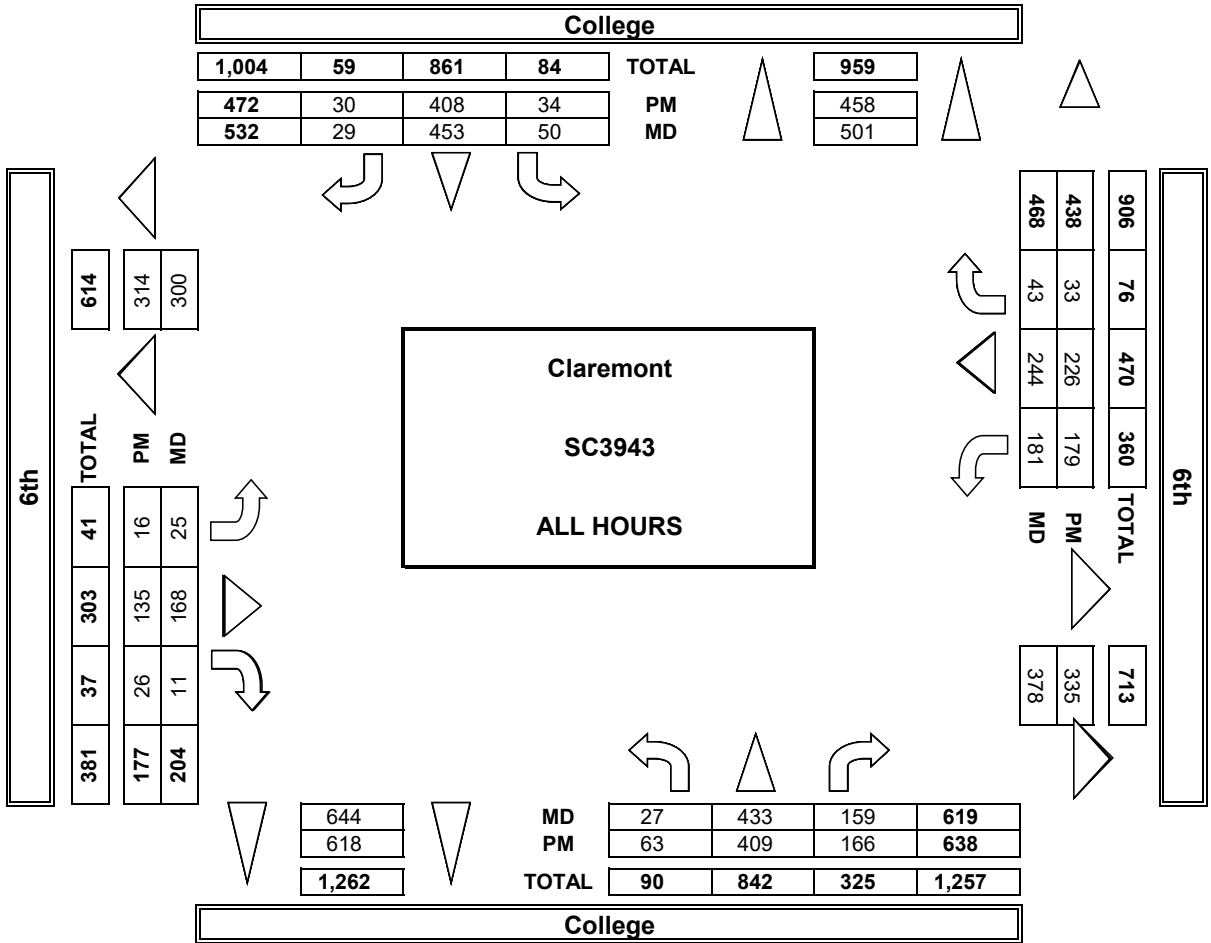


MD	11:00 AM	7	7	13	6	33	
	11:15 AM	6	10	9	4	29	
	11:30 AM	23	9	8	5	45	
	11:45 AM	13	6	3	4	26	
	12:00 PM	5	0	9	3	17	
	12:15 PM	28	5	6	7	46	
	12:30 PM	6	5	9	9	29	
	12:45 PM	6	12	11	7	36	
	1:00 PM	11	7	5	5	28	
	1:15 PM	5	5	4	14	28	
	1:30 PM	6	4	4	7	21	
	1:45 PM	6	18	7	14	45	
	TOTAL	122	88	88	85	383	
	PM	2:00 PM	4	5	3	5	17
		2:15 PM	2	6	7	17	32
2:30 PM		7	1	18	2	28	
2:45 PM		6	9	9	5	29	
3:00 PM		7	7	7	11	32	
3:15 PM		4	9	5	4	22	
3:30 PM		3	12	10	11	36	
3:45 PM		15	14	8	6	43	
4:00 PM		4	1	6	3	14	
4:15 PM		5	7	6	8	26	
4:30 PM		6	4	4	10	24	
4:45 PM		3	15	7	11	36	
TOTAL		66	90	90	93	339	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7	7	13	6	33
6	10	9	4	29
23	9	8	5	45
13	6	3	4	26
5	0	9	3	17
28	5	6	7	46
6	5	9	9	29
6	12	11	7	36
11	7	5	5	28
5	5	4	14	28
6	4	4	7	21
6	18	7	14	45
122	88	88	85	383
4	5	3	5	17
2	6	7	17	32
7	1	18	2	28
6	9	9	5	29
7	7	7	11	32
4	9	5	4	22
3	12	10	11	36
15	14	8	6	43
4	1	6	3	14
5	7	6	8	26
6	4	4	10	24
3	15	7	11	36
66	90	90	93	339

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
5	6	8	5	24
6	10	8	3	27
22	9	8	5	44
12	6	3	4	25
3	0	9	1	13
6	5	5	3	19
6	5	7	7	25
6	12	11	5	34
11	7	5	4	27
5	5	3	14	27
6	4	4	7	21
5	18	7	14	44
93	87	78	72	330
4	4	3	5	16
1	5	7	16	29
7	1	16	2	26
6	6	6	5	23
7	7	7	11	32
4	9	5	4	22
3	11	10	11	35
15	13	8	6	42
4	1	5	3	13
5	7	6	8	26
6	2	4	10	22
3	13	7	11	34
65	79	84	92	320

AimTD LLC
TURNING MOVEMENT COUNTS



Claremont
SC3943
ALL HOURS

PEAK HOUR

MD 12:30 PM

PM 2:30 PM

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Thu, Apr 13, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Claremont
Mills
6th

PROJECT #: SC3943
LOCATION #: 6
CONTROL: STOP ALL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	1	0	0	1	0	

AM	7:00 AM	5	0	2	0	0	1	0	7	1	5	28	2	51
	7:15 AM	4	1	1	0	0	0	0	11	2	1	19	1	40
	7:30 AM	0	0	1	0	0	0	0	12	1	4	36	0	54
	7:45 AM	2	0	2	0	1	1	0	20	1	1	65	0	93
	8:00 AM	6	0	3	0	0	0	1	21	5	4	47	0	87
	8:15 AM	5	0	1	1	0	0	1	19	4	4	33	0	68
	8:30 AM	0	0	2	0	0	0	0	18	2	4	40	0	66
	8:45 AM	1	2	2	0	1	0	0	20	7	2	40	1	76
	VOLUMES	23	3	14	1	2	2	2	128	23	25	308	4	535
	APPROACH %	58%	8%	35%	20%	40%	40%	1%	84%	15%	7%	91%	1%	
APP/DEPART	40	/	9	5	/	50	153	/	143	337	/	333	0	
BEGIN PEAK HR	7:45 AM													
VOLUMES	13	0	8	1	1	1	2	78	12	13	185	0	314	
APPROACH %	62%	0%	38%	33%	33%	33%	2%	85%	13%	7%	93%	0%		
PEAK HR FACTOR	0.583			0.375			0.852			0.750			0.844	
APP/DEPART	21	/	2	3	/	26	92	/	87	198	/	199	0	
PM	4:00 PM	2	0	2	0	0	0	1	50	13	8	38	1	115
	4:15 PM	3	0	2	1	0	1	1	61	8	8	52	3	140
	4:30 PM	2	1	4	0	0	1	0	64	4	6	45	3	130
	4:45 PM	5	1	5	2	2	0	1	53	6	6	35	0	116
	5:00 PM	6	0	2	1	0	1	0	84	11	2	43	1	151
	5:15 PM	5	0	3	0	0	0	1	54	7	2	44	0	116
	5:30 PM	6	0	2	3	0	0	2	51	1	1	50	2	118
	5:45 PM	2	0	4	2	0	2	1	39	4	2	35	0	91
	VOLUMES	31	2	24	9	2	5	7	456	54	35	342	10	977
	APPROACH %	54%	4%	42%	56%	13%	31%	1%	88%	10%	9%	88%	3%	
APP/DEPART	57	/	17	16	/	92	517	/	489	387	/	379	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	16	2	13	4	2	3	2	262	29	22	175	7	537	
APPROACH %	52%	6%	42%	44%	22%	33%	1%	89%	10%	11%	86%	3%		
PEAK HR FACTOR	0.705			0.563			0.771			0.810			0.889	
APP/DEPART	31	/	10	9	/	54	293	/	279	204	/	194	0	

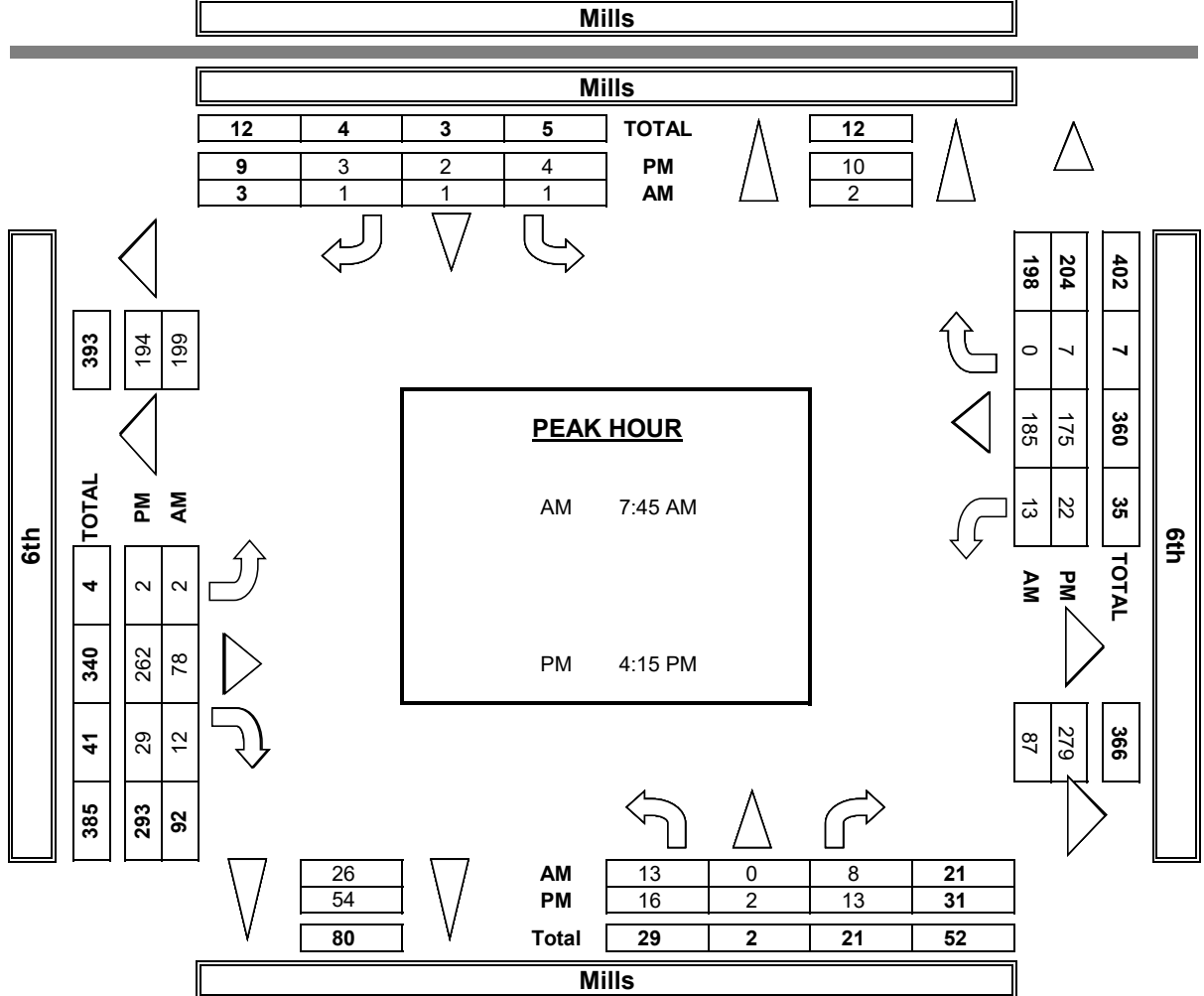
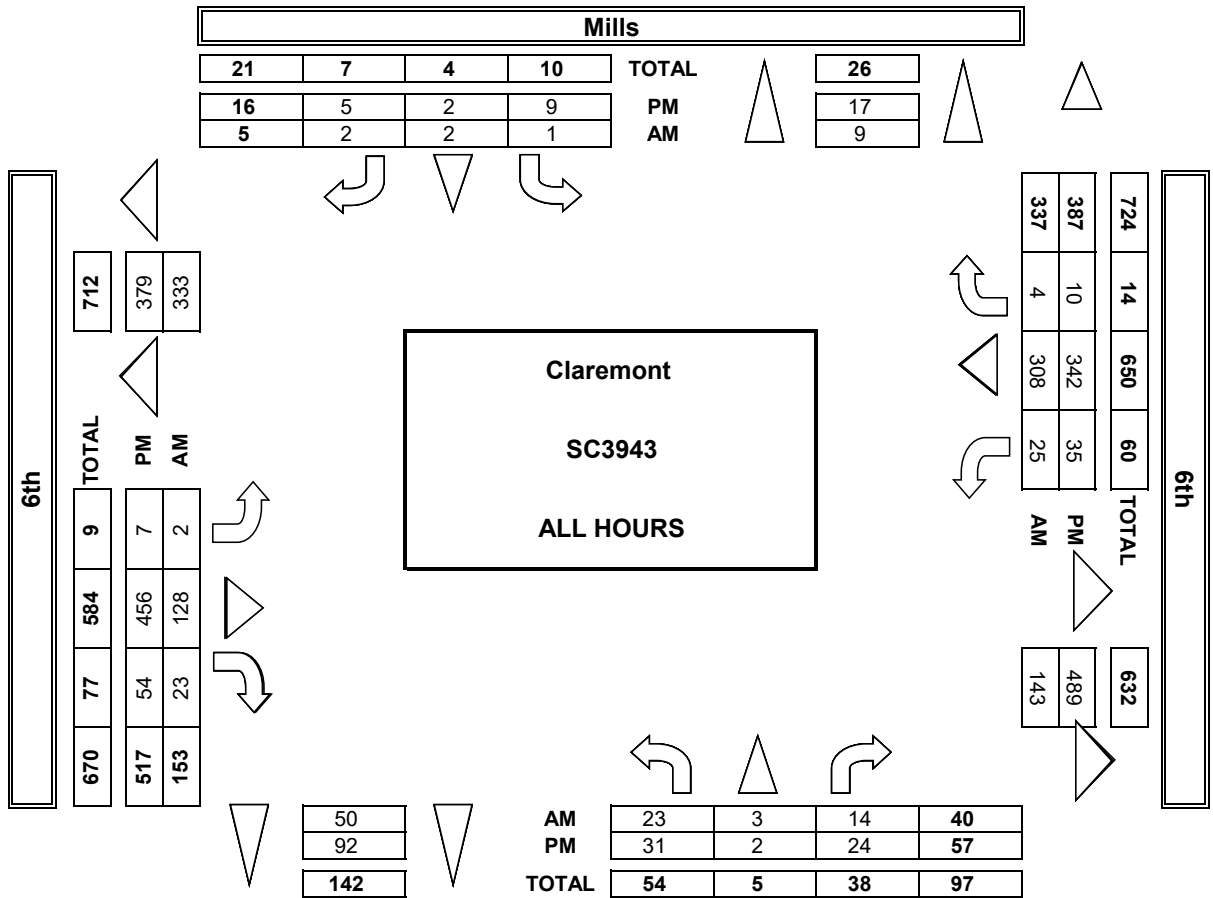


AM	7:00 AM	2	1	7	1	11
	7:15 AM	0	1	3	1	5
	7:30 AM	3	0	4	1	8
	7:45 AM	5	6	0	5	16
	8:00 AM	2	2	6	2	12
	8:15 AM	0	3	6	5	14
	8:30 AM	3	4	1	10	18
	8:45 AM	1	8	8	4	21
TOTAL	16	25	35	29	105	
PM	4:00 PM	7	7	16	8	38
	4:15 PM	4	5	13	10	32
	4:30 PM	0	11	5	21	37
	4:45 PM	2	20	14	21	57
	5:00 PM	4	8	9	14	35
	5:15 PM	7	13	14	15	49
	5:30 PM	3	13	2	16	34
	5:45 PM	2	15	12	14	43
TOTAL	29	92	85	119	325	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	1	7	1	11
0	1	3	1	5
3	0	4	1	8
5	6	0	5	16
2	2	6	2	12
0	3	6	5	14
3	4	1	10	18
1	8	8	4	21
16	25	35	29	105
7	7	16	8	38
4	5	13	10	32
0	11	5	21	37
2	20	14	21	57
4	8	9	14	35
7	13	14	15	49
3	13	2	16	34
2	15	12	14	43
29	92	85	119	325

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	1	7	1	11
0	1	3	1	5
3	0	4	1	8
4	6	0	5	15
2	1	6	2	11
0	3	6	5	14
3	4	1	10	18
0	8	8	4	20
14	24	35	29	102
6	5	16	8	35
4	5	9	8	26
0	8	5	18	31
0	20	13	21	54
4	8	9	14	35
6	13	12	14	45
2	13	2	16	33
2	14	12	14	42
24	86	78	113	301

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Sat, Apr 15, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Claremont Mills 6th	PROJECT #: LOCATION #: CONTROL:	SC3943 6 STOP ALL
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NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
OTHER		▼		

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Mills			Mills			6th			6th			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	1	0	0	1	0	

MD	11:00 AM	2	0	4	1	3	0	1	32	4	1	26	2	76
	11:15 AM	4	0	1	0	1	1	0	30	5	1	45	1	89
	11:30 AM	6	0	3	0	0	0	1	19	3	3	31	1	67
	11:45 AM	1	0	1	1	0	0	0	23	4	0	36	1	67
	12:00 PM	3	0	3	0	0	0	0	34	3	2	42	1	88
	12:15 PM	5	0	2	1	2	0	1	34	4	8	40	1	98
	12:30 PM	4	0	3	0	3	0	2	36	3	2	34	1	88
	12:45 PM	5	0	3	1	0	0	0	37	5	7	39	1	98
	1:00 PM	4	0	1	0	0	0	0	29	4	9	49	2	98
	1:15 PM	2	0	2	0	0	2	2	41	5	5	35	1	95
	1:30 PM	1	0	2	1	0	0	0	31	2	2	38	0	77
	1:45 PM	1	0	5	0	0	0	2	28	2	4	49	1	92
	VOLUMES	38	0	30	5	9	3	9	374	44	44	464	13	1,033
	APPROACH %	56%	0%	44%	29%	53%	18%	2%	88%	10%	8%	89%	2%	
	APP/DEPART	68	/	20	17	/	95	427	/	411	521	/	507	0
BEGIN PEAK HR	12:15 PM													
VOLUMES	18	0	9	2	5	0	3	136	16	26	162	5	382	
APPROACH %	67%	0%	33%	29%	71%	0%	2%	88%	10%	13%	84%	3%		
PEAK HR FACTOR	0.844			0.583			0.923			0.804			0.974	
APP/DEPART	27	/	8	7	/	47	155	/	147	193	/	180	0	
PM	02:00 PM	2	0	3	1	2	1	2	28	5	4	42	3	93
	2:15 PM	5	0	2	0	1	0	3	38	0	3	63	0	115
	2:30 PM	3	0	4	1	0	1	1	32	7	4	43	0	96
	2:45 PM	4	0	2	0	1	1	0	31	5	4	43	1	92
	3:00 PM	6	1	3	0	0	0	0	23	3	3	36	0	75
	3:15 PM	1	0	2	1	0	0	0	21	6	5	39	0	75
	3:30 PM	1	0	6	3	1	0	3	27	5	1	34	0	81
	3:45 PM	2	1	1	1	1	1	1	27	3	6	32	1	77
	4:00 PM	1	0	5	0	0	1	1	41	4	7	38	3	101
	4:15 PM	1	0	0	0	0	0	0	35	3	3	32	0	74
	4:30 PM	4	0	0	0	0	1	0	35	0	4	26	0	70
	4:45 PM	1	0	3	0	0	0	0	26	3	2	37	0	72
	VOLUMES	31	2	31	7	6	6	11	364	44	46	465	8	1,021
	APPROACH %	48%	3%	48%	37%	32%	32%	3%	87%	11%	9%	90%	2%	
	APP/DEPART	64	/	19	19	/	97	419	/	402	519	/	503	0
BEGIN PEAK HR	2:00 PM													
VOLUMES	14	0	11	2	4	3	6	129	17	15	191	4	396	
APPROACH %	56%	0%	44%	22%	44%	33%	4%	85%	11%	7%	91%	2%		
PEAK HR FACTOR	0.893			0.563			0.927			0.795			0.861	
APP/DEPART	25	/	9	9	/	36	152	/	142	210	/	209	0	

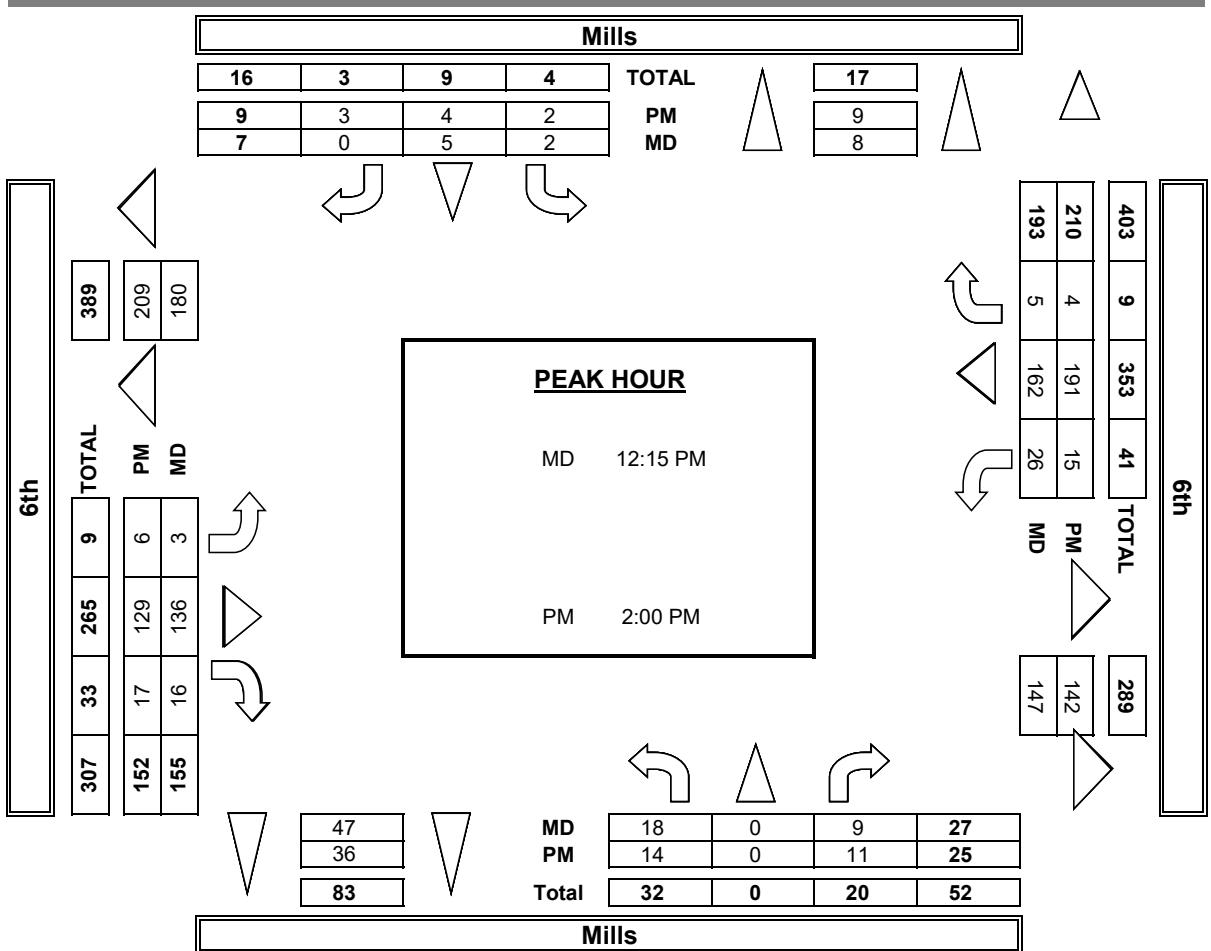
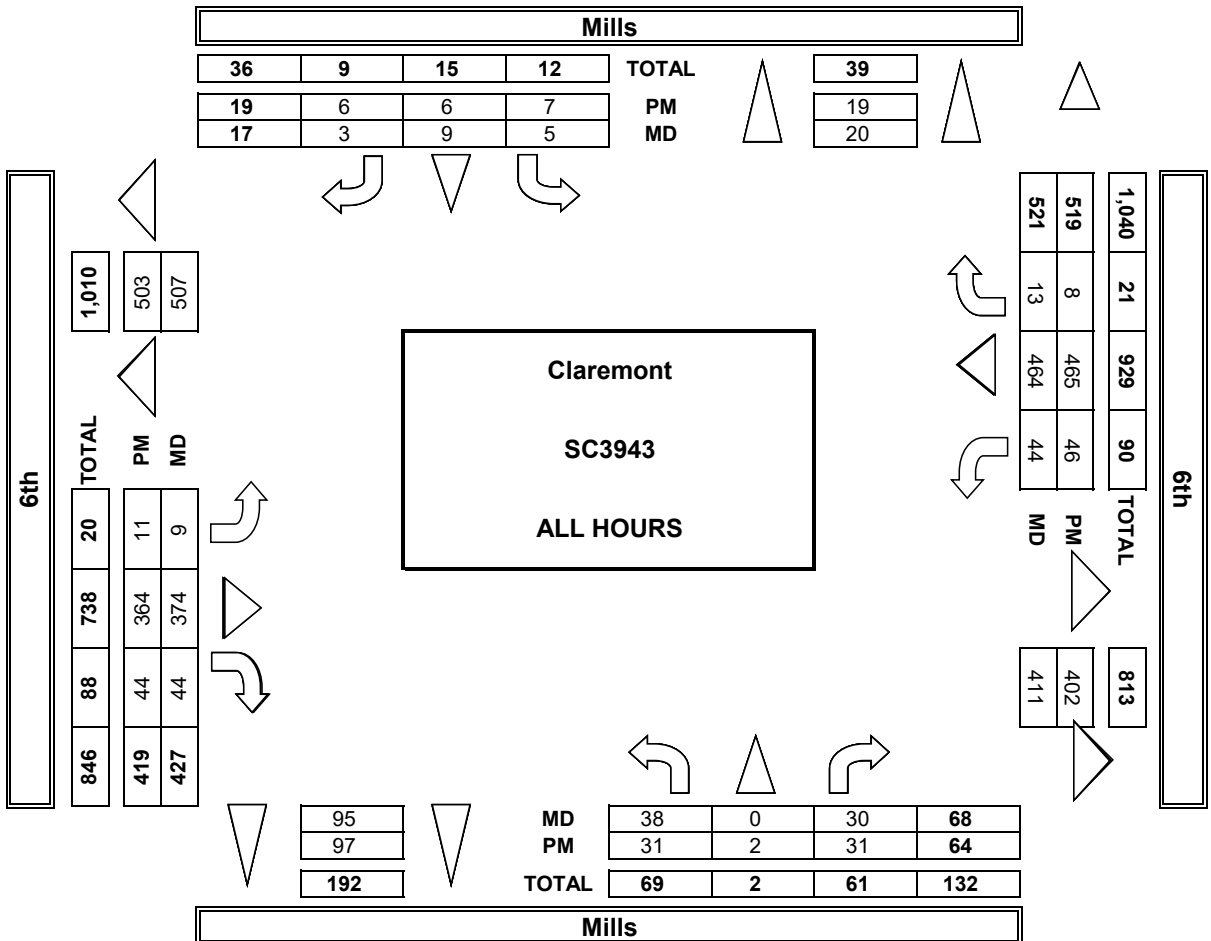


MD	11:00 AM	6	3	8	6	23	
	11:15 AM	7	7	14	15	43	
	11:30 AM	10	10	11	25	56	
	11:45 AM	7	9	7	10	33	
	12:00 PM	5	7	7	10	29	
	12:15 PM	23	16	12	19	70	
	12:30 PM	11	12	4	17	44	
	12:45 PM	13	10	14	6	43	
	1:00 PM	2	14	11	9	36	
	1:15 PM	8	2	7	3	20	
	1:30 PM	4	7	23	15	49	
	1:45 PM	6	3	7	15	31	
	TOTAL	102	100	125	150	477	
	PM	2:00 PM	2	21	6	19	48
		2:15 PM	2	1	6	4	13
2:30 PM		2	13	7	18	40	
2:45 PM		1	6	15	8	30	
3:00 PM		2	7	7	16	32	
3:15 PM		4	7	2	13	26	
3:30 PM		2	8	7	21	38	
3:45 PM		1	7	4	21	33	
4:00 PM		0	3	10	5	18	
4:15 PM		3	7	4	11	25	
4:30 PM		0	8	3	9	20	
4:45 PM		1	7	4	11	23	
TOTAL		20	95	75	156	346	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
6	3	8	6	23
7	7	14	15	43
10	10	11	25	56
7	9	7	10	33
5	7	7	10	29
23	16	12	19	70
11	12	4	17	44
13	10	14	6	43
2	14	11	9	36
8	2	7	3	20
4	7	23	15	49
6	3	7	15	31
102	100	125	150	477
2	21	6	19	48
2	1	6	4	13
2	13	7	18	40
1	6	15	8	30
2	7	7	16	32
4	7	2	13	26
2	8	7	21	38
1	7	4	21	33
0	3	10	5	18
3	7	4	11	25
0	8	3	9	20
1	7	4	11	23
20	95	75	156	346

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
4	2	8	5	19
5	7	14	14	40
10	10	11	25	56
7	9	7	10	33
3	7	7	9	26
0	15	11	19	45
10	12	4	17	43
12	9	14	6	41
2	13	11	9	35
8	2	6	3	19
1	4	23	14	42
6	2	7	15	30
68	92	123	146	429
2	21	6	19	48
2	1	6	4	13
2	9	7	18	36
1	4	15	8	28
0	7	6	15	28
2	7	2	12	23
2	7	6	20	35
1	5	4	20	30
0	3	10	5	18
2	7	4	11	24
0	7	2	9	18
1	4	4	11	20
15	82	72	152	321

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Tue, Oct 4, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

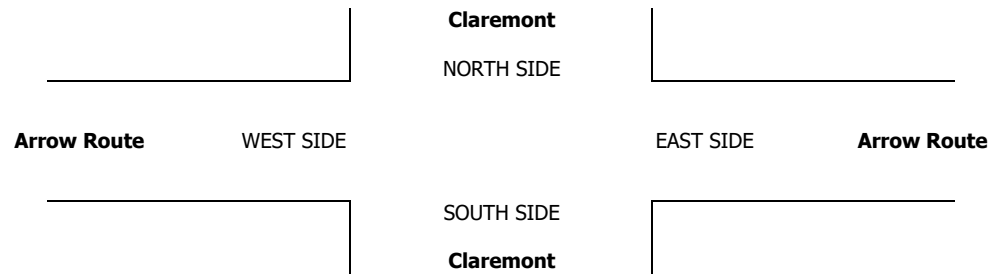
Claremont
Claremont
Arrow Route

PROJECT #: SC3668
LOCATION #: 5
CONTROL: SIGNAL

NOTES:	AM		▲ N	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND Claremont			SOUTHBOUND Claremont			EASTBOUND 6th			WESTBOUND Arrow Route			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 1	WT 1	WR 1	

AM	7:00 AM	2	58	16	6	79	6	4	9	0	11	21	9	221
	7:15 AM	2	66	14	12	72	4	3	7	0	17	29	9	235
	7:30 AM	11	96	13	10	99	5	10	11	2	41	39	14	351
	7:45 AM	12	122	20	9	110	6	6	13	2	37	37	24	398
	8:00 AM	10	100	25	13	128	11	14	25	2	42	52	28	450
	8:15 AM	4	95	13	14	81	13	3	19	3	28	32	17	322
	8:30 AM	2	84	11	6	70	5	5	13	0	34	31	18	279
	8:45 AM	4	73	17	12	66	14	4	15	2	28	38	16	289
	VOLUMES	47	694	129	82	705	64	49	112	11	238	279	135	2,545
	APPROACH %	5%	80%	15%	10%	83%	8%	28%	65%	6%	37%	43%	21%	
APP/DEPART	870	/	886	851	/	954	172	/	317	652	/	388	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	37	413	71	46	418	35	33	68	9	148	160	83	1,521	
APPROACH %	7%	79%	14%	9%	84%	7%	30%	62%	8%	38%	41%	21%		
PEAK HR FACTOR	0.846			0.821			0.671			0.801			0.845	
APP/DEPART	521	/	532	499	/	577	110	/	182	391	/	230	0	
PM	4:00 PM	8	91	46	34	77	12	16	23	3	24	22	11	367
	4:15 PM	1	82	50	17	86	15	14	36	0	20	35	18	374
	4:30 PM	1	88	53	14	93	12	9	36	5	21	19	8	359
	4:45 PM	7	89	28	24	84	11	11	31	2	24	38	11	360
	5:00 PM	4	114	62	40	85	9	9	57	9	30	21	12	452
	5:15 PM	11	90	35	24	107	21	17	36	4	32	20	10	407
	5:30 PM	4	75	43	20	57	14	10	40	0	14	24	13	314
	5:45 PM	6	60	47	27	79	14	10	27	2	30	32	16	350
	VOLUMES	42	689	364	200	668	108	96	287	25	195	211	99	2,984
	APPROACH %	4%	63%	33%	20%	68%	11%	24%	70%	6%	39%	42%	20%	
APP/DEPART	1,095	/	888	976	/	895	408	/	847	505	/	354	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	23	381	178	102	369	53	46	160	20	107	98	41	1,578	
APPROACH %	4%	65%	31%	19%	70%	10%	20%	71%	9%	43%	40%	17%		
PEAK HR FACTOR	0.808			0.862			0.753			0.842			0.873	
APP/DEPART	582	/	470	524	/	500	226	/	438	246	/	170	0	

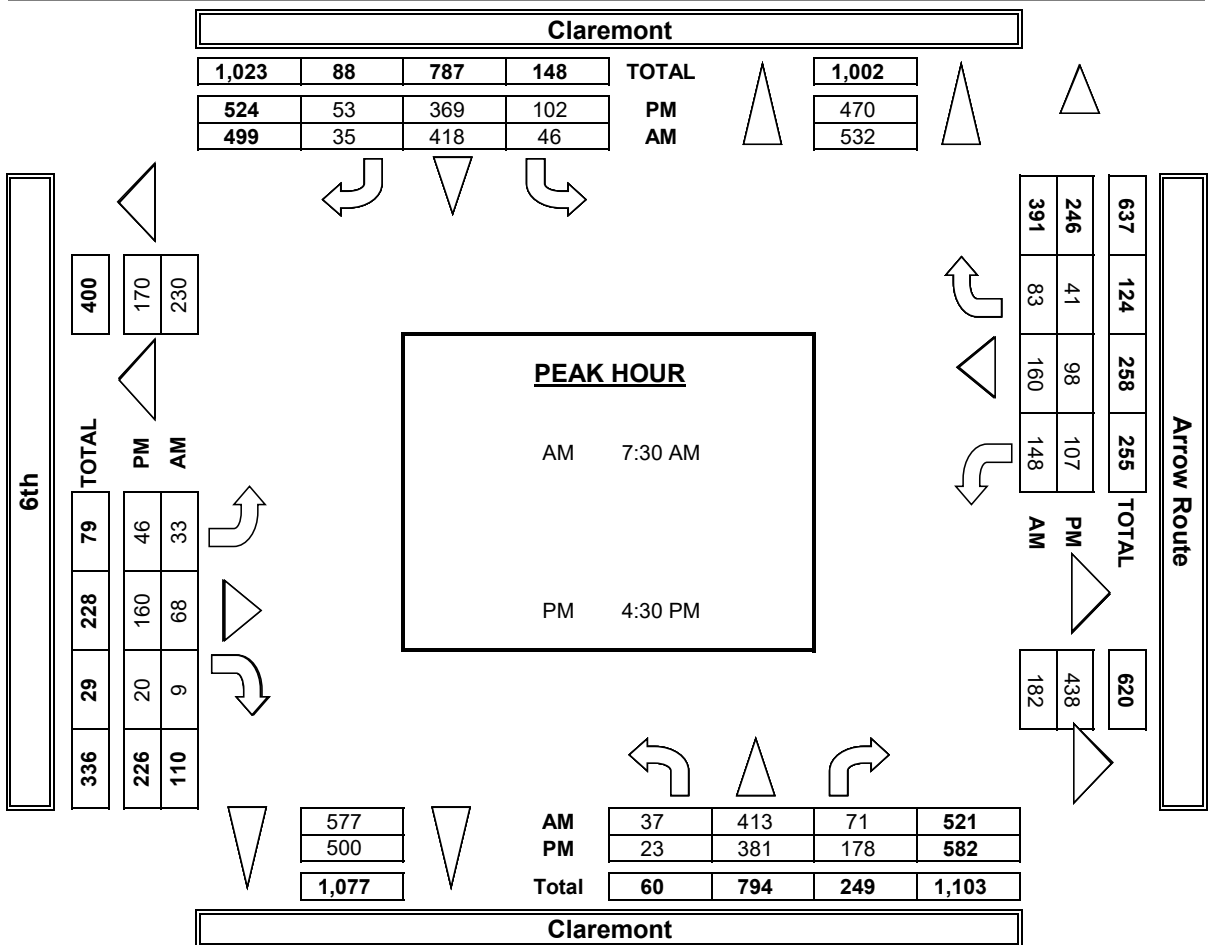
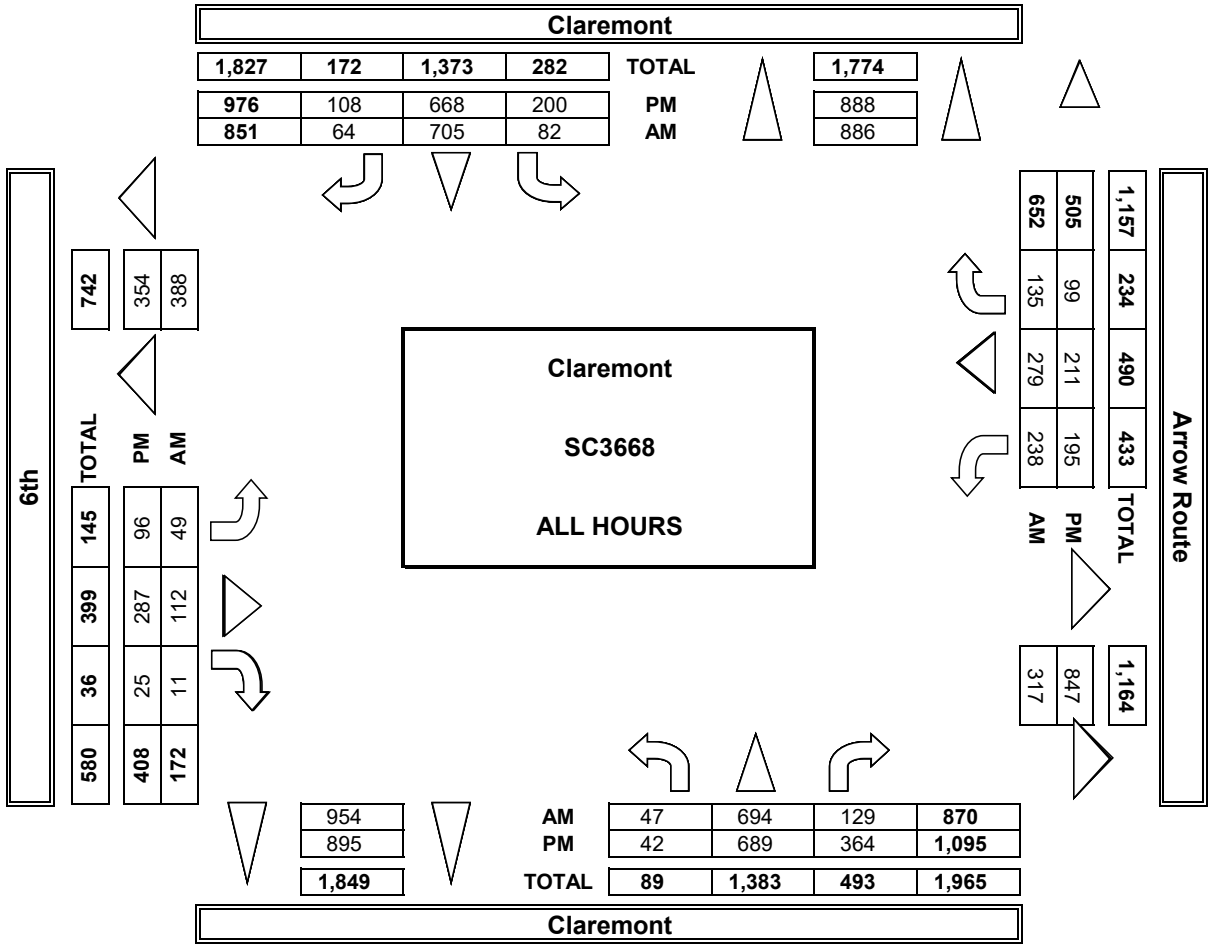


AM	7:00 AM	0	6	0	1	7
	7:15 AM	0	3	0	4	7
	7:30 AM	2	1	1	2	6
	7:45 AM	0	8	1	0	9
	8:00 AM	6	3	4	2	15
	8:15 AM	1	8	0	1	10
	8:30 AM	2	5	0	4	11
	8:45 AM	0	8	3	4	15
	TOTAL	11	42	9	18	80
	PM	4:00 PM	1	11	1	3
4:15 PM		3	10	1	2	16
4:30 PM		0	6	1	3	10
4:45 PM		0	8	0	1	9
5:00 PM		1	11	1	2	15
5:15 PM		4	6	2	3	15
5:30 PM		2	10	1	3	16
5:45 PM		0	13	0	10	23
TOTAL	11	75	7	27	120	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	6	0	1	7
0	3	0	4	7
2	1	1	2	6
0	8	1	0	9
6	3	4	2	15
1	8	0	1	10
2	5	0	4	11
0	8	3	4	15
11	42	9	18	80
1	11	1	3	16
3	10	1	2	16
0	6	1	3	10
0	8	0	1	9
1	11	1	2	15
4	6	2	3	15
2	10	1	3	16
0	13	0	10	23
11	75	7	27	120

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	6	0	1	7
0	2	0	3	5
0	0	0	2	2
0	6	0	0	6
2	1	2	2	7
0	7	0	1	8
0	5	0	3	8
0	6	0	4	10
2	33	2	16	53
0	7	0	3	10
0	8	0	1	9
0	5	0	2	7
0	5	0	0	5
0	9	0	1	10
2	6	0	1	9
1	9	1	3	14
0	11	0	9	20
3	60	1	20	84

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Sat, Oct 1, 22

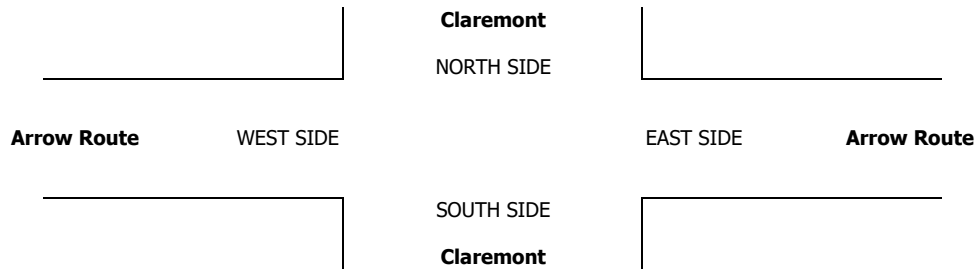
LOCATION:
NORTH & SOUTH:
EAST & WEST:

Claremont
Claremont
Arrow Route

PROJECT #: SC3668
LOCATION #: 5
CONTROL: SIGNAL

NOTES:	AM PM MD OTHER OTHER	◀ W	▲ N S ▼	E ▶
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL	
	Claremont			Claremont			6th			Arrow Route				
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 1	WT 1	WR 1		
MD	11:00 AM	6	63	21	24	67	17	19	10	3	24	23	20	297
	11:15 AM	8	75	15	12	64	23	18	20	8	19	27	5	294
	11:30 AM	8	81	19	9	75	17	14	15	7	13	25	14	297
	11:45 AM	8	72	25	12	67	9	13	13	3	17	28	13	280
	12:00 PM	10	73	18	13	67	14	21	25	5	21	32	11	310
	12:15 PM	12	79	30	15	74	14	14	24	8	17	24	12	323
	12:30 PM	8	54	16	10	55	19	12	23	8	26	23	11	265
	12:45 PM	11	62	27	13	61	17	5	27	7	26	29	17	302
	1:00 PM	9	81	23	14	73	29	16	24	7	15	28	9	328
	1:15 PM	5	78	29	19	67	17	12	24	9	27	22	10	319
VOLUMES	85	718	223	141	670	176	144	205	65	205	261	122	3,015	
APPROACH %	8%	70%	22%	14%	68%	18%	35%	50%	16%	35%	44%	21%		
APP/DEPART	1,026	/	988	987	/	949	414	/	565	588	/	513	0	
BEGIN PEAK HR	12:15 PM													
VOLUMES	40	276	96	52	263	79	47	98	30	84	104	49	1,218	
APPROACH %	10%	67%	23%	13%	67%	20%	27%	56%	17%	35%	44%	21%		
PEAK HR FACTOR	0.851			0.849			0.931			0.823			0.928	
APP/DEPART	412	/	373	394	/	381	175	/	245	237	/	219	0	
PM	03:00 PM	5	67	19	17	65	15	11	32	8	26	38	14	317
	3:15 PM	7	64	26	14	68	7	14	22	3	17	29	11	282
	3:30 PM	4	63	22	8	64	10	6	24	7	17	29	9	263
	3:45 PM	10	65	21	12	69	14	16	23	5	24	22	9	290
	4:00 PM	12	66	19	10	74	13	17	30	21	17	25	12	316
	4:15 PM	6	67	23	12	78	12	14	15	8	25	29	9	298
	4:30 PM	5	61	19	9	56	22	13	34	4	13	28	10	274
	4:45 PM	9	58	22	16	54	17	18	25	2	18	24	16	279
	VOLUMES	58	511	171	98	528	110	109	205	58	157	224	90	2,319
	APPROACH %	8%	69%	23%	13%	72%	15%	29%	55%	16%	33%	48%	19%	
APP/DEPART	740	/	712	736	/	748	372	/	473	471	/	386	0	
BEGIN PEAK HR	3:45 PM													
VOLUMES	33	259	82	43	277	61	60	102	38	79	104	40	1,178	
APPROACH %	9%	69%	22%	11%	73%	16%	30%	51%	19%	35%	47%	18%		
PEAK HR FACTOR	0.964			0.934			0.735			0.885			0.932	
APP/DEPART	374	/	359	381	/	396	200	/	227	223	/	196	0	

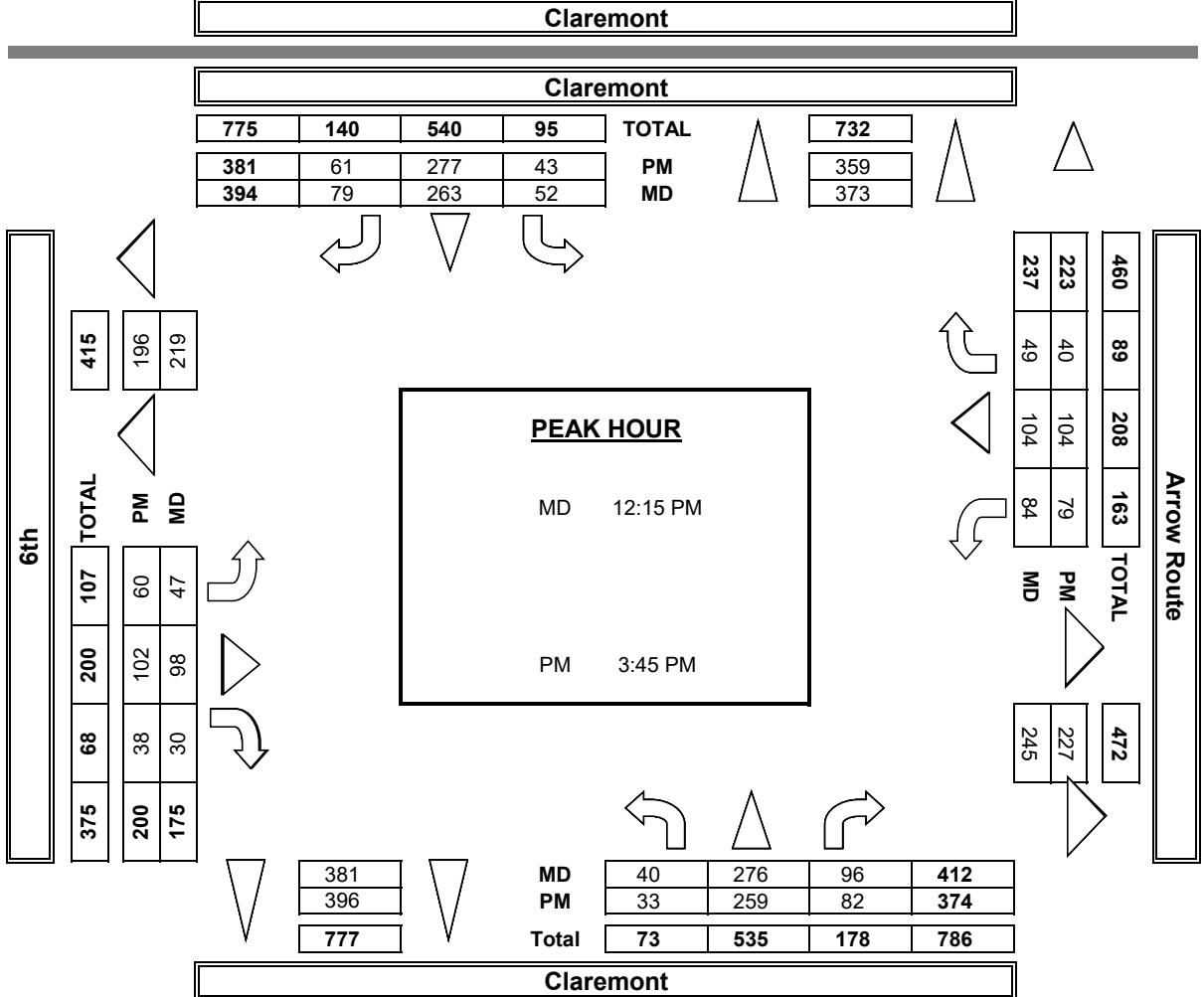
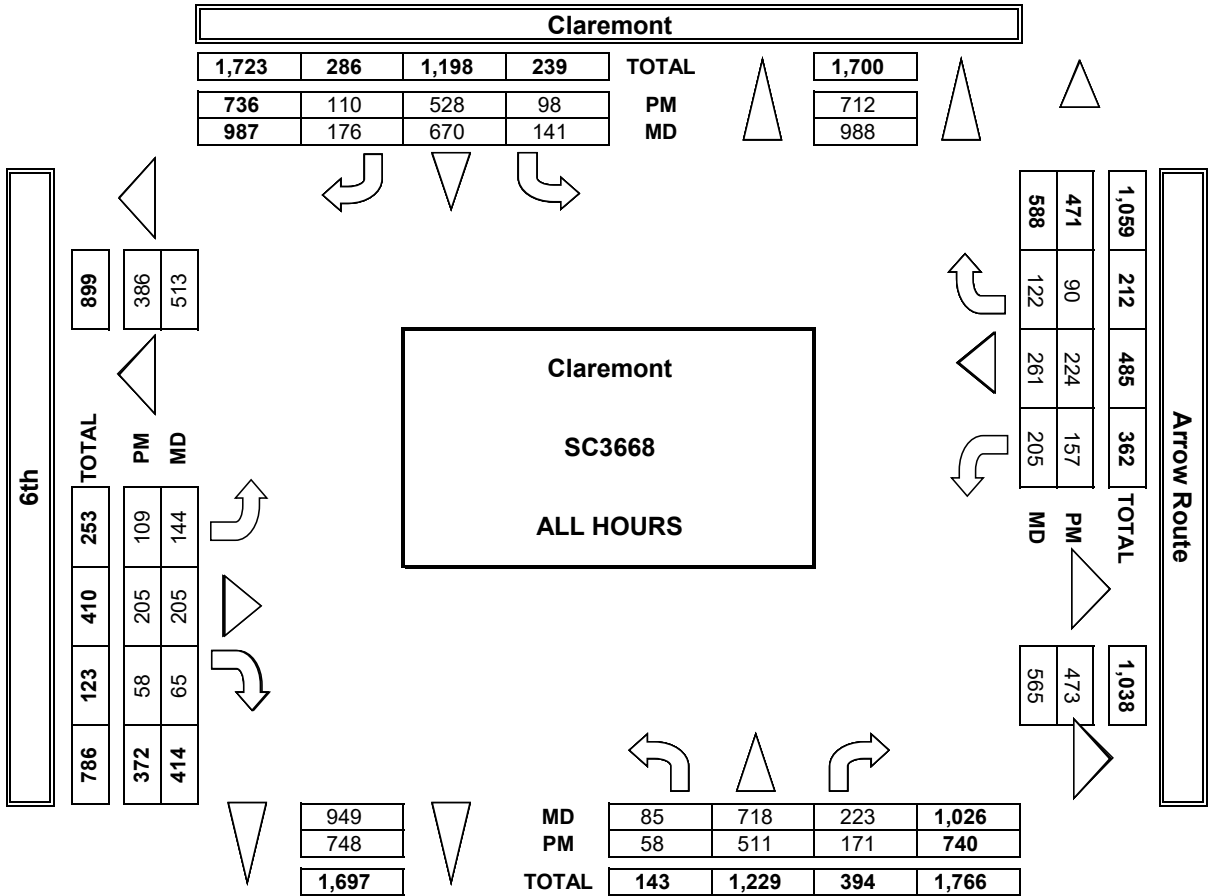


MD	11:00 AM
	11:15 AM
	11:30 AM
	11:45 AM
	12:00 PM
	12:15 PM
	12:30 PM
	12:45 PM
	1:00 PM
	1:15 PM
TOTAL	
PM	3:00 PM
	3:15 PM
	3:30 PM
	3:45 PM
	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
TOTAL	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	9	0	1	11
1	7	0	2	10
1	5	0	1	7
0	2	0	0	2
0	6	0	2	8
0	5	0	3	8
2	10	1	6	19
0	4	0	2	6
0	5	0	1	6
3	5	1	0	9
8	58	2	18	86
0	5	0	2	7
2	5	2	3	12
1	5	0	2	8
0	3	2	5	10
2	5	2	0	9
3	5	3	1	12
1	4	1	0	6
1	7	1	4	13
10	39	11	17	77

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	4	0	1	5
1	5	0	1	7
0	5	0	1	6
0	2	0	0	2
0	4	0	1	5
0	3	0	0	3
1	7	1	6	15
0	4	0	2	6
0	5	0	1	6
1	3	1	0	5
3	42	2	13	60
0	3	0	1	4
0	3	0	2	5
0	3	0	1	4
0	2	0	5	7
2	5	2	0	9
2	3	2	1	8
0	3	0	0	3
1	4	1	2	8
5	26	5	12	48

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Tue, Oct 4, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Upland
Monte Vista
Arrow Route

PROJECT #: SC3668
LOCATION #: 10
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

LANES:	NORTHBOUND <small>Monte Vista</small>			SOUTHBOUND <small>Monte Vista</small>			EASTBOUND <small>Arrow Route</small>			WESTBOUND <small>Arrow Route</small>			TOTAL
	NL 2	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	

AM	7:00 AM	5	63	5	5	87	6	5	17	4	11	21	10	239
	7:15 AM	1	57	2	6	119	12	8	22	3	13	36	13	292
	7:30 AM	4	98	9	4	101	14	15	27	7	18	59	16	372
	7:45 AM	10	109	12	5	92	12	12	34	0	17	61	24	388
	8:00 AM	13	98	11	11	110	15	9	49	6	12	64	10	408
	8:15 AM	9	97	9	8	95	10	6	32	4	8	47	10	335
	8:30 AM	13	85	7	7	92	8	14	17	3	12	48	9	315
	8:45 AM	8	73	8	5	93	11	15	27	5	12	42	13	312
	VOLUMES	63	680	63	51	789	88	84	225	32	103	378	105	2,661
	APPROACH %	8%	84%	8%	5%	85%	9%	25%	66%	9%	18%	65%	18%	
APP/DEPART	806	/	869	928	/	926	341	/	339	586	/	527	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	36	402	41	28	398	51	42	142	17	55	231	60	1,503	
APPROACH %	8%	84%	9%	6%	83%	11%	21%	71%	8%	16%	67%	17%		
PEAK HR FACTOR	0.914			0.877			0.785			0.848			0.921	
APP/DEPART	479	/	504	477	/	471	201	/	211	346	/	317	0	
PM	4:00 PM	6	125	29	14	138	7	12	63	8	12	33	11	458
	4:15 PM	10	104	19	11	142	12	12	77	9	17	27	10	450
	4:30 PM	5	107	22	10	131	9	17	65	6	19	26	14	431
	4:45 PM	8	100	17	7	128	15	21	48	9	15	29	3	400
	5:00 PM	8	89	9	13	146	16	9	102	16	14	31	10	463
	5:15 PM	8	83	23	13	136	7	11	65	12	10	42	9	419
	5:30 PM	8	109	16	12	139	13	17	56	12	15	26	11	434
	5:45 PM	12	96	9	16	134	8	17	67	11	11	32	10	423
	VOLUMES	65	813	144	96	1,094	87	116	543	83	113	246	78	3,478
	APPROACH %	6%	80%	14%	8%	86%	7%	16%	73%	11%	26%	56%	18%	
APP/DEPART	1,022	/	1,007	1,277	/	1,294	742	/	783	437	/	394	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	31	400	67	41	547	52	59	292	40	65	113	37	1,744	
APPROACH %	6%	80%	13%	6%	85%	8%	15%	75%	10%	30%	53%	17%		
PEAK HR FACTOR	0.929			0.914			0.770			0.911			0.942	
APP/DEPART	498	/	496	640	/	655	391	/	400	215	/	193	0	

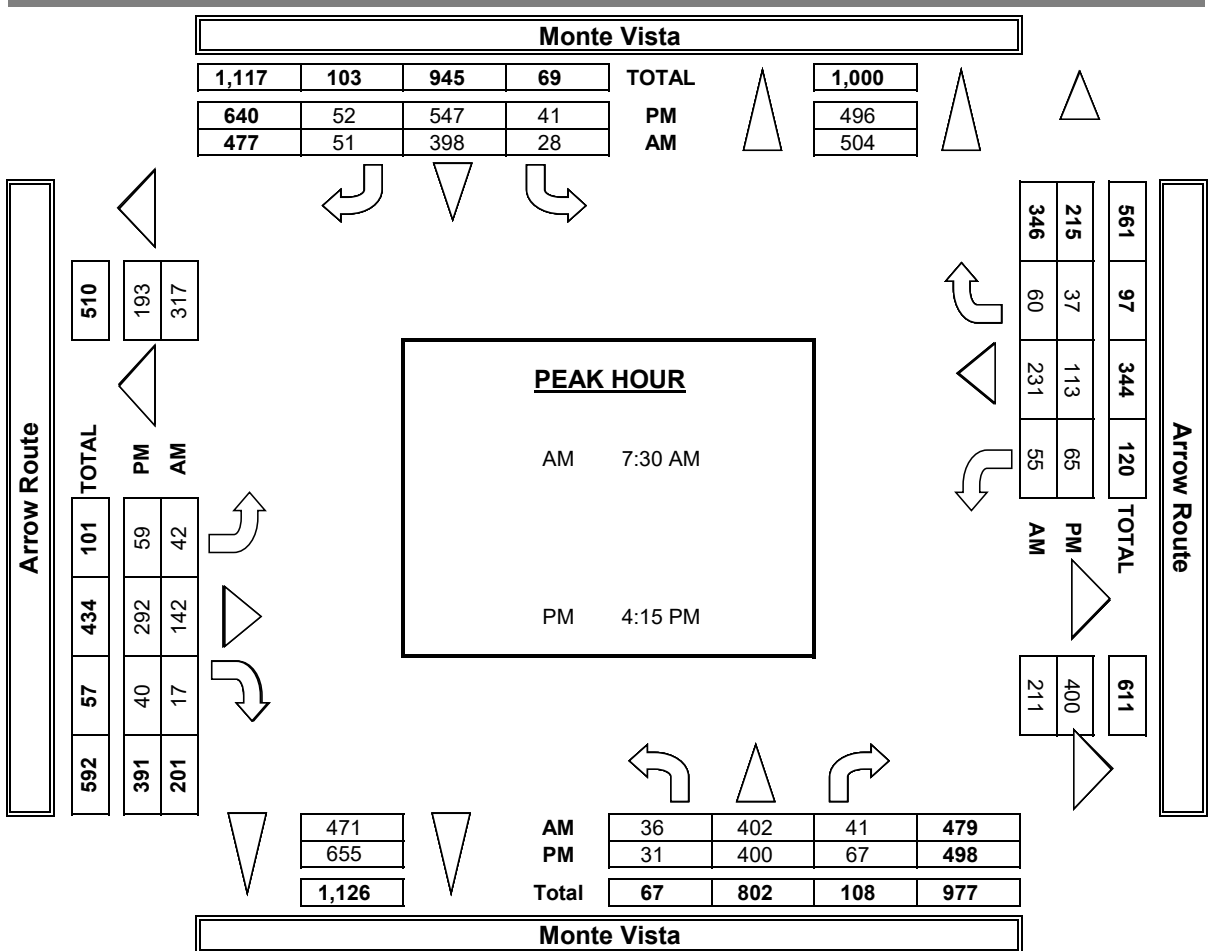
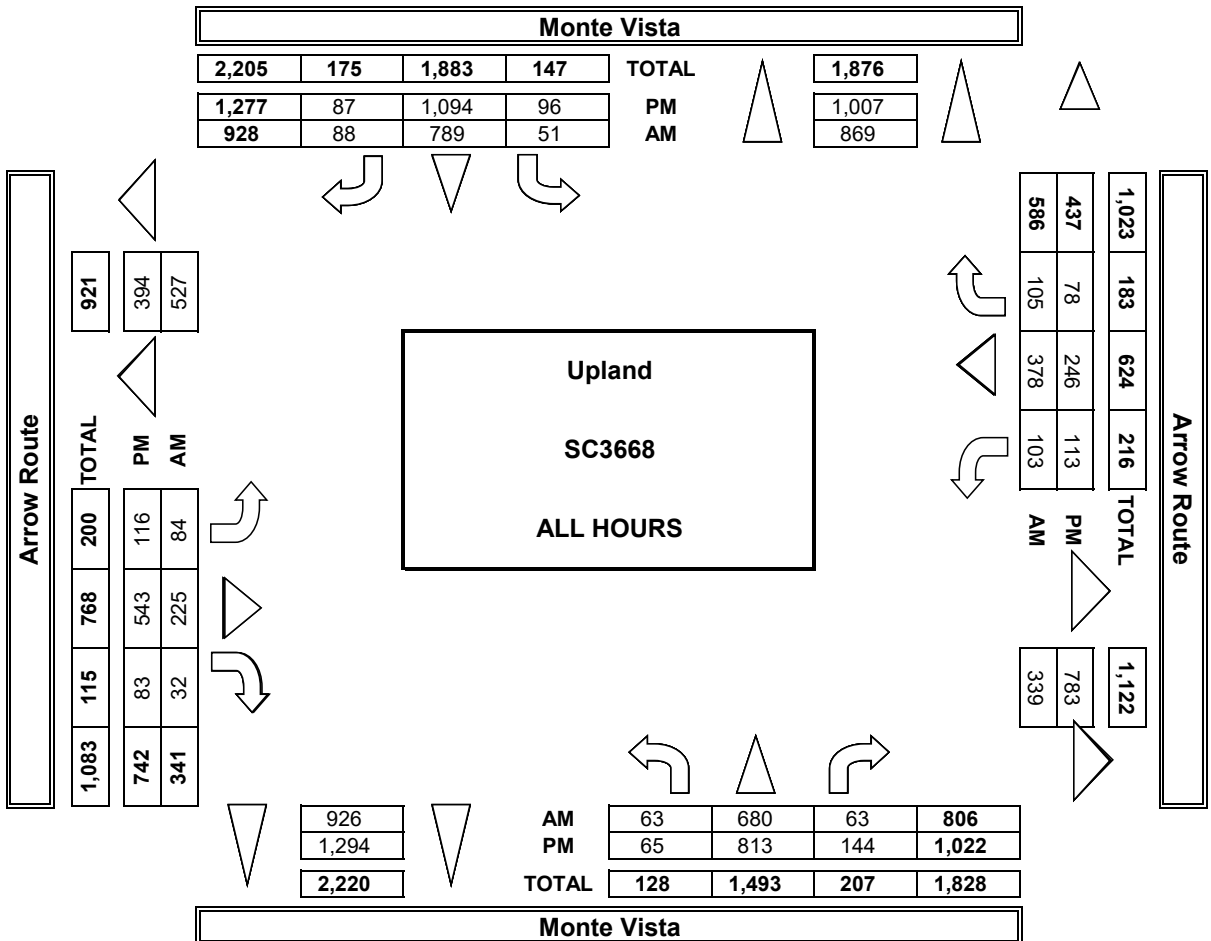


AM	7:00 AM	0	0	0	0	0
	7:15 AM	1	0	0	0	1
	7:30 AM	2	0	0	0	2
	7:45 AM	0	0	0	0	0
	8:00 AM	0	2	0	0	2
	8:15 AM	0	1	0	0	1
	8:30 AM	1	1	0	1	3
	8:45 AM	0	2	0	0	2
TOTAL	4	6	0	1	11	
PM	4:00 PM	0	2	0	0	2
	4:15 PM	0	3	0	0	3
	4:30 PM	0	1	0	0	1
	4:45 PM	0	3	2	1	6
	5:00 PM	0	3	0	0	3
	5:15 PM	3	0	0	0	3
	5:30 PM	0	1	1	0	2
	5:45 PM	1	2	0	0	3
TOTAL	4	15	3	1	23	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
1	0	0	0	1
2	0	0	0	2
0	0	0	0	0
0	2	0	0	2
0	1	0	0	1
1	1	0	1	3
0	2	0	0	2
4	6	0	1	11
0	2	0	0	2
0	3	0	0	3
0	1	0	0	1
0	3	2	1	6
0	3	0	0	3
3	0	0	0	3
0	1	1	0	2
1	2	0	0	3
4	15	3	1	23

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	1	1
0	0	0	0	0
0	2	0	1	3
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	3	1	0	4
0	3	0	0	3
2	0	0	0	2
0	0	1	0	1
0	0	0	0	0
2	8	2	0	12

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Sat, Oct 1, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Upland
Monte Vista
Arrow Route

PROJECT #: SC3668
LOCATION #: 10
CONTROL: SIGNAL

NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E ▼
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LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Monte Vista			Monte Vista			Arrow Route			Arrow Route			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	3	0	1	3	0	1	2	0	1	1	1	

MD	11:00 AM	4	84	5	11	130	9	8	32	8	7	23	11	332
	11:15 AM	5	72	7	15	98	16	16	23	8	7	24	9	300
	11:30 AM	12	70	7	5	109	6	14	25	7	12	22	10	299
	11:45 AM	12	81	5	9	117	15	24	33	3	14	30	13	356
	12:00 PM	11	92	9	4	120	4	20	25	9	13	33	7	347
	12:15 PM	5	75	5	6	122	15	19	35	9	10	32	10	343
	12:30 PM	10	75	5	6	127	18	15	39	13	4	22	11	345
	12:45 PM	9	71	10	8	111	10	17	42	12	13	36	5	344
	1:00 PM	10	76	13	7	91	15	22	30	10	10	23	7	314
	1:15 PM	8	101	10	7	125	13	16	37	9	9	35	5	375
VOLUMES	86	797	76	78	1,150	121	171	321	88	99	280	88	3,355	
APPROACH %	9%	83%	8%	6%	85%	9%	29%	55%	15%	21%	60%	19%		
APP/DEPART	959	/	1,056	1,349	/	1,350	580	/	473	467	/	476	0	
BEGIN PEAK HR	11:45 AM													
VOLUMES	38	323	24	25	486	52	78	132	34	41	117	41	1,391	
APPROACH %	10%	84%	6%	4%	86%	9%	32%	54%	14%	21%	59%	21%		
PEAK HR FACTOR	0.859			0.932			0.910			0.873			0.977	
APP/DEPART	385	/	441	563	/	569	244	/	180	199	/	201	0	
PM	03:00 PM	11	74	1	9	106	9	10	38	12	9	29	7	315
	3:15 PM	10	83	5	4	120	9	6	35	10	7	36	10	335
	3:30 PM	5	70	11	7	90	12	12	35	12	9	30	9	302
	3:45 PM	12	78	6	6	126	9	14	36	11	15	25	3	341
	4:00 PM	10	78	7	6	106	8	18	42	6	13	34	12	340
	4:15 PM	7	68	6	2	106	5	11	35	13	13	34	11	311
	4:30 PM	14	73	10	4	88	10	11	43	9	9	29	10	310
	4:45 PM	8	94	8	8	93	15	9	46	14	6	22	11	334
	VOLUMES	77	620	54	46	836	77	91	310	87	81	239	73	2,591
	APPROACH %	10%	83%	7%	5%	87%	8%	19%	64%	18%	21%	61%	19%	
APP/DEPART	751	/	784	959	/	1,009	488	/	409	393	/	389	0	
BEGIN PEAK HR	3:15 PM													
VOLUMES	37	309	29	23	442	38	50	148	39	44	125	34	1,318	
APPROACH %	10%	82%	8%	5%	88%	8%	21%	62%	16%	22%	62%	17%		
PEAK HR FACTOR	0.957			0.892			0.898			0.860			0.966	
APP/DEPART	375	/	392	503	/	526	237	/	200	203	/	200	0	

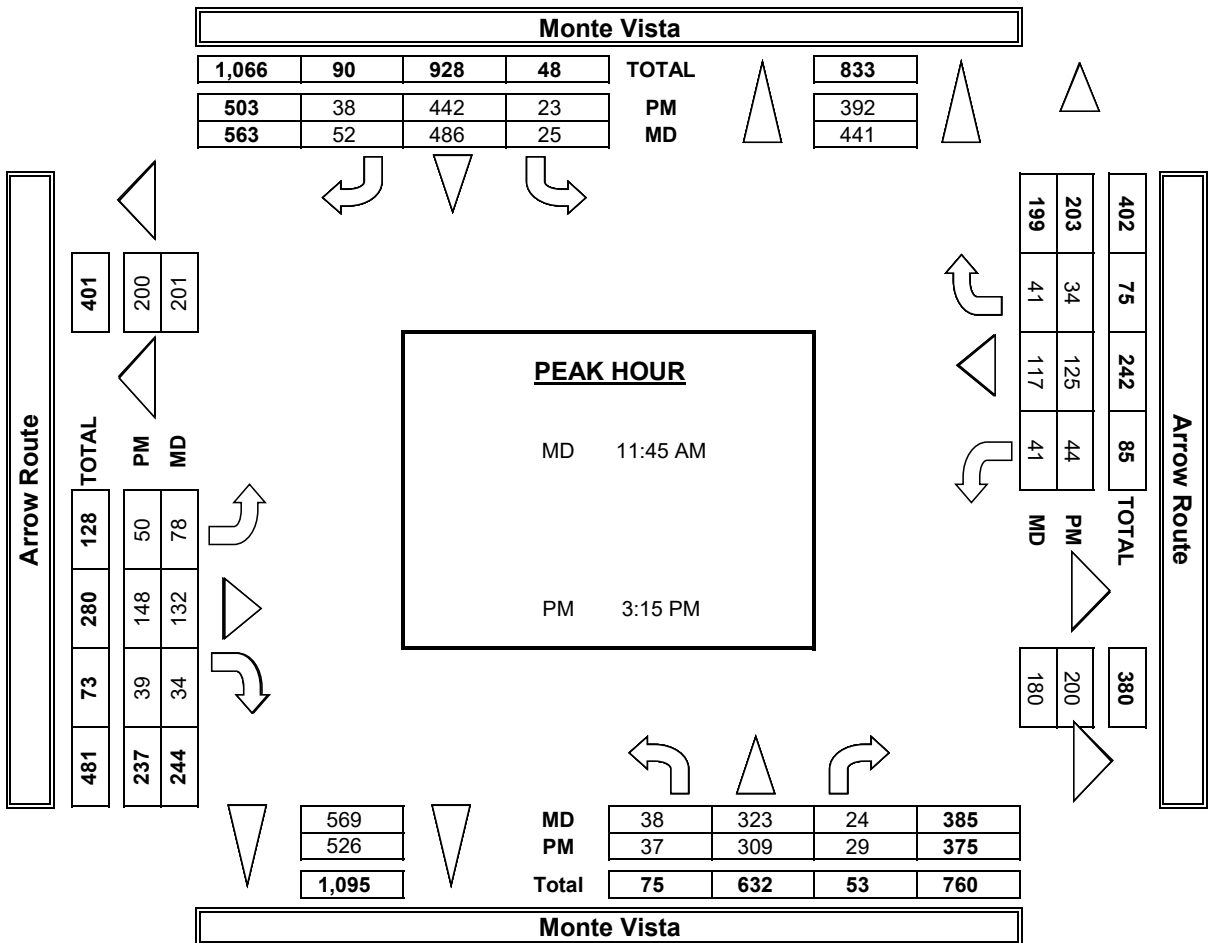
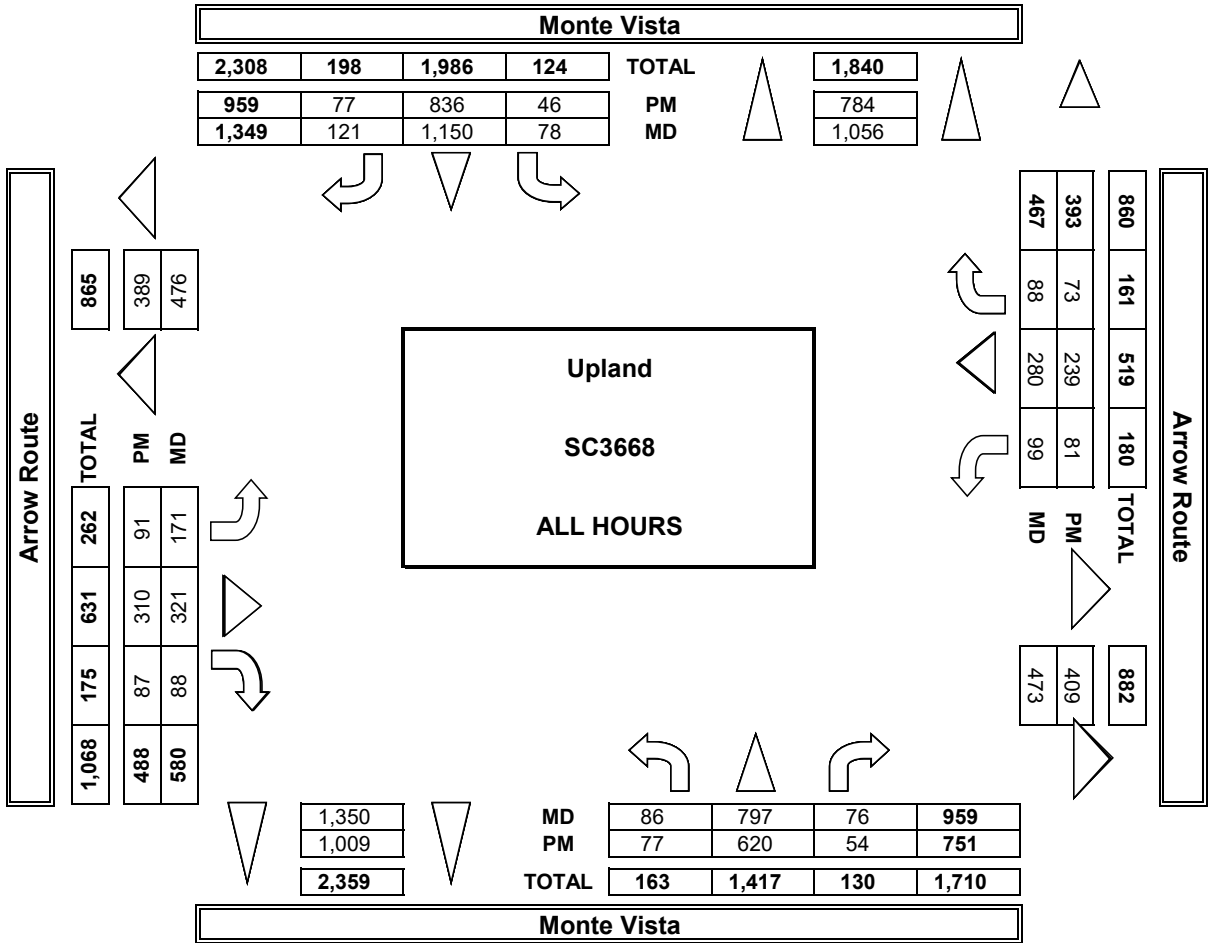


MD	11:00 AM	0	5	0	0	5
	11:15 AM	0	1	1	0	2
	11:30 AM	1	0	0	0	1
	11:45 AM	0	1	1	0	2
	12:00 PM	0	2	0	0	2
	12:15 PM	0	3	0	0	3
	12:30 PM	0	3	1	0	4
	12:45 PM	0	1	1	0	2
	1:00 PM	0	0	0	0	0
	1:15 PM	1	2	0	0	3
TOTAL	2	18	4	0	24	
PM	3:00 PM	1	1	0	1	3
	3:15 PM	0	0	0	0	0
	3:30 PM	1	3	0	0	4
	3:45 PM	1	1	0	0	2
	4:00 PM	0	0	0	0	0
	4:15 PM	0	2	1	0	3
	4:30 PM	1	3	2	1	7
	4:45 PM	0	3	0	0	3
TOTAL	4	13	3	2	22	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	5	0	0	5
0	1	1	0	2
1	0	0	0	1
0	1	1	0	2
0	2	0	0	2
0	3	0	0	3
0	3	1	0	4
0	1	1	0	2
0	0	0	0	0
1	2	0	0	3
2	18	4	0	24
1	1	0	1	3
0	0	0	0	0
1	3	0	0	4
1	1	0	0	2
0	0	0	0	0
0	2	1	0	3
1	3	2	1	7
0	3	0	0	3
4	13	3	2	22

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	5	0	0	6
0	1	0	0	1
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	1	2
0	3	0	0	3
0	7	0	1	8

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Thu, Apr 13, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Claremont
Indian Hill
Harrison

PROJECT #: SC3943
LOCATION #: 2
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	1	1	1	0.5	0.5	1	0.5	0.5	1	

AM	7:00 AM	2	68	2	0	69	1	5	2	2	1	1	0	153	
	7:15 AM	2	93	1	0	94	5	2	3	5	3	3	0	211	
	7:30 AM	5	82	5	3	129	14	6	5	9	1	15	5	279	
	7:45 AM	15	136	4	1	118	22	24	8	18	3	17	4	370	
	8:00 AM	10	143	8	6	153	5	20	29	13	11	11	2	411	
	8:15 AM	4	110	4	5	159	6	7	12	7	5	7	5	331	
	8:30 AM	3	71	7	2	126	9	1	7	5	5	2	1	239	
	8:45 AM	4	94	4	6	80	4	5	4	11	4	7	3	226	
	VOLUMES	45	797	35	23	928	66	70	70	70	33	63	20		2,220
	APPROACH %	5%	91%	4%	2%	91%	6%	33%	33%	33%	28%	54%	17%		
APP/DEPART	877	/	886	1,017	/	1,031	210	/	128	116	/	175		0	
BEGIN PEAK HR		7:30 AM													
VOLUMES	34	471	21	15	559	47	57	54	47	20	50	16		1,391	
APPROACH %	6%	90%	4%	2%	90%	8%	36%	34%	30%	23%	58%	19%			
PEAK HR FACTOR		0.817				0.913			0.637		0.896			0.846	
APP/DEPART	526	/	543	621	/	626	158	/	90	86	/	132		0	
PM	4:00 PM	9	152	5	4	106	9	5	12	11	4	8	9	334	
	4:15 PM	5	130	5	2	100	4	4	11	16	3	6	10	296	
	4:30 PM	2	123	7	1	109	5	5	9	11	2	4	8	286	
	4:45 PM	8	121	4	7	120	4	3	8	13	8	8	6	310	
	5:00 PM	10	136	4	6	108	5	5	11	10	19	9	20	343	
	5:15 PM	0	124	5	1	106	4	6	7	12	4	9	12	290	
	5:30 PM	3	144	5	1	96	4	6	5	8	9	7	12	300	
	5:45 PM	6	128	7	1	111	9	5	8	11	14	5	9	314	
	VOLUMES	43	1,058	42	23	856	44	39	71	92	63	56	86		2,473
	APPROACH %	4%	93%	4%	2%	93%	5%	19%	35%	46%	31%	27%	42%		
APP/DEPART	1,143	/	1,183	923	/	1,012	202	/	136	205	/	142		0	
BEGIN PEAK HR		5:00 PM													
VOLUMES	19	532	21	9	421	22	22	31	41	46	30	53		1,247	
APPROACH %	3%	93%	4%	2%	93%	5%	23%	33%	44%	36%	23%	41%			
PEAK HR FACTOR		0.941				0.934			0.904		0.672			0.909	
APP/DEPART	572	/	607	452	/	508	94	/	61	129	/	71		0	

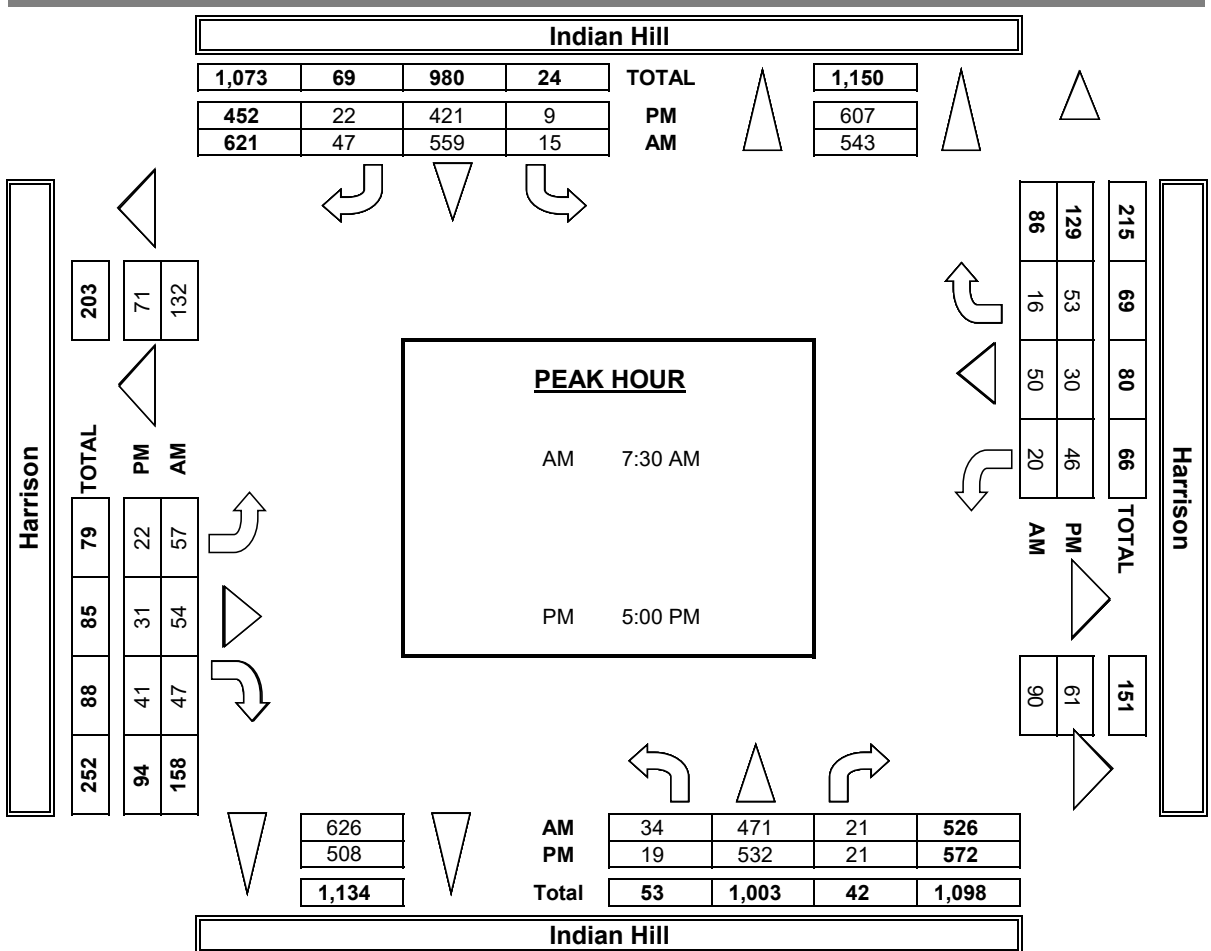
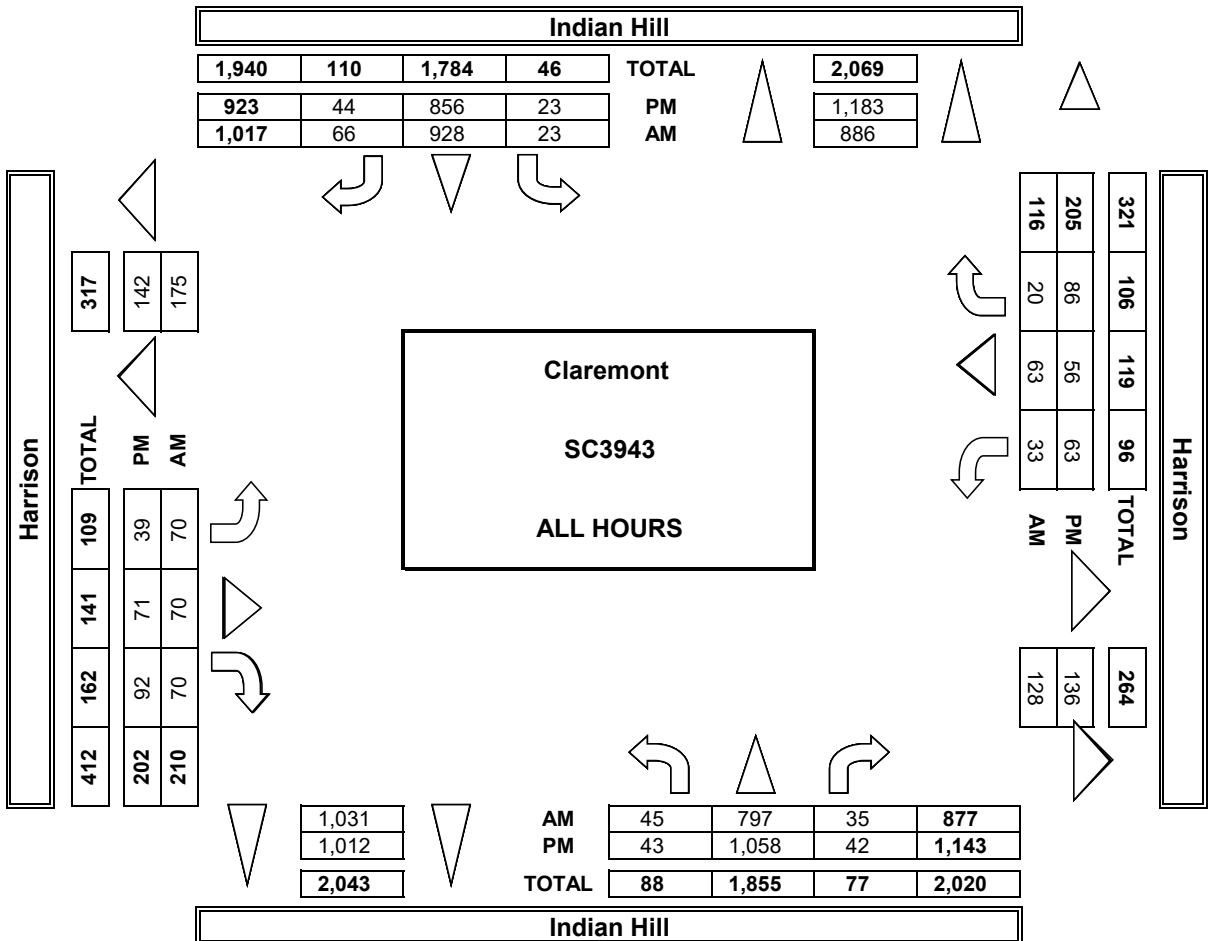


AM	7:00 AM	1	0	0	1	2
	7:15 AM	0	0	1	0	1
	7:30 AM	1	0	2	0	3
	7:45 AM	1	2	6	0	9
	8:00 AM	3	0	6	0	9
	8:15 AM	7	0	0	0	7
	8:30 AM	1	0	2	1	4
	8:45 AM	0	2	2	0	4
TOTAL	14	4	19	2	39	
PM	4:00 PM	7	3	1	3	14
	4:15 PM	3	0	0	2	5
	4:30 PM	2	2	2	3	9
	4:45 PM	1	0	1	1	3
	5:00 PM	1	0	0	2	3
	5:15 PM	1	0	0	2	3
	5:30 PM	1	1	7	2	11
	5:45 PM	1	0	0	9	10
TOTAL	17	6	11	24	58	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	0	1	2
0	0	1	0	1
1	0	2	0	3
1	2	6	0	9
3	0	6	0	9
7	0	0	0	7
1	0	2	1	4
0	2	2	0	4
14	4	19	2	39
7	3	1	3	14
3	0	0	2	5
2	2	2	3	9
1	0	1	1	3
1	0	0	2	3
1	0	0	2	3
1	1	7	2	11
1	0	0	9	10
17	6	11	24	58

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	0	0	1
0	0	0	0	0
1	0	2	0	3
1	2	5	0	8
2	0	5	0	7
7	0	0	0	7
1	0	2	1	4
0	2	2	0	4
13	4	16	1	34
7	3	1	3	14
3	0	0	2	5
2	2	2	3	9
1	0	1	1	3
1	0	0	2	3
1	0	0	1	2
1	1	7	2	11
1	0	0	9	10
17	6	11	23	57

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Sat, Apr 15, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Claremont Indian Hill Harrison	PROJECT #: SC3943 LOCATION #: 2 CONTROL: SIGNAL
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NOTES:	AM PM MD OTHER OTHER	◀ W	▲ N S ▼	E ▶
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Indian Hill			Indian Hill			Harrison			Harrison			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	1	1	1	0.5	0.5	1	0.5	0.5	1	

MD	11:00 AM	4	99	2	2	108	0	2	9	16	9	1	10	262
	11:15 AM	10	107	1	2	105	4	2	4	8	5	4	8	260
	11:30 AM	7	99	1	3	124	2	3	5	14	5	7	10	280
	11:45 AM	7	145	3	4	135	4	4	1	7	6	5	7	328
	12:00 PM	7	127	1	1	131	4	8	6	14	3	4	6	312
	12:15 PM	3	96	4	3	122	3	4	14	12	12	7	9	289
	12:30 PM	3	129	2	5	111	3	3	2	11	7	7	9	292
	12:45 PM	5	128	4	0	102	4	5	4	8	4	12	6	282
	1:00 PM	3	123	6	2	108	2	3	6	4	6	8	6	277
	1:15 PM	4	129	4	2	114	1	4	5	13	10	6	6	298
	1:30 PM	3	136	4	4	91	2	6	6	10	14	1	9	286
	1:45 PM	4	129	5	5	96	7	5	1	10	7	1	5	275
	VOLUMES	60	1,447	37	33	1,347	36	49	63	127	88	63	91	3,441
	APPROACH %	4%	94%	2%	2%	95%	3%	21%	26%	53%	36%	26%	38%	
APP/DEPART	1,544	/	1,587	1,416	/	1,562	239	/	133	242	/	159	0	
BEGIN PEAK HR	11:45 AM													
VOLUMES	20	497	10	13	499	14	19	23	44	28	23	31	1,221	
APPROACH %	4%	94%	2%	2%	95%	3%	22%	27%	51%	34%	28%	38%		
PEAK HR FACTOR		0.850			0.920			0.717			0.732		0.931	
APP/DEPART	527	/	547	526	/	571	86	/	46	82	/	57	0	
PM	02:00 PM	8	106	3	1	85	4	3	6	15	5	3	11	250
	2:15 PM	7	90	4	0	101	5	6	5	8	7	6	3	242
	2:30 PM	5	136	2	1	103	3	3	1	11	3	3	9	280
	2:45 PM	2	132	0	1	118	5	4	4	6	4	4	5	285
	3:00 PM	5	137	4	2	103	3	4	5	10	2	3	4	282
	3:15 PM	8	123	3	6	92	1	5	4	10	8	13	5	278
	3:30 PM	11	123	1	1	85	7	4	5	15	4	3	10	269
	3:45 PM	2	125	2	1	99	5	2	2	6	7	7	4	262
	4:00 PM	4	129	2	2	113	10	2	3	8	7	7	7	294
	4:15 PM	4	101	3	0	99	6	7	7	4	4	5	6	246
	4:30 PM	6	128	3	3	116	9	4	2	13	2	1	4	291
	4:45 PM	4	115	3	1	97	4	2	2	8	10	2	1	249
	VOLUMES	66	1,445	30	19	1,211	62	46	46	114	63	57	69	3,228
	APPROACH %	4%	94%	2%	1%	94%	5%	22%	22%	55%	33%	30%	37%	
APP/DEPART	1,541	/	1,560	1,292	/	1,388	206	/	95	189	/	185	0	
BEGIN PEAK HR	2:30 PM													
VOLUMES	20	528	9	10	416	12	16	14	37	17	23	23	1,125	
APPROACH %	4%	95%	2%	2%	95%	3%	24%	21%	55%	27%	37%	37%		
PEAK HR FACTOR		0.954			0.883			0.882			0.606		0.987	
APP/DEPART	557	/	567	438	/	470	67	/	33	63	/	55	0	

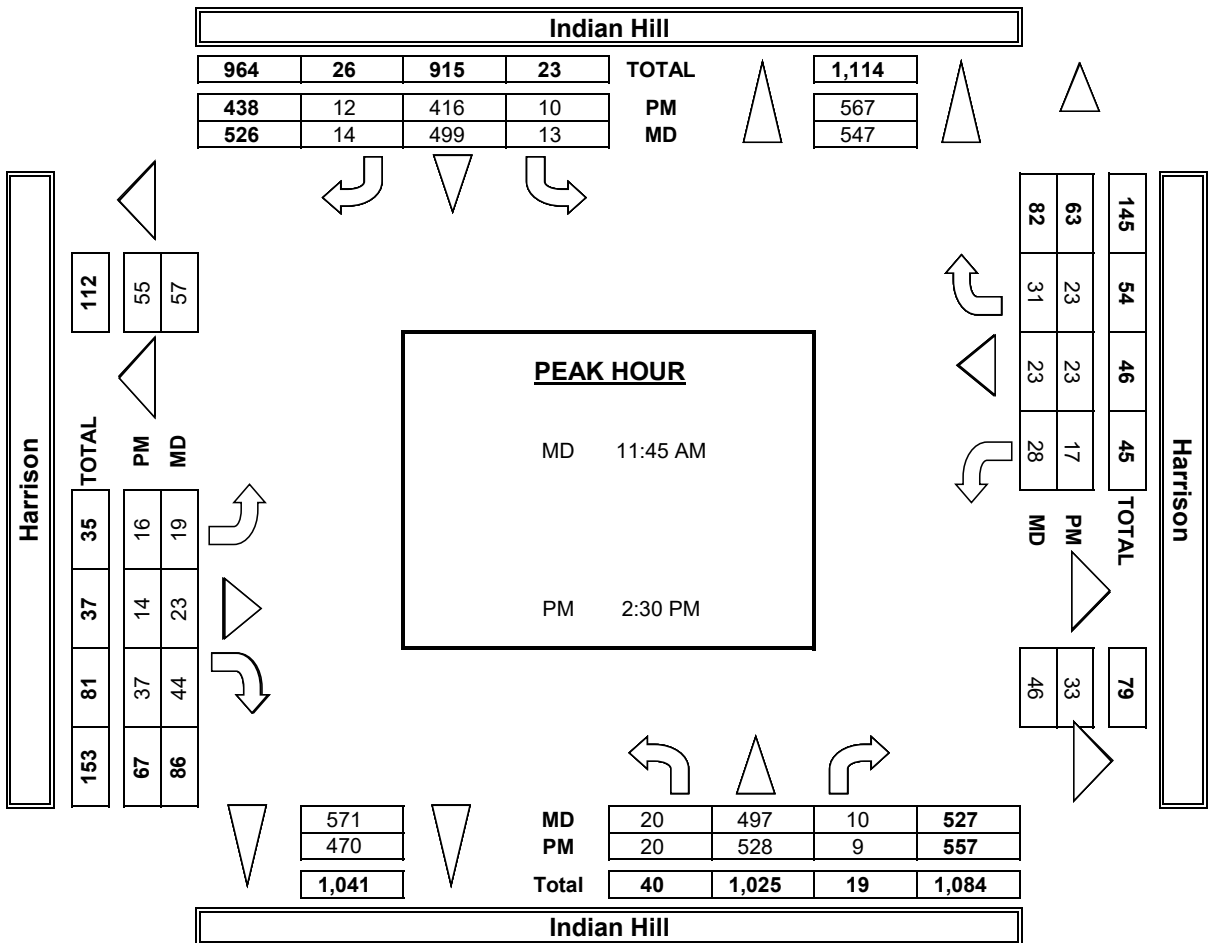
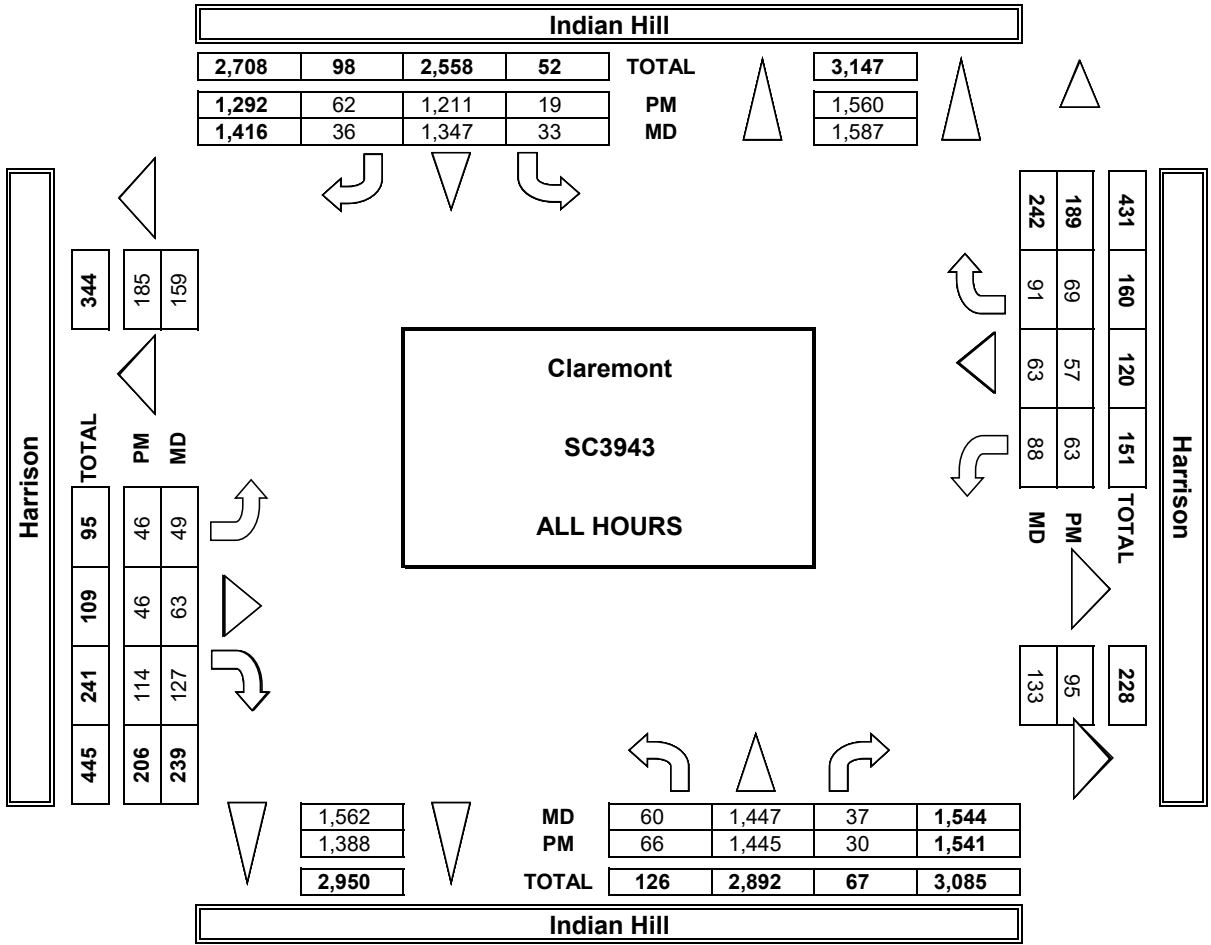


MD	11:00 AM	4	0	5	1	10
	11:15 AM	2	2	4	2	10
	11:30 AM	4	0	3	2	9
	11:45 AM	0	2	6	3	11
	12:00 PM	2	0	2	2	6
	12:15 PM	2	5	1	6	14
	12:30 PM	4	3	6	3	16
	12:45 PM	0	1	2	3	6
	1:00 PM	1	1	3	0	5
	1:15 PM	0	0	5	4	9
	1:30 PM	0	5	2	1	8
	1:45 PM	1	0	4	0	5
	TOTAL	20	19	43	27	109
	PM	2:00 PM	1	4	2	4
2:15 PM		2	0	3	1	6
2:30 PM		2	0	4	0	6
2:45 PM		0	1	0	0	1
3:00 PM		1	2	3	4	10
3:15 PM		2	0	9	6	17
3:30 PM		1	1	3	5	10
3:45 PM		1	7	5	7	20
4:00 PM		3	0	6	2	11
4:15 PM		2	2	0	3	7
4:30 PM		1	4	1	3	9
4:45 PM		0	0	2	1	3
TOTAL		16	21	38	36	111

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
4	0	5	1	10
2	2	4	2	10
4	0	3	2	9
0	2	6	3	11
2	0	2	2	6
2	5	1	6	14
4	3	6	3	16
0	1	2	3	6
1	1	3	0	5
0	0	5	4	9
0	5	2	1	8
1	0	4	0	5
20	19	43	27	109
1	4	2	4	11
2	0	3	1	6
2	0	4	0	6
0	1	0	0	1
1	2	3	4	10
2	0	9	6	17
1	1	3	5	10
1	7	5	7	20
3	0	6	2	11
2	2	0	3	7
1	4	1	3	9
0	0	2	1	3
16	21	38	36	111

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
4	0	5	1	10
2	2	4	2	10
4	0	3	2	9
0	2	6	3	11
2	0	2	0	4
1	4	1	6	12
4	3	4	2	13
0	1	1	3	5
1	1	3	0	5
0	0	5	4	9
0	5	2	1	8
0	0	2	0	2
18	18	38	24	98
1	4	1	4	10
1	0	2	1	4
1	0	3	0	4
0	1	0	0	1
0	2	2	2	6
2	0	8	4	14
0	1	2	5	8
1	6	5	4	16
3	0	4	1	8
2	0	0	3	5
1	4	1	3	9
0	0	2	1	3
12	18	30	28	88

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Thu, Apr 13, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Claremont
Indian Hill
1st

PROJECT #: SC3943
LOCATION #: 3
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Indian Hill			Indian Hill			1st			1st			
	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 1	ER 1	WL 1	WT 0.5	WR 0.5	

AM	7:00 AM	5	74	11	1	67	2	0	4	5	8	3	2	182
	7:15 AM	3	104	21	7	83	3	0	4	5	14	2	9	255
	7:30 AM	10	103	19	2	110	3	0	5	7	17	7	7	290
	7:45 AM	13	173	35	9	116	9	3	4	5	12	5	7	391
	8:00 AM	19	164	41	8	133	5	0	4	8	14	11	9	416
	8:15 AM	8	110	30	8	139	7	2	4	11	24	8	17	368
	8:30 AM	18	89	34	8	118	5	2	4	13	18	11	12	332
	8:45 AM	19	111	37	9	74	7	2	9	13	17	9	17	324
	VOLUMES	95	928	228	52	840	41	9	38	67	124	56	80	2,558
	APPROACH %	8%	74%	18%	6%	90%	4%	8%	33%	59%	48%	22%	31%	
APP/DEPART	1,251	/	1,018	933	/	1,028	114	/	320	260	/	192	0	
BEGIN PEAK HR	7:45 AM													
VOLUMES	58	536	140	33	506	26	7	16	37	68	35	45	1,507	
APPROACH %	8%	73%	19%	6%	90%	5%	12%	27%	62%	46%	24%	30%		
PEAK HR FACTOR	0.819			0.917			0.789			0.755			0.906	
APP/DEPART	734	/	588	565	/	608	60	/	192	148	/	119	0	
PM	4:00 PM	20	136	43	11	137	11	6	14	24	34	13	21	470
	4:15 PM	15	113	41	10	97	7	5	11	27	21	8	16	371
	4:30 PM	21	108	22	17	98	12	8	5	20	37	17	10	375
	4:45 PM	29	107	30	12	123	15	12	8	17	28	13	18	412
	5:00 PM	24	119	31	6	116	16	6	21	24	33	15	21	432
	5:15 PM	21	105	24	8	94	12	6	10	18	30	17	24	369
	5:30 PM	29	124	34	11	101	21	4	7	29	23	10	26	419
	5:45 PM	33	98	39	13	107	18	8	11	25	28	18	8	406
	VOLUMES	192	910	264	88	873	112	55	87	184	234	111	144	3,254
	APPROACH %	14%	67%	19%	8%	81%	10%	17%	27%	56%	48%	23%	29%	
APP/DEPART	1,366	/	1,109	1,073	/	1,281	326	/	449	489	/	415	0	
BEGIN PEAK HR	4:45 PM													
VOLUMES	103	455	119	37	434	64	28	46	88	114	55	89	1,632	
APPROACH %	15%	67%	18%	7%	81%	12%	17%	28%	54%	44%	21%	34%		
PEAK HR FACTOR	0.905			0.892			0.794			0.908			0.944	
APP/DEPART	677	/	572	535	/	629	162	/	209	258	/	222	0	

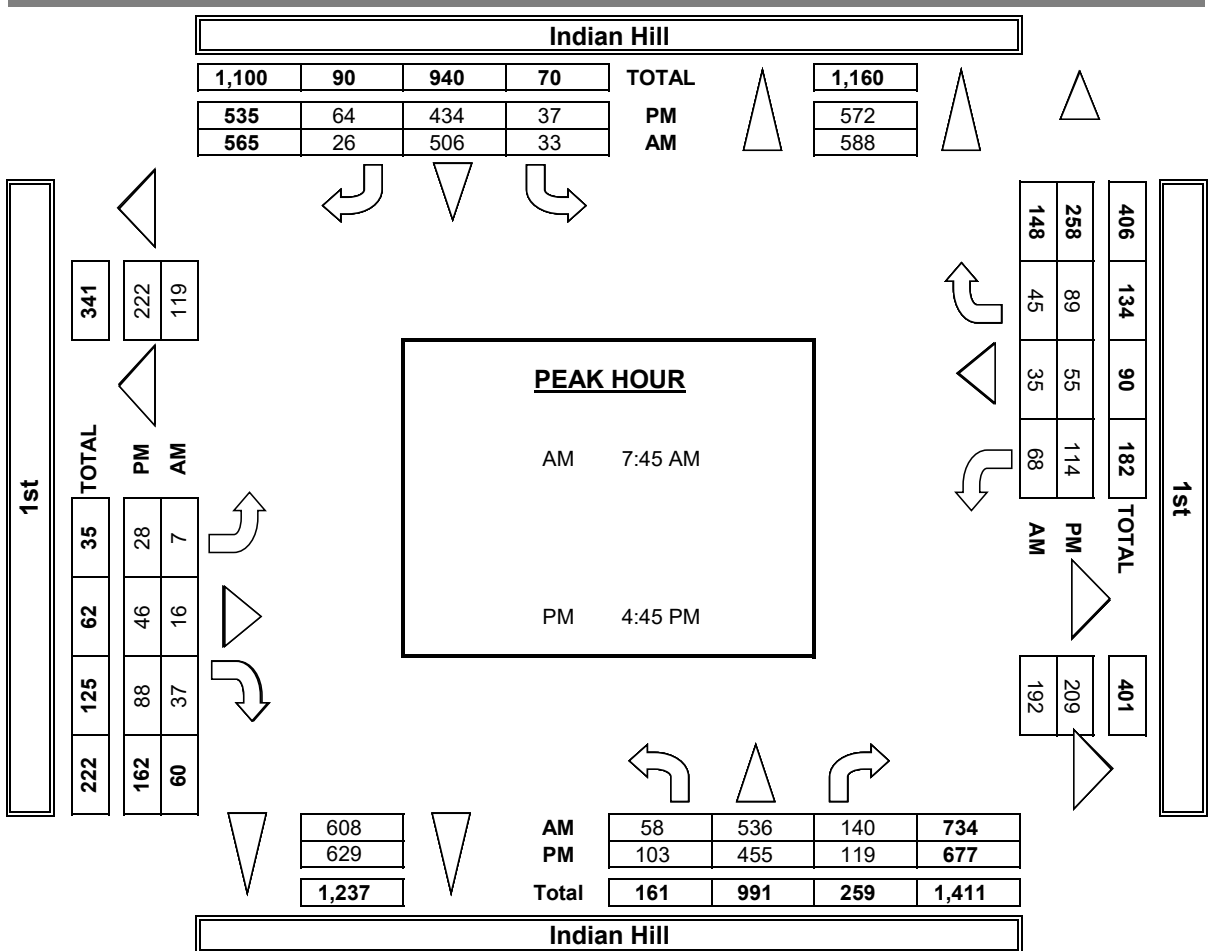
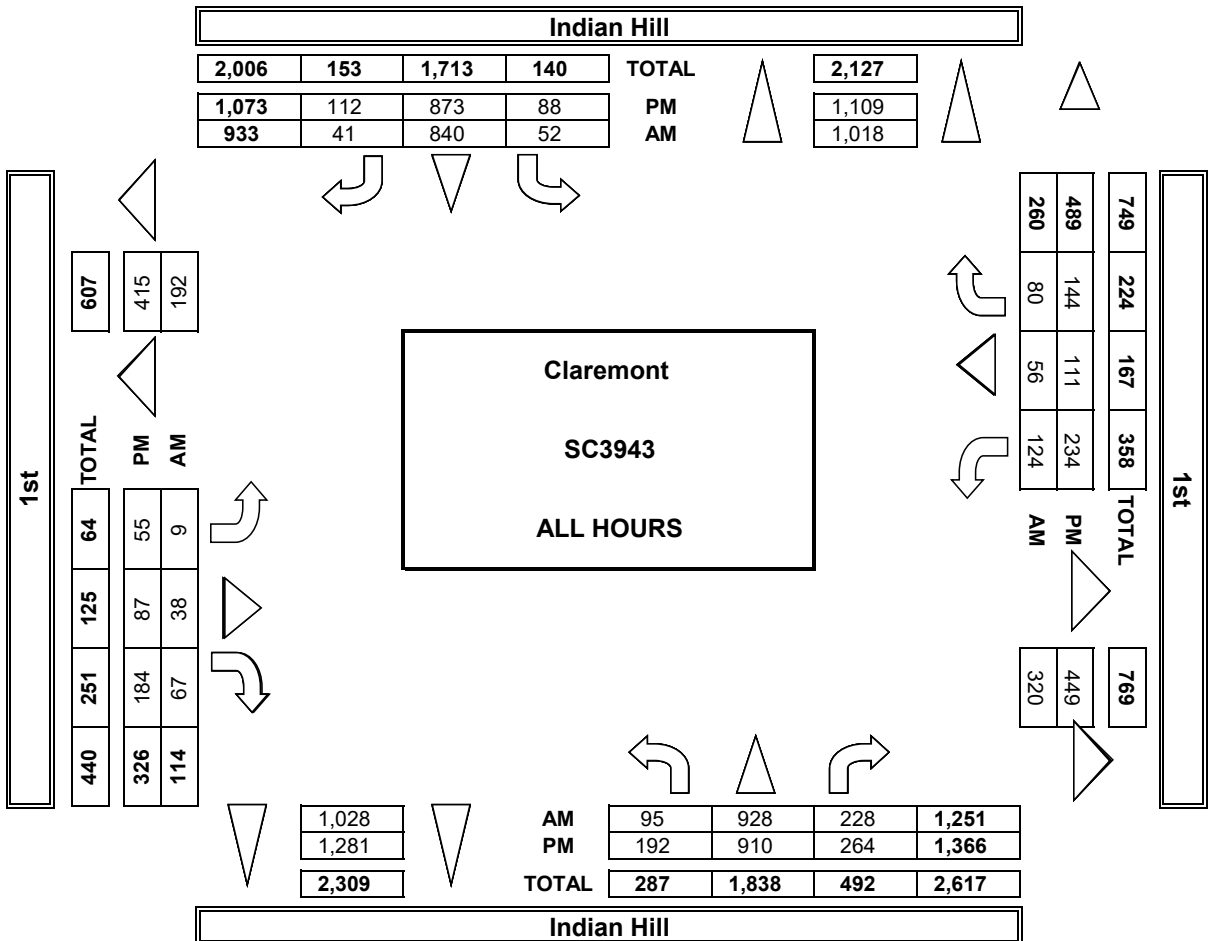


AM	7:00 AM	2	0	0	1	3
	7:15 AM	0	0	2	1	3
	7:30 AM	1	3	3	1	8
	7:45 AM	1	1	0	0	2
	8:00 AM	3	1	2	1	7
	8:15 AM	2	1	1	1	5
	8:30 AM	5	0	0	2	7
	8:45 AM	5	1	1	3	10
TOTAL	19	7	9	10	45	
PM	4:00 PM	14	10	10	18	52
	4:15 PM	29	5	5	24	63
	4:30 PM	22	13	3	14	52
	4:45 PM	23	10	4	24	61
	5:00 PM	19	9	5	24	57
	5:15 PM	24	4	5	4	37
	5:30 PM	15	7	4	19	45
	5:45 PM	23	11	1	25	60
TOTAL	169	69	37	152	427	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	0	0	1	3
0	0	2	1	3
1	3	3	1	8
1	1	0	0	2
3	1	2	1	7
2	1	1	1	5
5	0	0	2	7
5	1	1	3	10
19	7	9	10	45
14	10	10	18	52
29	5	5	24	63
22	13	3	14	52
23	10	4	24	61
19	9	5	24	57
24	4	5	4	37
15	7	4	19	45
23	11	1	25	60
169	69	37	152	427

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	0	1	2
0	0	1	1	2
1	3	2	1	7
1	1	0	0	2
3	1	2	1	7
2	1	1	1	5
5	0	0	2	7
5	1	1	3	10
18	7	7	10	42
14	9	10	17	50
28	4	5	23	60
22	12	3	14	51
22	10	2	24	58
19	9	5	23	56
24	4	5	3	36
14	7	4	19	44
23	11	1	25	60
166	66	35	148	415

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Sat, Apr 15, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Claremont Indian Hill 1st	PROJECT #: LOCATION #: CONTROL:	SC3943 3 SIGNAL
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NOTES: Queue NB MD/PM	AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼
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LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Indian Hill	Indian Hill	Indian Hill	1st	1st	1st	1st	1st	1st	1st	1st		
	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 1	ER 1	WL 1	WT 0.5	WR 0.5	

MD	11:00 AM	24	110	32	9	105	16	6	7	13	19	5	22	368
	11:15 AM	23	119	46	5	97	13	8	8	12	36	12	31	410
	11:30 AM	24	98	31	8	88	9	7	4	13	29	9	18	338
	11:45 AM	28	131	50	9	113	19	10	9	18	23	13	27	450
	12:00 PM	26	100	45	11	101	20	7	8	20	35	9	23	405
	12:15 PM	29	104	37	10	115	20	7	12	16	28	15	24	417
	12:30 PM	29	116	31	6	108	27	8	10	28	32	12	27	434
	12:45 PM	26	97	41	7	87	28	6	9	13	27	11	18	370
	1:00 PM	22	106	20	8	95	15	9	11	26	25	13	22	372
	1:15 PM	32	100	33	8	133	17	11	8	17	28	11	21	419
	1:30 PM	25	99	31	6	102	19	10	9	31	24	11	18	385
	1:45 PM	23	111	35	4	102	13	10	4	25	24	6	24	381
	VOLUMES	311	1,291	432	91	1,246	216	99	99	232	330	127	275	4,749
	APPROACH %	15%	63%	21%	6%	80%	14%	23%	23%	54%	45%	17%	38%	
APP/DEPART	2,034	/	1,665	1,553	/	1,774	430	/	656	732	/	654	0	
BEGIN PEAK HR	11:45 AM													
VOLUMES	112	451	163	36	437	86	32	39	82	118	49	101	1,706	
APPROACH %	15%	62%	22%	6%	78%	15%	21%	25%	54%	44%	18%	38%		
PEAK HR FACTOR		0.868			0.964			0.832			0.944		0.948	
APP/DEPART	726	/	584	559	/	627	153	/	248	268	/	247	0	
PM	02:00 PM	29	95	28	12	80	9	7	9	23	16	6	17	331
	2:15 PM	34	97	20	3	98	20	8	11	20	16	14	19	360
	2:30 PM	19	111	24	6	109	14	11	6	24	30	19	19	392
	2:45 PM	24	112	35	10	100	15	10	17	32	21	16	17	409
	3:00 PM	23	104	33	10	88	20	6	15	17	26	11	15	368
	3:15 PM	31	111	30	8	90	14	8	11	24	24	20	20	391
	3:30 PM	27	102	31	12	96	19	11	10	29	25	11	17	390
	3:45 PM	41	117	31	5	80	15	16	13	27	26	23	17	411
	4:00 PM	42	110	23	8	106	15	15	8	35	25	12	12	411
	4:15 PM	30	98	23	16	99	12	6	8	26	21	16	21	376
	4:30 PM	36	104	15	14	92	17	17	10	22	23	11	15	376
	4:45 PM	27	99	24	4	82	14	7	12	25	26	17	17	354
	VOLUMES	363	1,260	317	108	1,120	184	122	130	304	279	176	206	4,569
	APPROACH %	19%	65%	16%	8%	79%	13%	22%	23%	55%	42%	27%	31%	
APP/DEPART	1,940	/	1,588	1,412	/	1,691	556	/	568	661	/	722	0	
BEGIN PEAK HR	3:15 PM													
VOLUMES	141	440	115	33	372	63	50	42	115	100	66	66	1,603	
APPROACH %	20%	63%	17%	7%	79%	13%	24%	20%	56%	43%	28%	28%		
PEAK HR FACTOR		0.921			0.907			0.892			0.879		0.975	
APP/DEPART	696	/	556	468	/	582	207	/	195	232	/	270	0	

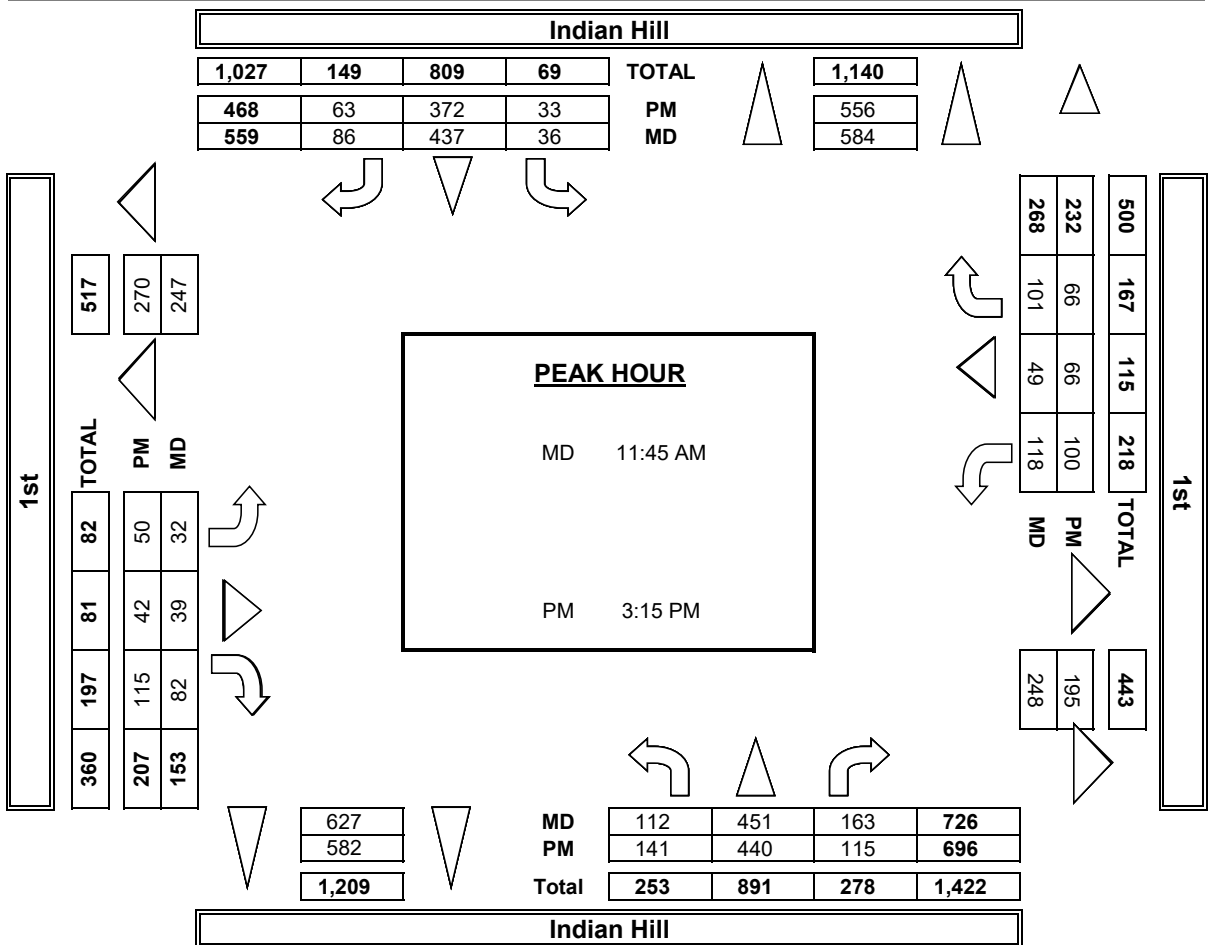
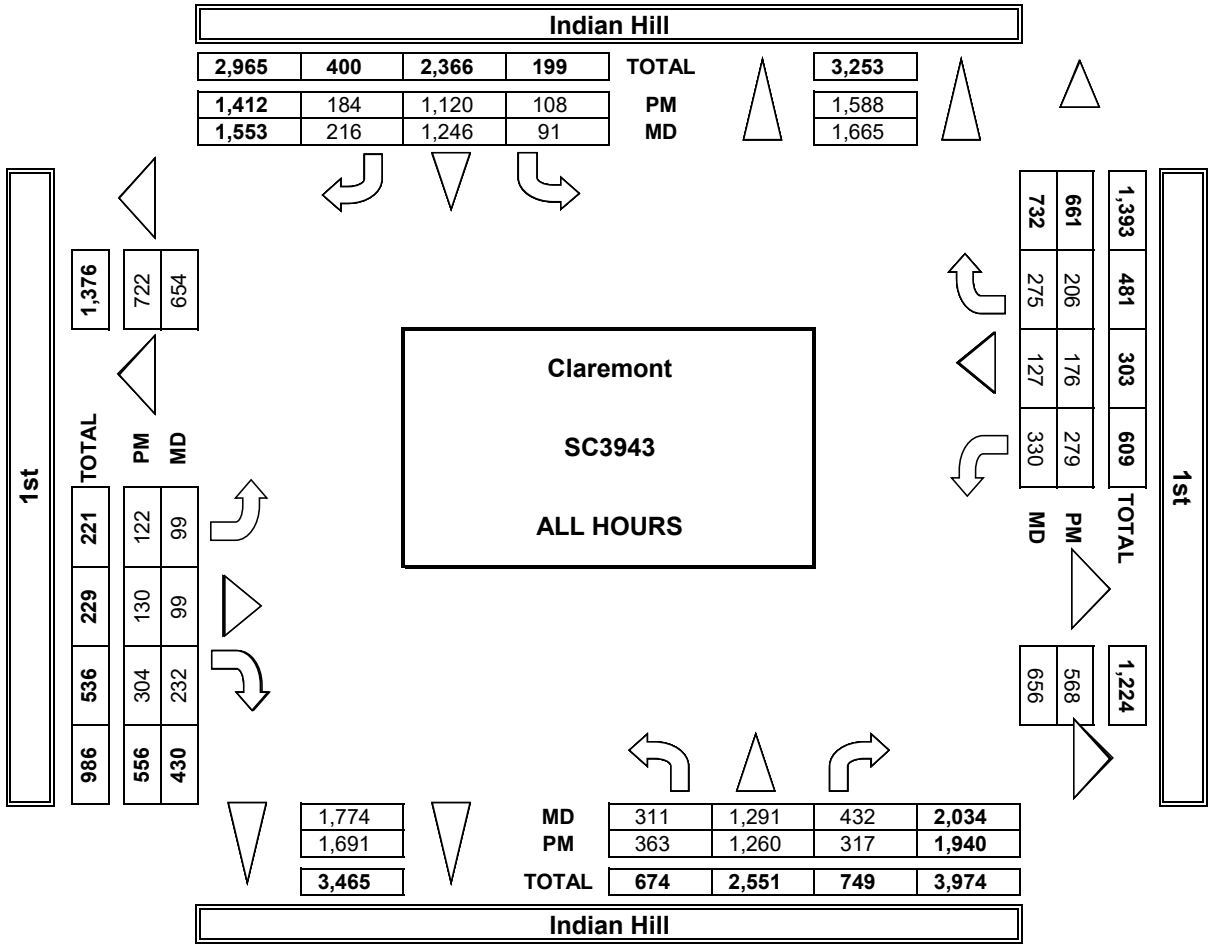


MD	11:00 AM	31	13	4	25	73
	11:15 AM	23	7	5	13	48
	11:30 AM	26	7	1	19	53
	11:45 AM	22	11	6	17	56
	12:00 PM	37	29	6	20	92
	12:15 PM	41	16	4	34	95
	12:30 PM	36	21	10	62	129
	12:45 PM	55	13	16	23	107
	1:00 PM	35	21	8	37	101
	1:15 PM	42	31	10	23	106
	1:30 PM	45	26	6	54	131
	1:45 PM	47	39	12	30	128
	TOTAL	440	234	88	357	1,119
	PM	2:00 PM	69	34	17	28
2:15 PM		68	19	6	64	157
2:30 PM		22	26	0	39	87
2:45 PM		57	38	13	63	171
3:00 PM		44	40	9	49	142
3:15 PM		44	18	2	33	97
3:30 PM		42	27	18	61	148
3:45 PM		43	27	5	53	128
4:00 PM		50	20	9	35	114
4:15 PM		62	18	8	49	137
4:30 PM		32	21	11	40	104
4:45 PM		22	19	12	28	81
TOTAL		555	307	110	542	1,514

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
31	13	4	25	73
23	7	5	13	48
26	7	1	19	53
22	11	6	17	56
37	29	6	20	92
41	16	4	34	95
36	21	10	62	129
55	13	16	23	107
35	21	8	37	101
42	31	10	23	106
45	26	6	54	131
47	39	12	30	128
440	234	88	357	1,119
69	34	17	28	148
68	19	6	64	157
22	26	0	39	87
57	38	13	63	171
44	40	9	49	142
44	18	2	33	97
42	27	18	61	148
43	27	5	53	128
50	20	9	35	114
62	18	8	49	137
32	21	11	40	104
22	19	12	28	81
555	307	110	542	1,514

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
27	11	3	25	66
23	6	3	13	45
26	7	1	19	53
20	10	6	17	53
30	27	5	18	80
39	16	4	34	93
34	20	10	60	124
52	13	16	23	104
35	18	8	37	98
42	30	9	23	104
44	23	6	54	127
44	38	11	30	123
416	219	82	353	1,070
68	34	17	28	147
65	19	6	62	152
20	26	0	39	85
57	37	13	63	170
44	38	8	43	133
44	18	2	33	97
40	22	16	60	138
43	22	5	51	121
48	19	8	34	109
60	17	8	49	134
30	21	11	38	100
20	17	12	28	77
539	290	106	528	1,463

AimTD LLC
TURNING MOVEMENT COUNTS



**1st St & College Ave
Claremont California
Thursday, January 25, 2024**

Time	Southbound College Ave						Westbound 1st St						Northbound College Ave						Eastbound 1st St						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:00 AM	0	2	8	4	1	14	0	5	10	5	2	20	0	3	16	8	1	27	0	1	11	4	0	16	77
7:15 AM	0	8	14	2	0	24	0	4	13	9	2	26	0	5	20	3	5	28	0	2	12	7	1	21	99
7:30 AM	0	2	14	2	5	18	0	13	17	16	1	46	0	5	38	4	2	47	0	6	9	7	1	22	133
7:45 AM	0	9	39	1	3	49	0	7	14	8	3	29	0	7	68	13	1	88	0	5	13	9	2	27	193
Hourly Total	0	21	75	9	9	105	0	29	54	38	8	121	0	20	142	28	9	190	0	14	45	27	4	86	502
8:00 AM	0	5	43	5	1	53	1	5	18	14	1	38	0	10	78	8	3	96	1	5	24	6	1	36	223
8:15 AM	0	10	47	4	1	61	0	3	27	9	2	39	0	7	43	3	4	53	0	4	17	11	0	32	185
8:30 AM	0	11	25	3	0	39	0	6	27	8	1	41	0	5	30	3	0	38	0	4	15	3	3	22	140
8:45 AM	0	5	23	2	1	30	0	2	20	8	1	30	0	10	57	3	1	70	1	6	14	6	1	27	157
Hourly Total	0	31	138	14	3	183	1	16	92	39	5	148	0	32	208	17	8	257	2	19	70	26	5	117	705
4:00 PM	0	9	53	9	1	71	0	8	26	9	3	43	0	4	32	9	7	45	5	8	30	11	1	54	213
4:15 PM	0	7	52	10	4	69	0	5	20	6	4	31	0	9	27	5	2	41	0	7	20	13	5	40	181
4:30 PM	0	7	55	13	2	75	0	16	41	11	5	68	0	14	35	11	4	60	1	8	24	17	5	50	253
4:45 PM	0	10	52	11	1	73	0	6	23	7	5	36	0	9	40	9	1	58	1	7	21	8	7	37	204
Hourly Total	0	33	212	43	8	288	0	35	110	33	17	178	0	36	134	34	14	204	7	30	95	49	18	181	851
5:00 PM	0	12	77	5	12	94	2	5	31	12	5	50	0	7	29	13	10	49	0	6	35	23	7	64	257
5:15 PM	0	11	63	15	5	89	0	11	28	10	2	49	0	10	20	15	6	45	5	4	29	17	5	55	238
5:30 PM	0	9	36	11	1	56	0	7	15	10	0	32	0	18	16	5	5	39	4	8	29	13	6	54	181
5:45 PM	0	9	41	11	4	61	1	5	23	14	1	43	0	5	25	10	2	40	2	7	20	11	4	40	184
Hourly Total	0	41	217	42	22	300	3	28	97	46	8	174	0	40	90	43	23	173	11	25	113	64	22	213	860
4 Hours TOTAL	0	126	642	108	42	876	4	108	353	156	38	621	0	128	574	122	54	824	20	88	323	166	49	597	2918
Cars	0	126	640	108	40	874	4	107	314	156	33	581	0	127	570	120	52	817	20	88	277	166	47	551	2823
Heavy Vehicles	0	0	2	0	2	2	0	1	39	0	5	40	0	1	4	2	2	7	0	0	46	0	2	46	95
Heavy Vehicle %	0.00%	0.00%	0.31%	0.00%	4.76%	0.23%	0.00%	0.93%	11.05%	0.00%	13.16%	6.44%	0.00%	0.78%	0.70%	1.64%	3.70%	0.85%	0.00%	0.00%	14.24%	0.00%	4.08%	7.71%	3.26%

**1st St & College Ave
Claremont California
Thursday, January 25, 2024
AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:45 AM	0	9	39	1	3	49	0	7	14	8	3	29	0	7	68	13	1	88	0	5	13	9	2	27	193
8:00 AM	0	5	43	5	1	53	1	5	18	14	1	38	0	10	78	8	3	96	1	5	24	6	1	36	223
8:15 AM	0	10	47	4	1	61	0	3	27	9	2	39	0	7	43	3	4	53	0	4	17	11	0	32	185
8:30 AM	0	11	25	3	0	39	0	6	27	8	1	41	0	5	30	3	0	38	0	4	15	3	3	22	140
Peak Hour Total	0	35	154	13	5	202	1	21	86	39	7	147	0	29	219	27	8	275	1	18	69	29	6	117	741
PHF	0.000	0.795	0.819	0.650	0.417	0.828	0.250	0.750	0.796	0.696	0.583	0.896	0.000	0.725	0.702	0.519	0.500	0.716	0.250	0.900	0.719	0.659	0.500	0.813	0.831

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:30 PM	0	7	55	13	2	75	0	16	41	11	5	68	0	14	35	11	4	60	1	8	24	17	5	50	253
4:45 PM	0	10	52	11	1	73	0	6	23	7	5	36	0	9	40	9	1	58	1	7	21	8	7	37	204
5:00 PM	0	12	77	5	12	94	2	5	31	12	5	50	0	7	29	13	10	49	0	6	35	23	7	64	257
5:15 PM	0	11	63	15	5	89	0	11	28	10	2	49	0	10	20	15	6	45	5	4	29	17	5	55	238
Peak Hour Total	0	40	247	44	20	331	2	38	123	40	17	203	0	40	124	48	21	212	7	25	109	65	24	206	952
PHF	0.000	0.833	0.802	0.733	0.417	0.880	0.250	0.594	0.750	0.833	0.850	0.746	0.000	0.714	0.775	0.800	0.525	0.883	0.350	0.781	0.779	0.707	0.857	0.805	0.926

Total Vehicles On Leg	1694
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
876			818		
Southbound					
Cars	108	640	126	0	40
Heavy	0	2	0	0	2
Total	108	642	126	0	42



Total Vehicles on Leg 1206	Vehicles Entering Intersection 597	Eastbound	Cars	Heavy	Total
			47	2	49
			20	0	20
	Vehicles Exiting Intersection 609		88	0	88
			277	46	323
			166	0	166



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 621	Total Vehicles on Leg 1196
156	0	156			
314	39	353			
Vehicles Exiting Intersection 575	107	1		108	
	4	0		4	
	33	5		38	



4 Hour Volumes

Cars	52	0	127	570	120
Heavy	2	0	1	4	2
Total	54	0	128	574	122
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
624			916		
Total Vehicles On Leg			1740		



**1st St & College Ave
Claremont California
Saturday, January 27, 2024**

Time	Southbound College Ave						Westbound 1st St						Northbound College Ave						Eastbound 1st St						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	5	38	10	5	53	0	3	22	5	4	30	0	13	23	5	6	41	2	5	19	10	8	36	160
11:15 AM	0	3	37	5	4	45	0	2	23	9	8	34	0	15	32	8	8	55	4	3	11	15	5	33	167
11:30 AM	0	11	29	6	7	46	0	5	16	8	4	29	0	15	41	9	4	65	2	7	19	15	14	43	183
11:45 AM	0	10	35	6	3	51	0	3	19	18	4	40	0	15	38	10	3	63	4	5	19	13	4	41	195
Hourly Total	0	29	139	27	19	195	0	13	80	40	20	133	0	58	134	32	21	224	12	20	68	53	31	153	705
12:00 PM	0	8	35	19	9	62	0	4	19	9	5	32	0	11	38	8	4	57	5	8	23	17	10	53	204
12:15 PM	0	8	34	13	4	55	0	5	22	11	10	38	0	12	30	5	10	47	3	11	18	5	9	37	177
12:30 PM	0	14	38	5	3	57	0	5	26	15	6	46	0	8	42	4	6	54	3	6	26	16	10	51	208
12:45 PM	0	12	28	9	3	49	0	10	24	11	4	45	0	18	40	5	0	63	7	7	17	13	3	44	201
Hourly Total	0	42	135	46	19	223	0	24	91	46	25	161	0	49	150	22	20	221	18	32	84	51	32	185	790
1:00 PM	0	9	42	15	4	66	1	5	27	10	3	43	0	11	24	7	7	42	3	9	18	16	4	46	197
1:15 PM	0	7	46	10	3	63	0	5	41	18	3	64	0	9	38	6	1	53	2	6	24	17	9	49	229
1:30 PM	0	1	35	6	4	42	0	5	23	9	3	37	0	6	36	6	3	48	4	12	22	16	3	54	181
1:45 PM	0	7	43	10	1	60	0	6	20	13	2	39	0	11	26	6	2	43	5	8	24	11	3	48	190
Hourly Total	0	24	166	41	12	231	1	21	111	50	11	183	0	37	124	25	13	186	14	35	88	60	19	197	797
2:00 PM	0	10	44	14	4	68	0	7	21	9	8	37	0	10	30	5	8	45	3	6	26	15	4	50	200
2:15 PM	0	9	32	8	1	49	0	6	28	7	12	41	0	6	25	2	5	33	2	2	22	12	10	38	161
2:30 PM	0	8	39	7	4	54	0	4	20	4	10	28	0	12	27	5	1	44	2	9	24	18	6	53	179
2:45 PM	0	7	37	7	1	51	0	3	24	8	5	35	0	6	36	6	2	48	3	4	27	8	7	42	176
Hourly Total	0	34	152	36	10	222	0	20	93	28	35	141	0	34	118	18	16	170	10	21	99	53	27	183	716
4 Hours TOTAL	0	129	592	150	60	871	1	78	375	164	91	618	0	178	526	97	70	801	54	108	339	217	109	718	3008
Cars	0	129	590	149	54	868	1	78	350	164	80	593	0	176	523	96	65	795	54	108	316	217	102	695	2951
Heavy Vehicles	0	0	2	1	6	3	0	0	25	0	11	25	0	2	3	1	5	6	0	0	23	0	7	23	57
Heavy Vehicle %	0.00%	0.00%	0.34%	0.67%	10.00%	0.34%	0.00%	0.00%	6.67%	0.00%	12.09%	4.05%	0.00%	1.12%	0.57%	1.03%	7.14%	0.75%	0.00%	0.00%	6.78%	0.00%	6.42%	3.20%	1.89%

**1st St & College Ave
Claremont California
Saturday, January 27, 2024**

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	5	38	10	5	53	0	3	22	5	4	30	0	13	23	5	6	41	2	5	19	10	8	36	160
11:15 AM	0	3	37	5	4	45	0	2	23	9	8	34	0	15	32	8	8	55	4	3	11	15	5	33	167
11:30 AM	0	11	29	6	7	46	0	5	16	8	4	29	0	15	41	9	4	65	2	7	19	15	14	43	183
11:45 AM	0	10	35	6	3	51	0	3	19	18	4	40	0	15	38	10	3	63	4	5	19	13	4	41	195
Peak Hour Total	0	29	139	27	19	195	0	13	80	40	20	133	0	58	134	32	21	224	12	20	68	53	31	153	705
PHF	0.000	0.659	0.914	0.675	0.679	0.920	0.000	0.650	0.870	0.556	0.625	0.831	0.000	0.967	0.817	0.800	0.656	0.862	0.750	0.714	0.895	0.883	0.554	0.890	0.904

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
12:30 PM	0	14	38	5	3	57	0	5	26	15	6	46	0	8	42	4	6	54	3	6	26	16	10	51	208
12:45 PM	0	12	28	9	3	49	0	10	24	11	4	45	0	18	40	5	0	63	7	7	17	13	3	44	201
1:00 PM	0	9	42	15	4	66	1	5	27	10	3	43	0	11	24	7	7	42	3	9	18	16	4	46	197
1:15 PM	0	7	46	10	3	63	0	5	41	18	3	64	0	9	38	6	1	53	2	6	24	17	9	49	229
Peak Hour Total	0	42	154	39	13	235	1	25	118	54	16	198	0	46	144	22	14	212	15	28	85	62	26	190	835
PHF	0.000	0.750	0.837	0.650	0.813	0.890	0.250	0.625	0.720	0.750	0.667	0.773	0.000	0.639	0.857	0.786	0.500	0.841	0.536	0.778	0.817	0.912	0.650	0.931	0.912

Total Vehicles On Leg	1669
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
871			798		
Southbound					
Cars	149	590	129	0	54
Heavy	1	2	0	0	6
Total	150	592	129	0	60



Total Vehicles on Leg 1475	Vehicles Entering Intersection 718	Eastbound	Cars	Heavy	Total	
			102	7	109	
			54	0	54	
	Vehicles Exiting Intersection 757			108	0	108
			316	23	339	
			217	0	217	



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 618	Total Vehicles on Leg 1184
164	0	164			
350	25	375			
78	0	78			
1	0	1			
80	11	91		Vehicles Exiting Intersection 566	



4 Hour Volumes

Cars	65	0	176	523	96
Heavy	5	0	2	3	1
Total	70	0	178	526	97
Northbound					
Vehicles Entering Intersection 801			Vehicles Exiting Intersection 887		
Total Vehicles On Leg			1688		



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Tue, Oct 4, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

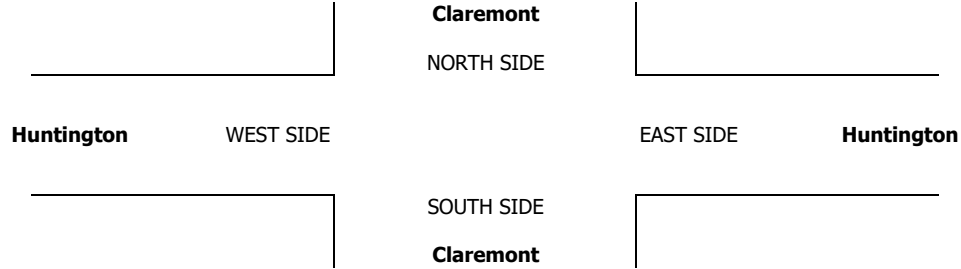
Claremont
Claremont
Huntington

PROJECT #: SC3668
LOCATION #: 4
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

LANES:	NORTHBOUND <small>Claremont</small>			SOUTHBOUND <small>Claremont</small>			EASTBOUND <small>1st</small>			WESTBOUND <small>Huntington</small>			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 0.5	WT 0.5	WR 1	

AM	7:00 AM	16	66	0	0	77	20	6	0	8	2	1	0	196	
	7:15 AM	15	74	0	1	70	12	13	1	8	1	1	0	196	
	7:30 AM	26	105	1	0	121	21	6	0	11	1	0	0	292	
	7:45 AM	46	150	1	1	112	32	11	0	9	3	0	1	366	
	8:00 AM	18	121	2	0	139	31	10	0	12	0	0	0	333	
	8:15 AM	20	92	1	0	79	24	15	0	9	2	0	0	242	
	8:30 AM	14	80	0	1	82	24	15	2	5	0	0	0	223	
	8:45 AM	19	82	0	0	65	26	15	0	7	0	0	0	214	
	VOLUMES	174	770	5	3	745	190	91	3	69	9	2	1		2,062
	APPROACH %	18%	81%	1%	0%	79%	20%	56%	2%	42%	75%	17%	8%		
APP/DEPART	949	/	862	938	/	827	163	/	11	12	/	362		0	
BEGIN PEAK HR	7:30 AM														
VOLUMES	110	468	5	1	451	108	42	0	41	6	0	1		1,233	
APPROACH %	19%	80%	1%	0%	81%	19%	51%	0%	49%	86%	0%	14%			
PEAK HR FACTOR	0.740			0.824			0.865			0.438				0.842	
APP/DEPART	583	/	511	560	/	500	83	/	6	7	/	216		0	
PM	4:00 PM	16	110	1	0	84	22	39	2	21	0	0	0	295	
	4:15 PM	17	99	1	0	79	23	37	1	17	3	0	0	277	
	4:30 PM	17	103	1	0	100	19	41	0	29	1	0	0	311	
	4:45 PM	16	121	2	2	80	32	18	1	13	1	0	1	287	
	5:00 PM	16	95	0	0	96	23	53	2	38	1	0	0	324	
	5:15 PM	15	98	2	0	113	19	29	0	31	0	0	0	307	
	5:30 PM	9	92	3	0	71	16	24	1	21	2	1	1	241	
	5:45 PM	17	93	3	1	88	19	22	0	23	0	0	1	267	
	VOLUMES	123	811	13	3	711	173	263	7	193	8	1	3		2,309
	APPROACH %	13%	86%	1%	0%	80%	20%	57%	2%	42%	67%	8%	25%		
APP/DEPART	947	/	1,074	887	/	913	463	/	23	12	/	299		0	
BEGIN PEAK HR	4:30 PM														
VOLUMES	64	417	5	2	389	93	141	3	111	3	0	1		1,229	
APPROACH %	13%	86%	1%	0%	80%	19%	55%	1%	44%	75%	0%	25%			
PEAK HR FACTOR	0.874			0.917			0.685			0.500				0.948	
APP/DEPART	486	/	556	484	/	504	255	/	10	4	/	159		0	

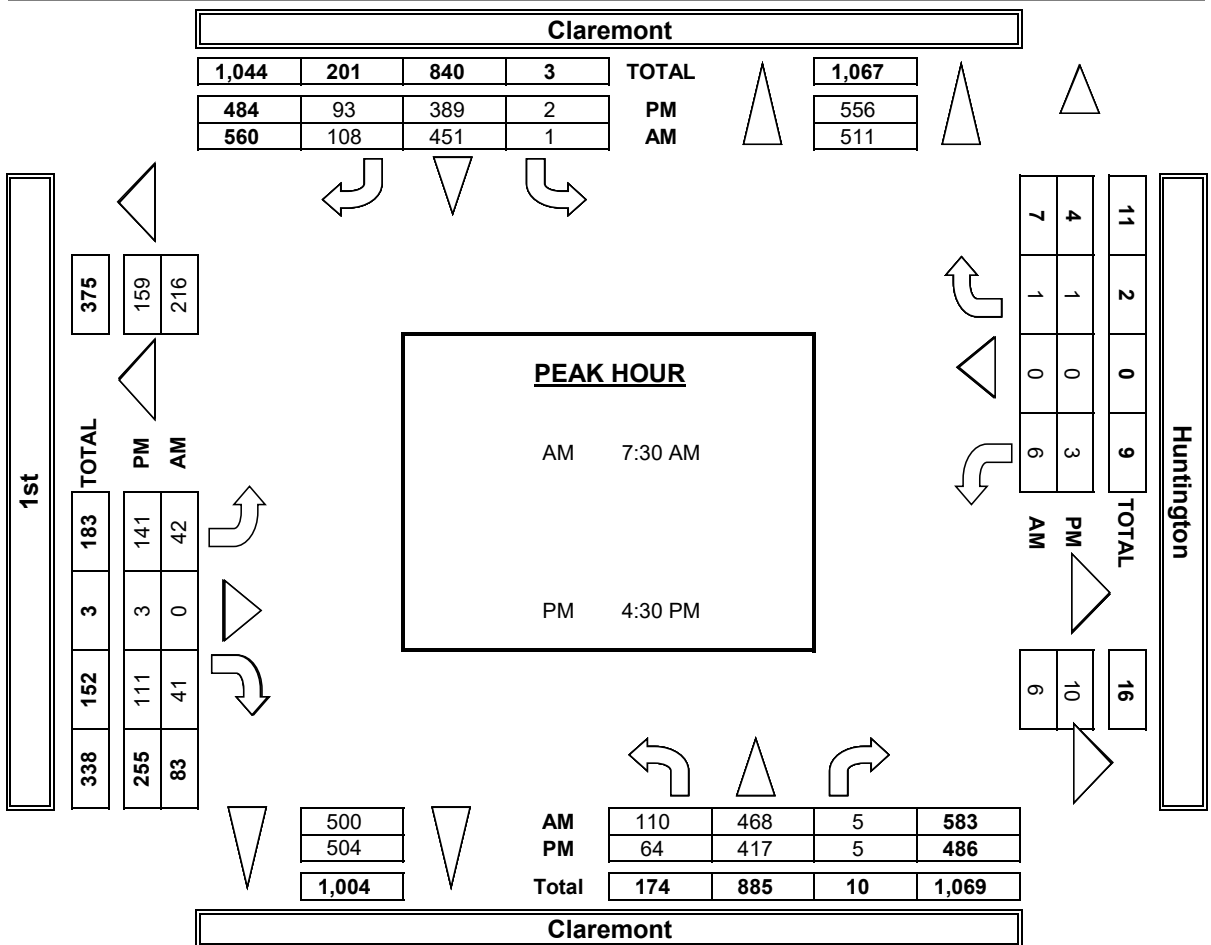
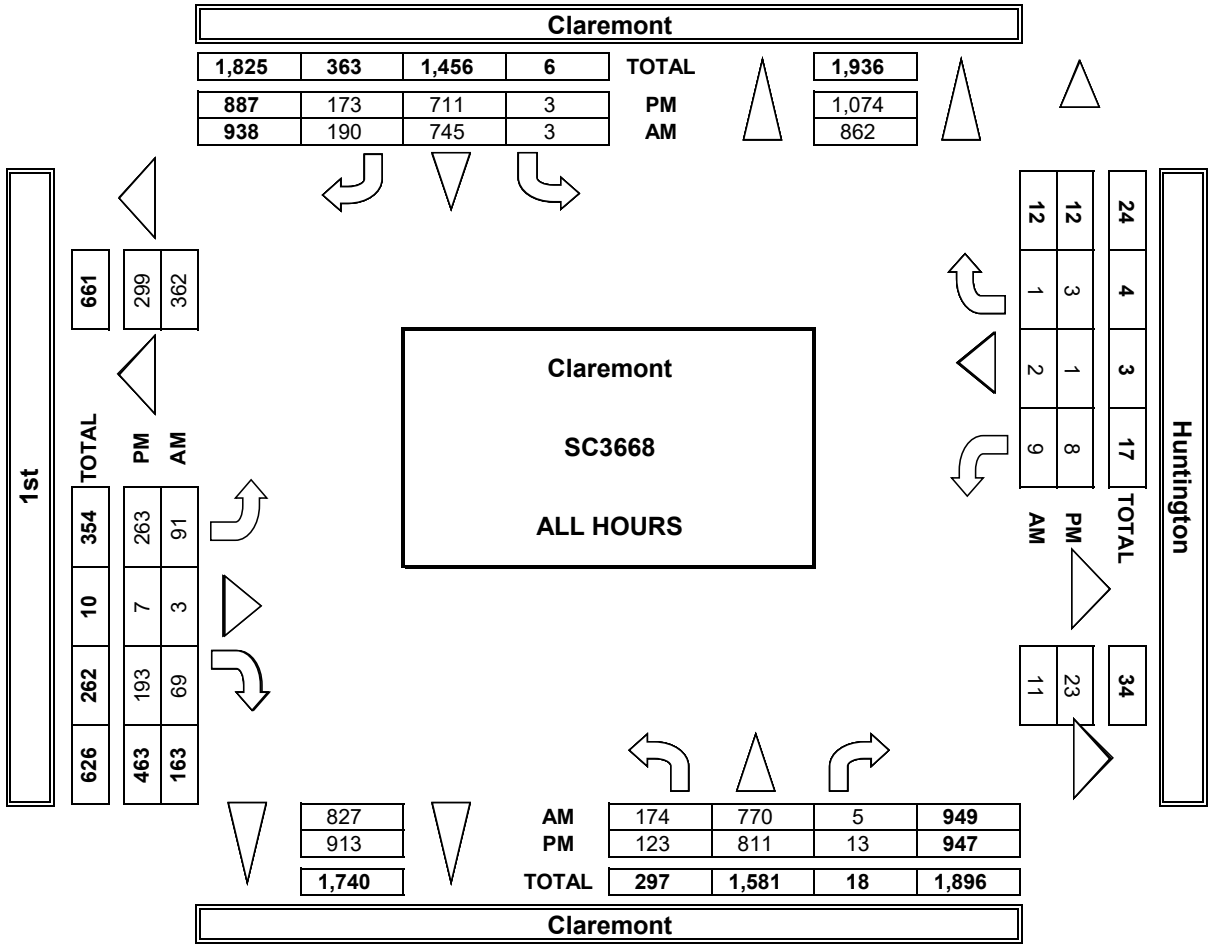


AM	7:00 AM	3	4	0	0	7
	7:15 AM	4	4	2	0	10
	7:30 AM	1	0	0	0	1
	7:45 AM	2	1	1	0	4
	8:00 AM	8	0	0	0	8
	8:15 AM	1	4	0	3	8
	8:30 AM	6	2	0	2	10
	8:45 AM	5	2	4	0	11
TOTAL	30	17	7	5	59	
PM	4:00 PM	1	1	1	1	4
	4:15 PM	3	1	1	3	8
	4:30 PM	1	1	1	3	6
	4:45 PM	4	1	1	3	9
	5:00 PM	5	2	1	1	9
	5:15 PM	0	3	2	1	6
	5:30 PM	4	1	0	2	7
	5:45 PM	3	2	0	0	5
TOTAL	21	12	7	14	54	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
3	4	0	0	7
4	4	2	0	10
1	0	0	0	1
2	1	1	0	4
8	0	0	0	8
1	4	0	3	8
6	2	0	2	10
5	2	4	0	11
30	17	7	5	59
1	1	1	1	4
3	1	1	3	8
1	1	1	3	6
4	1	1	3	9
5	2	1	1	9
0	3	2	1	6
4	1	0	2	7
3	2	0	0	5
21	12	7	14	54

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	3	0	0	5
1	3	1	0	5
1	0	0	0	1
1	0	0	0	1
4	0	0	0	4
0	3	0	3	6
2	2	0	2	6
1	2	2	0	5
12	13	3	5	33
1	0	1	1	3
1	0	0	1	2
0	0	0	3	3
1	0	0	2	3
1	0	0	0	1
0	1	0	0	1
1	0	0	2	3
1	2	0	0	3
6	3	1	9	19

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Sat, Oct 1, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

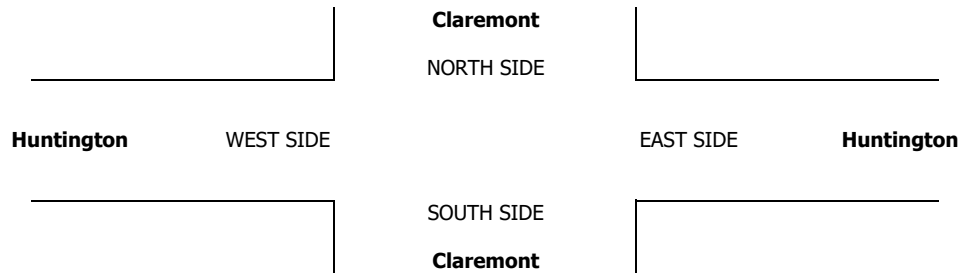
Claremont
Claremont
Huntington

PROJECT #: SC3668
LOCATION #: 4
CONTROL: SIGNAL

NOTES:	AM PM MD OTHER OTHER	◀ W	▲ N S ▼	E ▶
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LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Claremont			Claremont			1st			Huntington			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	1	1	1	1	0.5	0.5	1	

MD	11:00 AM	14	66	0	0	59	30	28	0	20	0	1	0	218
	11:15 AM	13	71	0	0	75	19	25	1	20	0	0	1	225
	11:30 AM	9	90	1	2	73	23	18	1	17	1	0	3	238
	11:45 AM	16	84	1	0	65	21	14	1	13	2	1	0	218
	12:00 PM	18	79	0	0	73	21	23	0	20	0	0	2	236
	12:15 PM	12	89	0	0	79	24	27	0	20	0	0	0	251
	12:30 PM	16	67	0	0	60	24	12	1	20	0	0	1	201
	12:45 PM	12	74	0	1	66	26	20	1	14	0	0	1	215
	1:00 PM	8	86	0	1	74	21	29	0	18	0	0	1	238
	1:15 PM	18	65	1	2	74	24	39	0	25	1	0	1	250
VOLUMES	136	771	3	6	698	233	235	5	187	4	2	10	2,290	
APPROACH %	15%	85%	0%	1%	74%	25%	55%	1%	44%	25%	13%	63%		
APP/DEPART	910	/	1,017	937	/	890	427	/	13	16	/	370	0	
BEGIN PEAK HR	11:30 AM													
VOLUMES	55	342	2	2	290	89	82	2	70	3	1	5	943	
APPROACH %	14%	86%	1%	1%	76%	23%	53%	1%	45%	33%	11%	56%		
PEAK HR FACTOR	0.988			0.925			0.819			0.563			0.939	
APP/DEPART	399	/	429	381	/	364	154	/	6	9	/	144	0	
PM	03:00 PM	19	71	1	1	70	16	24	0	16	0	0	0	218
	3:15 PM	13	75	3	0	73	16	23	0	17	2	1	0	223
	3:30 PM	13	74	0	1	72	20	22	2	16	0	0	1	221
	3:45 PM	14	88	0	1	72	23	14	1	12	1	0	4	230
	4:00 PM	15	67	0	2	100	13	15	0	26	0	0	0	238
	4:15 PM	10	64	0	1	85	20	29	0	20	1	0	0	230
	4:30 PM	9	66	1	0	62	13	14	0	14	0	0	1	180
	4:45 PM	11	71	3	0	57	15	16	0	14	0	0	1	188
	VOLUMES	104	576	8	6	591	136	157	3	135	4	1	7	1,728
	APPROACH %	15%	84%	1%	1%	81%	19%	53%	1%	46%	33%	8%	58%	
APP/DEPART	688	/	741	733	/	731	295	/	16	12	/	240	0	
BEGIN PEAK HR	3:30 PM													
VOLUMES	52	293	0	5	329	76	80	3	74	2	0	5	919	
APPROACH %	15%	85%	0%	1%	80%	19%	51%	2%	47%	29%	0%	71%		
PEAK HR FACTOR	0.846			0.891			0.801			0.350			0.965	
APP/DEPART	345	/	378	410	/	405	157	/	8	7	/	128	0	

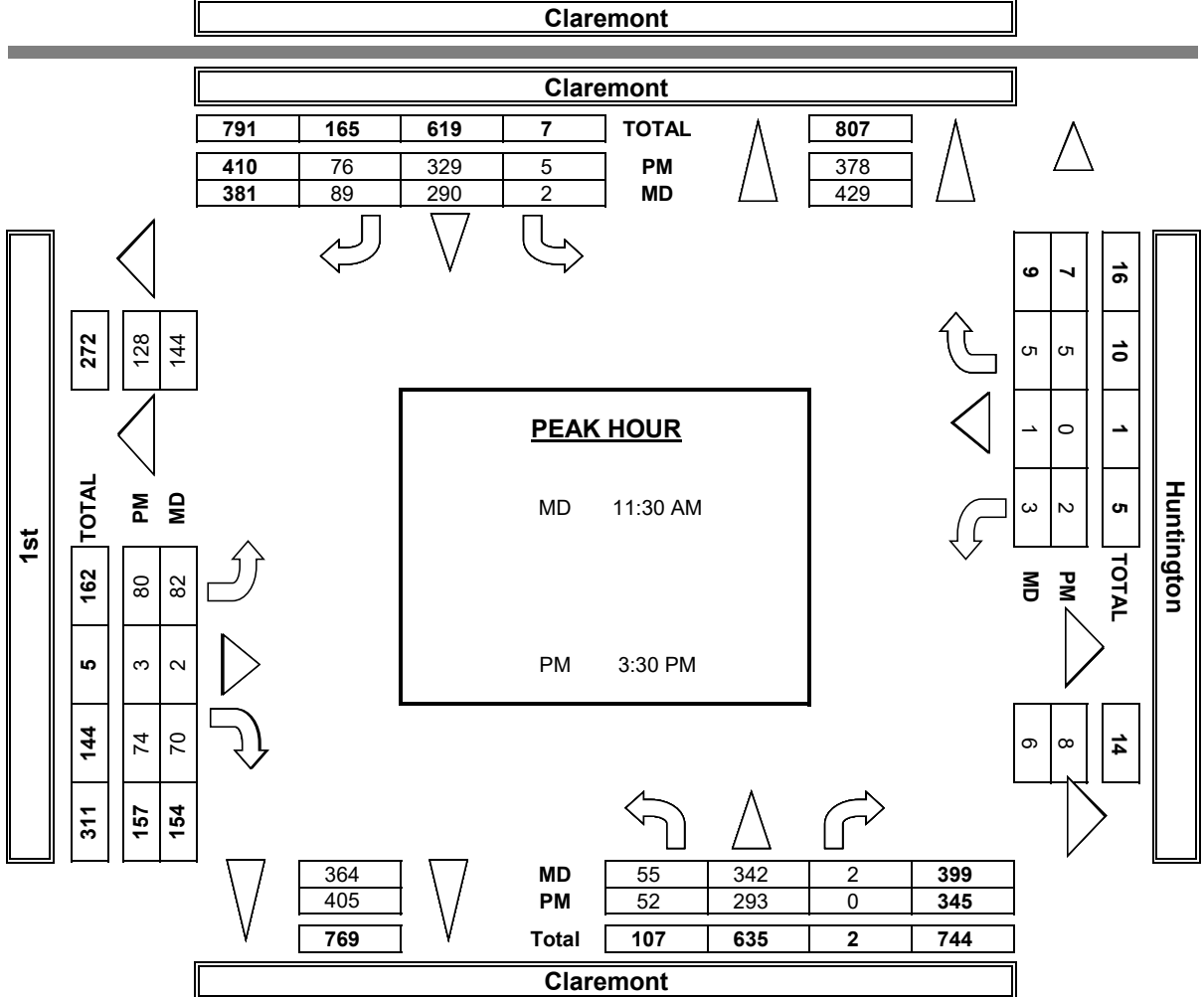
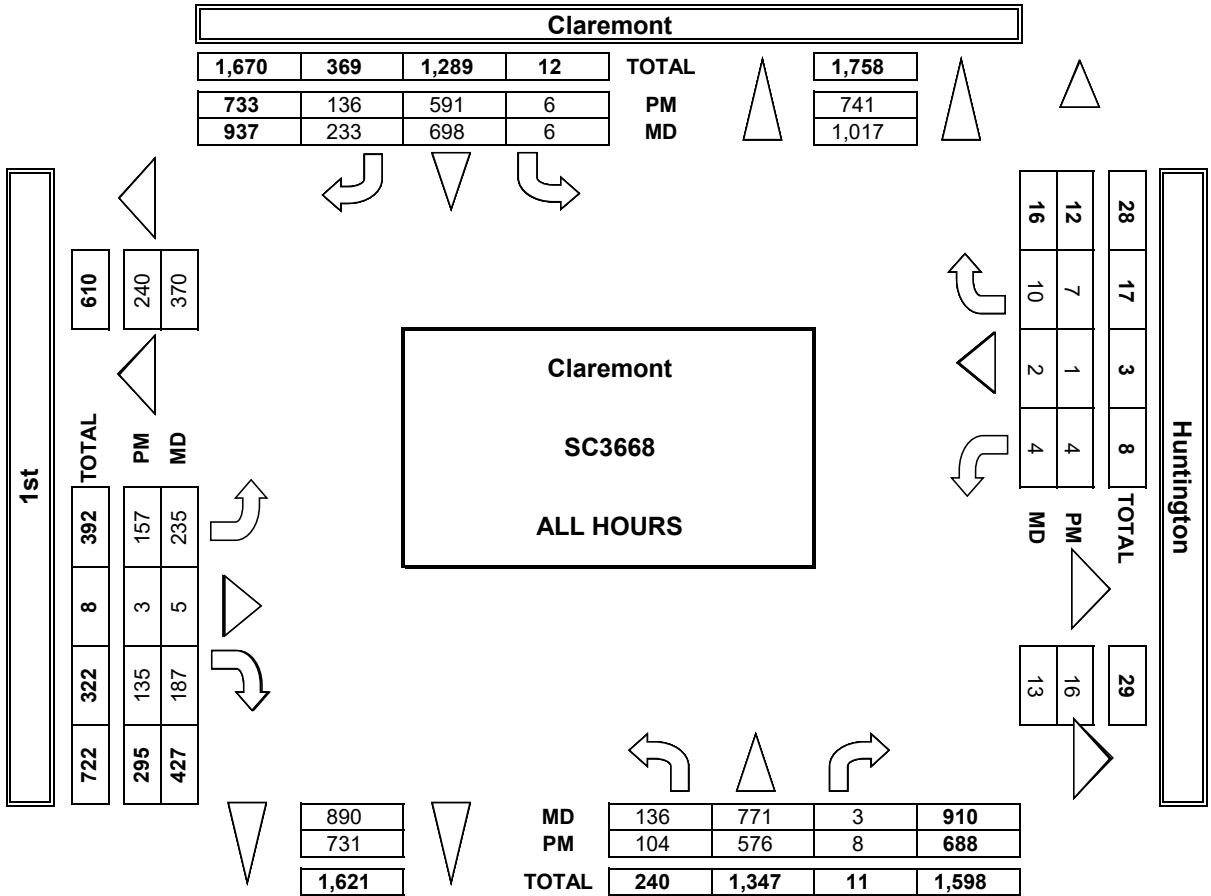


MD	11:00 AM	14	66	0	0	59	30	28	0	20	0	1	0	218
	11:15 AM	13	71	0	0	75	19	25	1	20	0	0	1	225
	11:30 AM	9	90	1	2	73	23	18	1	17	1	0	3	238
	11:45 AM	16	84	1	0	65	21	14	1	13	2	1	0	218
	12:00 PM	18	79	0	0	73	21	23	0	20	0	0	2	236
	12:15 PM	12	89	0	0	79	24	27	0	20	0	0	0	251
	12:30 PM	16	67	0	0	60	24	12	1	20	0	0	1	201
	12:45 PM	12	74	0	1	66	26	20	1	14	0	0	1	215
	1:00 PM	8	86	0	1	74	21	29	0	18	0	0	1	238
	1:15 PM	18	65	1	2	74	24	39	0	25	1	0	1	250
PM	03:00 PM	19	71	1	1	70	16	24	0	16	0	0	0	218
	3:15 PM	13	75	3	0	73	16	23	0	17	2	1	0	223
	3:30 PM	13	74	0	1	72	20	22	2	16	0	0	1	221
	3:45 PM	14	88	0	1	72	23	14	1	12	1	0	4	230
	4:00 PM	15	67	0	2	100	13	15	0	26	0	0	0	238
	4:15 PM	10	64	0	1	85	20	29	0	20	1	0	0	230
	4:30 PM	9	66	1	0	62	13	14	0	14	0	0	1	180
	4:45 PM	11	71	3	0	57	15	16	0	14	0	0	1	188
	VOLUMES	104	576	8	6	591	136	157	3	135	4	1	7	1,728
	APPROACH %	15%	84%	1%	1%	81%	19%	53%	1%	46%	33%	8%	58%	
APP/DEPART	688	/	741	733	/	731	295	/	16	12	/	240	0	
BEGIN PEAK HR	3:30 PM													
VOLUMES	52	293	0	5	329	76	80	3	74	2	0	5	919	
APPROACH %	15%	85%	0%	1%	80%	19%	51%	2%	47%	29%	0%	71%		
PEAK HR FACTOR	0.846			0.891			0.801			0.350			0.965	
APP/DEPART	345	/	378	410	/	405	157	/	8	7	/	128	0	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
10	2	0	0	12
10	6	0	1	17
10	5	1	0	16
3	4	0	0	7
0	6	0	0	6
2	3	0	2	7
4	1	0	1	6
6	1	0	1	8
0	3	0	0	3
0	4	0	0	4
TOTAL	45	35	1	86
6	5	1	2	14
1	9	2	0	12
3	0	0	1	4
3	3	1	1	8
1	2	0	1	4
3	1	1	1	6
5	1	2	2	10
4	0	0	1	5
TOTAL	26	21	7	63

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	1	0	0	2
0	1	0	0	1
0	0	1	0	1
0	0	0	0	0
0	3	0	0	3
0	0	0	0	0
0	0	0	1	1
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
1	5	1	2	9
2	0	0	0	2
1	0	0	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	1	1
1	0	1	1	3
2	0	0	1	3
TOTAL	6	0	2	11

AimTD LLC
TURNING MOVEMENT COUNTS



**Arrow Hwy & Indian Hill Blvd
Claremont california
Thursday, January 25, 2024**

Time	Southbound Indian Hill Blvd						Westbound Arrow Hwy						Northbound Indian Hill Blvd						Eastbound Arrow Hwy						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:00 AM	0	3	68	10	1	81	0	31	136	10	2	177	1	23	64	29	0	117	0	4	54	28	0	86	461
7:15 AM	0	6	78	2	0	86	1	40	139	7	0	187	1	23	78	26	0	128	2	9	65	24	1	100	501
7:30 AM	0	17	104	13	0	134	0	34	198	23	1	255	0	51	107	31	0	189	0	9	69	33	4	111	689
7:45 AM	0	14	112	6	0	132	0	34	182	22	1	238	1	38	172	61	1	272	0	23	114	35	1	172	814
Hourly Total	0	40	362	31	1	433	1	139	655	62	4	857	3	135	421	147	1	706	2	45	302	120	6	469	2465
8:00 AM	0	16	125	13	0	154	0	42	186	28	0	256	0	25	168	33	0	226	1	27	107	35	1	170	806
8:15 AM	0	22	123	9	0	154	0	47	121	15	1	183	0	24	111	30	1	165	3	17	79	34	1	133	635
8:30 AM	0	28	146	9	0	183	0	34	114	23	1	171	2	35	87	32	1	156	0	11	76	49	2	136	646
8:45 AM	0	10	99	7	0	116	0	22	128	12	3	162	0	36	121	50	4	207	0	12	106	32	5	150	635
Hourly Total	0	76	493	38	0	607	0	145	549	78	5	772	2	120	487	145	6	754	4	67	368	150	9	589	2722
4:00 PM	0	37	119	16	0	172	0	42	132	16	6	190	2	27	115	36	5	180	2	14	182	32	7	230	772
4:15 PM	0	22	105	13	0	140	0	40	92	17	3	149	2	30	120	35	1	187	2	25	196	41	3	264	740
4:30 PM	0	30	130	12	3	172	0	45	98	13	4	156	0	36	109	43	2	188	0	31	212	48	4	291	807
4:45 PM	0	21	121	12	0	154	0	43	121	20	3	184	1	34	107	37	2	179	0	25	224	35	3	284	801
Hourly Total	0	110	475	53	3	638	0	170	443	66	16	679	5	127	451	151	10	734	4	95	814	156	17	1069	3120
5:00 PM	0	38	156	23	0	217	0	50	131	10	4	191	3	29	138	40	1	210	1	19	192	34	3	246	864
5:15 PM	0	36	120	9	0	165	0	44	125	13	0	182	1	32	115	42	5	190	0	22	217	35	6	274	811
5:30 PM	0	38	113	11	0	162	0	47	115	9	2	171	3	31	108	41	3	183	0	20	191	31	2	242	758
5:45 PM	0	22	92	13	0	127	0	42	114	10	4	166	1	34	122	40	1	197	0	16	175	36	1	227	717
Hourly Total	0	134	481	56	0	671	0	183	485	42	10	710	8	126	483	163	10	780	1	77	775	136	12	989	3150
4 Hours TOTAL	0	360	1811	178	4	2349	1	637	2132	248	35	3018	18	508	1842	606	27	2974	11	284	2259	562	44	3116	11457
Cars	0	345	1791	170	3	2306	1	616	2102	232	31	2951	18	489	1822	579	24	2908	11	268	2233	546	40	3058	11223
Heavy Vehicles	0	15	20	8	1	43	0	21	30	16	4	67	0	19	20	27	3	66	0	16	26	16	4	58	234
Heavy Vehicle %	0.00%	4.17%	1.10%	4.49%	25.00%	1.83%	0.00%	3.30%	1.41%	6.45%	11.43%	2.22%	0.00%	3.74%	1.09%	4.46%	11.11%	2.22%	0.00%	5.63%	1.15%	2.85%	9.09%	1.86%	2.04%

**Arrow Hwy & Indian Hill Blvd
Claremont california
Thursday, January 25, 2024
AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:30 AM	0	17	104	13	0	134	0	34	198	23	1	255	0	51	107	31	0	189	0	9	69	33	4	111	689
7:45 AM	0	14	112	6	0	132	0	34	182	22	1	238	1	38	172	61	1	272	0	23	114	35	1	172	814
8:00 AM	0	16	125	13	0	154	0	42	186	28	0	256	0	25	168	33	0	226	1	27	107	35	1	170	806
8:15 AM	0	22	123	9	0	154	0	47	121	15	1	183	0	24	111	30	1	165	3	17	79	34	1	133	635
Peak Hour Total	0	69	464	41	0	574	0	157	687	88	3	932	1	138	558	155	2	852	4	76	369	137	7	586	2944
PHF	0.000	0.784	0.928	0.788	0.000	0.932	0.000	0.835	0.867	0.786	0.750	0.910	0.250	0.676	0.811	0.635	0.500	0.783	0.333	0.704	0.809	0.979	0.438	0.852	0.904

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:30 PM	0	30	130	12	3	172	0	45	98	13	4	156	0	36	109	43	2	188	0	31	212	48	4	291	807
4:45 PM	0	21	121	12	0	154	0	43	121	20	3	184	1	34	107	37	2	179	0	25	224	35	3	284	804
5:00 PM	0	38	156	23	0	217	0	50	131	10	4	191	3	29	138	40	1	210	1	19	192	34	3	246	864
5:15 PM	0	36	120	9	0	165	0	44	125	13	0	182	1	32	115	42	5	190	0	22	217	35	6	274	811
Peak Hour Total	0	125	527	56	3	708	0	182	475	56	11	713	5	131	469	162	10	767	1	97	845	152	16	1095	3283
PHF	0.000	0.822	0.845	0.609	0.250	0.816	0.000	0.910	0.906	0.700	0.688	0.933	0.417	0.910	0.850	0.942	0.500	0.913	0.250	0.782	0.943	0.792	0.667	0.941	0.950

Total Vehicles On Leg	4723
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
2349			2374		
Southbound					
Cars	170	1791	345	0	3
Heavy	8	20	15	0	1
Total	178	1811	360	0	4



Total Vehicles on Leg 5945	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	3116		40	4	44
			11	0	11
	Vehicles Exiting Intersection		268	16	284
	2829		2233	26	2259
			546	16	562



4 Hour Volumes



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 6244
232	16	248		3018	
2102	30	2132			
616	21	637		Vehicles Exiting Intersection	
1	0	1		3226	
31	4	35			



Cars	24	18	489	1822	579
Heavy	3	0	19	20	27
Total	27	18	508	1842	606
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
2974			3028		
Total Vehicles On Leg			6002		

**Arrow Hwy & Indian Hill Blvd
Claremont california
Saturday, January 27, 2024**

Time	Southbound Indian Hill Blvd						Westbound Arrow Hwy						Northbound Indian Hill Blvd						Eastbound Arrow Hwy						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	29	113	11	2	153	0	35	71	15	6	121	1	13	120	75	4	209	4	18	104	36	2	162	645
11:15 AM	0	33	90	13	2	136	0	33	84	13	2	130	5	25	122	85	2	237	1	26	141	43	2	211	714
11:30 AM	0	37	115	12	0	164	1	28	99	16	0	144	0	24	141	89	1	254	2	24	141	37	3	204	766
11:45 AM	0	30	117	24	1	171	0	38	79	15	5	132	3	29	138	83	1	253	1	21	142	34	0	198	754
Hourly Total	0	129	435	60	5	624	1	134	333	59	13	527	9	91	521	332	8	953	8	89	528	150	7	775	2879
12:00 PM	0	21	104	14	0	139	0	39	89	26	0	154	3	30	122	107	0	262	1	26	154	35	0	216	771
12:15 PM	0	22	111	13	2	146	1	39	74	17	3	131	0	25	126	76	0	227	1	20	170	58	2	249	753
12:30 PM	0	39	98	18	1	155	0	34	85	19	1	138	1	34	124	73	0	232	5	13	226	37	1	281	806
12:45 PM	0	24	113	17	0	154	0	22	98	23	2	143	0	27	128	89	1	244	3	40	217	31	3	291	832
Hourly Total	0	106	426	62	3	594	1	134	346	85	6	566	4	116	500	345	1	965	10	99	767	161	6	1037	3162
1:00 PM	0	25	110	15	0	150	0	36	107	17	0	160	1	38	116	95	0	250	1	18	198	28	3	245	805
1:15 PM	0	21	91	21	1	133	0	34	110	27	1	171	2	34	111	101	1	248	2	20	209	28	1	259	811
1:30 PM	0	29	107	15	0	151	0	32	84	20	4	136	0	31	103	85	3	219	3	26	201	37	3	267	773
1:45 PM	0	29	101	14	0	144	2	34	101	26	3	163	2	26	121	98	1	247	2	29	200	41	4	272	826
Hourly Total	0	104	409	65	1	578	2	136	402	90	8	630	5	129	451	379	5	964	8	93	808	134	11	1043	3215
2:00 PM	0	19	115	13	4	147	0	33	103	18	3	154	0	27	113	102	2	242	1	23	196	44	3	264	807
2:15 PM	0	43	92	16	1	151	2	24	110	18	2	154	3	37	82	101	0	223	0	23	234	42	1	299	827
2:30 PM	0	27	85	20	2	132	0	28	98	18	2	144	2	28	109	112	1	251	0	19	215	34	1	268	795
2:45 PM	0	36	92	11	0	139	0	35	109	18	1	162	3	30	124	91	1	248	0	24	247	25	0	296	845
Hourly Total	0	125	384	60	7	569	2	120	420	72	8	614	8	122	428	406	4	964	1	89	892	145	5	1127	3274
4 Hours TOTAL	0	464	1654	247	16	2365	6	524	1501	306	35	2337	26	458	1900	1462	18	3846	27	370	2995	590	29	3982	12530
Cars	0	455	1642	240	14	2337	6	518	1492	293	29	2309	26	456	1894	1440	18	3816	27	364	2974	569	29	3934	12396
Heavy Vehicles	0	9	12	7	2	28	0	6	9	13	6	28	0	2	6	22	0	30	0	6	21	21	0	48	134
Heavy Vehicle %	0.00%	1.94%	0.73%	2.83%	12.50%	1.18%	0.00%	1.15%	0.60%	4.25%	17.14%	1.20%	0.00%	0.44%	0.32%	1.50%	0.00%	0.78%	0.00%	1.62%	0.70%	3.56%	0.00%	1.21%	1.07%

**Arrow Hwy & Indian Hill Blvd
Claremont california
Saturday, January 27, 2024**

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	29	113	11	2	153	0	35	71	15	6	121	1	13	120	75	4	209	4	18	104	36	2	162	645
11:15 AM	0	33	90	13	2	136	0	33	84	13	2	130	5	25	122	85	2	237	1	26	141	43	2	211	714
11:30 AM	0	37	115	12	0	164	1	28	99	16	0	144	0	24	141	89	1	254	2	24	141	37	3	204	766
11:45 AM	0	30	117	24	1	171	0	38	79	15	5	132	3	29	138	83	1	253	1	21	142	34	0	198	754
Peak Hour Total	0	129	435	60	5	624	1	134	333	59	13	527	9	91	521	332	8	953	8	89	528	150	7	775	2879
PHF	0.000	0.872	0.929	0.625	0.625	0.912	0.250	0.882	0.841	0.922	0.542	0.915	0.450	0.784	0.924	0.933	0.500	0.938	0.500	0.856	0.930	0.872	0.583	0.918	0.940

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
2:00 PM	0	19	115	13	4	147	0	33	103	18	3	154	0	27	113	102	2	242	1	23	196	44	3	264	807
2:15 PM	0	43	92	16	1	151	2	24	110	18	2	154	3	37	82	101	0	223	0	23	234	42	1	299	827
2:30 PM	0	27	85	20	2	132	0	28	98	18	2	144	2	28	109	112	1	251	0	19	215	34	1	268	795
2:45 PM	0	36	92	11	0	139	0	35	109	18	1	162	3	30	124	91	1	248	0	24	247	25	0	296	845
Peak Hour Total	0	125	384	60	7	569	2	120	420	72	8	614	8	122	428	406	4	964	1	89	892	145	5	1127	3274
PHF	0.000	0.727	0.835	0.750	0.438	0.942	0.250	0.857	0.955	1.000	0.667	0.948	0.667	0.824	0.863	0.906	0.500	0.960	0.250	0.927	0.903	0.824	0.417	0.942	0.969

Total Vehicles On Leg	4941
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
2365			2576		
Southbound					
Cars	240	1642	455	0	14
Heavy	7	12	9	0	2
Total	247	1654	464	0	16



Total Vehicles on Leg 6215	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	3982		29	0	29
			27	0	27
	Vehicles Exiting Intersection		364	6	370
	2233		2974	21	2995
			569	21	590



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 7264
293	13	306		2337	
1492	9	1501			
518	6	524		Vehicles Exiting Intersection	
6	0	6		4927	
29	6	35			



4 Hour Volumes

Cars	18	26	456	1894	1440
Heavy	0	0	2	6	22
Total	18	26	458	1900	1462
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
3846			2794		
Total Vehicles On Leg			6640		



**Arrow Hwy & College Ave
Claremont Clifornia
Thursday, January 25, 2024**

Time	Southbound College Ave						Westbound Arrow Hwy						Northbound College Ave						Eastbound Arrow Hwy						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:00 AM	0	7	2	7	0	16	0	4	163	12	0	179	0	3	4	2	0	9	0	8	76	0	3	84	288
7:15 AM	0	7	8	4	0	19	0	6	184	6	0	196	0	3	14	0	0	17	0	9	86	4	2	99	331
7:30 AM	0	4	6	7	0	17	0	5	237	14	0	256	0	5	23	6	0	34	0	5	116	2	3	123	430
7:45 AM	0	9	25	13	1	47	0	12	235	24	1	271	0	16	42	2	1	60	0	22	159	4	15	185	563
Hourly Total	0	27	41	31	1	99	0	27	819	56	1	902	0	27	83	10	1	120	0	44	437	10	23	491	1612
8:00 AM	0	31	33	28	0	92	0	12	210	23	2	245	0	7	37	4	0	48	0	17	106	15	18	138	523
8:15 AM	0	21	29	17	0	67	0	9	154	10	1	173	0	9	22	3	1	34	0	10	110	12	1	132	406
8:30 AM	0	11	18	7	0	36	0	10	144	12	1	166	0	11	11	7	0	29	0	19	89	7	2	115	346
8:45 AM	0	14	8	10	0	32	0	8	146	17	0	171	0	11	14	6	3	31	0	25	149	8	2	182	416
Hourly Total	0	77	88	62	0	227	0	39	654	62	4	755	0	38	84	20	4	142	0	71	454	42	23	567	1691
4:00 PM	0	20	20	25	0	65	0	4	146	5	2	155	0	6	11	12	2	29	0	22	205	16	2	243	492
4:15 PM	0	24	18	13	0	55	0	8	129	10	1	147	0	3	20	9	0	32	0	19	221	6	5	246	480
4:30 PM	0	25	31	28	1	84	0	5	129	14	4	148	0	4	9	13	0	26	0	22	233	7	4	262	520
4:45 PM	0	21	22	22	0	65	0	8	150	10	1	168	0	7	15	9	0	31	0	23	238	7	3	268	532
Hourly Total	0	90	91	88	1	269	0	25	554	39	8	618	0	20	55	43	2	118	0	86	897	36	14	1019	2024
5:00 PM	0	35	40	30	0	105	0	4	155	8	3	167	0	6	14	13	2	33	0	9	247	8	2	264	569
5:15 PM	0	32	28	31	0	91	0	6	145	13	2	164	0	14	12	12	2	38	0	12	243	7	5	262	555
5:30 PM	0	18	18	20	1	56	0	6	146	8	0	160	0	11	12	18	0	41	0	10	244	5	2	259	516
5:45 PM	0	17	20	13	1	50	0	8	137	7	0	152	0	4	11	9	0	24	0	15	200	12	1	227	453
Hourly Total	0	102	106	94	2	302	0	24	583	36	5	643	0	35	49	52	4	136	0	46	934	32	10	1012	2093
4 Hours TOTAL	0	296	326	275	4	897	0	115	2610	193	18	2918	0	120	271	125	11	516	0	247	2722	120	70	3089	7420
Cars	0	294	325	275	3	894	0	113	2547	193	16	2853	0	120	268	124	11	512	0	244	2659	119	69	3022	7281
Heavy Vehicles	0	2	1	0	1	3	0	2	63	0	2	65	0	0	3	1	0	4	0	3	63	1	1	67	139
Heavy Vehicle %	0.00%	0.68%	0.31%	0.00%	25.00%	0.33%	0.00%	1.74%	2.41%	0.00%	11.11%	2.23%	0.00%	0.00%	1.11%	0.80%	0.00%	0.78%	0.00%	1.21%	2.31%	0.83%	1.43%	2.17%	1.87%

**Arrow Hwy & College Ave
Claremont Clifornia
Thursday, January 25, 2024
AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:30 AM	0	4	6	7	0	17	0	5	237	14	0	256	0	5	23	6	0	34	0	5	116	2	3	123	430
7:45 AM	0	9	25	13	1	47	0	12	235	24	1	271	0	16	42	2	1	60	0	22	159	4	15	185	563
8:00 AM	0	31	33	28	0	92	0	12	210	23	2	245	0	7	37	4	0	48	0	17	106	15	18	138	523
8:15 AM	0	21	29	17	0	67	0	9	154	10	1	173	0	9	22	3	1	34	0	10	110	12	1	132	406
Peak Hour Total	0	65	93	65	1	223	0	38	836	71	4	945	0	37	124	15	2	176	0	54	491	33	37	578	1922
PHF	0.000	0.524	0.705	0.580	0.250	0.606	0.000	0.792	0.882	0.740	0.500	0.872	0.000	0.578	0.738	0.625	0.500	0.733	0.000	0.614	0.772	0.550	0.514	0.781	0.853

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:30 PM	0	25	31	28	1	84	0	5	129	14	4	148	0	4	9	13	0	26	0	22	233	7	4	262	520
4:45 PM	0	21	22	22	0	65	0	8	150	10	1	168	0	7	15	9	0	31	0	23	238	7	3	268	532
5:00 PM	0	35	40	30	0	105	0	4	155	8	3	167	0	6	14	13	2	33	0	9	247	8	2	264	569
5:15 PM	0	32	28	31	0	91	0	6	145	13	2	164	0	14	12	12	2	38	0	12	243	7	5	262	555
Peak Hour Total	0	113	121	111	1	345	0	23	579	45	10	647	0	31	50	47	4	128	0	66	961	29	14	1056	2176
PHF	0.000	0.807	0.756	0.895	0.250	0.821	0.000	0.719	0.934	0.804	0.625	0.963	0.000	0.554	0.833	0.904	0.500	0.842	0.000	0.717	0.973	0.906	0.700	0.985	0.956

Total Vehicles On Leg	1608
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
897			711		
Southbound					
Cars	275	325	294	0	3
Heavy	0	1	2	0	1
Total	275	326	296	0	4



Total Vehicles on Leg 6094	Vehicles Entering Intersection 3089	Eastbound	Cars	Heavy	Total
			69	1	70
			0	0	0
	Vehicles Exiting Intersection 3005		244	3	247
			2659	63	2722
			119	1	120



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 2918	Total Vehicles on Leg 6061
193	0	193			
2547	63	2610			
113	2	115			
0	0	0			
16	2	18			



4 Hour Volumes

Cars	11	0	120	268	124
Heavy	0	0	0	3	1
Total	11	0	120	271	125
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
516			561		
Total Vehicles On Leg			1077		



**Arrow Hwy & College Ave
Claremont Clifornia
Saturday, January 27, 2024**

Time	Southbound College Ave						Westbound Arrow Hwy						Northbound College Ave						Eastbound Arrow Hwy						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	25	16	17	0	58	0	6	99	17	0	122	0	6	10	5	1	21	0	13	192	9	3	214	
11:15 AM	0	14	16	22	0	52	0	3	107	16	0	126	0	5	10	5	0	20	0	18	231	3	7	252	
11:30 AM	0	16	15	23	0	54	0	3	103	20	1	126	0	5	11	10	0	26	0	24	206	6	3	236	
11:45 AM	0	21	10	17	0	48	0	1	125	22	5	148	0	5	20	5	2	30	0	16	227	8	6	251	
Hourly Total	0	76	57	79	0	212	0	13	434	75	6	522	0	21	51	25	3	97	0	71	856	26	19	953	1784
12:00 PM	0	12	14	19	1	45	0	1	117	16	0	134	0	6	15	4	0	25	0	27	255	8	1	290	
12:15 PM	0	20	13	13	0	46	0	5	116	19	2	140	0	7	16	2	0	25	0	14	254	11	5	279	
12:30 PM	0	21	11	22	0	54	0	6	120	14	2	140	0	9	16	12	0	37	0	19	292	14	4	325	
12:45 PM	0	25	13	17	0	55	0	6	114	20	4	140	0	6	18	11	1	35	0	18	288	9	4	315	
Hourly Total	0	78	51	71	1	200	0	18	467	69	8	554	0	28	65	29	1	122	0	78	1089	42	14	1209	2085
1:00 PM	0	22	19	17	0	58	0	3	135	14	0	152	0	5	5	11	0	21	0	17	274	7	2	298	
1:15 PM	0	29	26	26	0	81	0	1	145	13	0	159	0	6	8	7	0	21	0	30	284	7	4	321	
1:30 PM	0	21	14	18	0	53	0	8	110	13	0	131	0	5	9	9	0	23	0	25	286	11	1	322	
1:45 PM	0	22	14	19	0	55	0	7	134	18	1	159	0	2	16	5	0	23	0	8	296	6	1	310	
Hourly Total	0	94	73	80	0	247	0	19	524	58	1	601	0	18	38	32	0	88	0	80	1140	31	8	1251	2187
2:00 PM	0	26	16	20	1	62	0	8	127	9	2	144	0	2	11	9	0	22	0	16	280	6	4	302	
2:15 PM	0	21	19	10	0	50	0	5	132	12	2	149	0	3	5	8	0	16	0	13	345	9	2	367	
2:30 PM	0	24	24	22	2	70	1	7	117	15	1	140	0	9	16	8	1	33	0	10	329	8	4	347	
2:45 PM	0	13	16	17	0	46	0	4	124	15	3	143	0	6	18	10	2	34	0	18	336	5	4	359	
Hourly Total	0	84	75	69	3	228	1	24	500	51	8	576	0	20	50	35	3	105	0	57	1290	28	14	1375	2284
4 Hours TOTAL	0	332	256	299	4	887	1	74	1925	253	23	2253	0	87	204	121	7	412	0	286	4375	127	55	4788	8340
Cars	0	331	256	295	4	882	1	74	1900	251	23	2226	0	87	201	119	7	407	0	285	4326	126	52	4737	8252
Heavy Vehicles	0	1	0	4	0	5	0	0	25	2	0	27	0	0	3	2	0	5	0	1	49	1	3	51	88
Heavy Vehicle %	0.00%	0.30%	0.00%	1.34%	0.00%	0.56%	0.00%	0.00%	1.30%	0.79%	0.00%	1.20%	0.00%	0.00%	1.47%	1.65%	0.00%	1.21%	0.00%	0.35%	1.12%	0.79%	5.45%	1.07%	1.06%

**Arrow Hwy & College Ave
Claremont Clifornia
Saturday, January 27, 2024**

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	25	16	17	0	58	0	6	99	17	0	122	0	6	10	5	1	21	0	13	192	9	3	214	
11:15 AM	0	14	16	22	0	52	0	3	107	16	0	126	0	5	10	5	0	20	0	18	231	3	7	252	
11:30 AM	0	16	15	23	0	54	0	3	103	20	1	126	0	5	11	10	0	26	0	24	206	6	3	236	
11:45 AM	0	21	10	17	0	48	0	1	125	22	5	148	0	5	20	5	2	30	0	16	227	8	6	251	
Peak Hour Total	0	76	57	79	0	212	0	13	434	75	6	522	0	21	51	25	3	97	0	71	856	26	19	953	1784
PHF	0.000	0.760	0.891	0.859	0.000	0.914	0.000	0.542	0.868	0.852	0.300	0.882	0.000	0.875	0.638	0.625	0.375	0.808	0.000	0.740	0.926	0.722	0.679	0.945	0.935

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
2:00 PM	0	26	16	20	1	62	0	8	127	9	2	144	0	2	11	9	0	22	0	16	280	6	4	302	
2:15 PM	0	21	19	10	0	50	0	5	132	12	2	149	0	3	5	8	0	16	0	13	345	9	2	367	
2:30 PM	0	24	24	22	2	70	1	7	117	15	1	140	0	9	16	8	1	33	0	10	329	8	4	347	
2:45 PM	0	13	16	17	0	46	0	4	124	15	3	143	0	6	18	10	2	34	0	18	336	5	4	359	
Peak Hour Total	0	84	75	69	3	228	1	24	500	51	8	576	0	20	50	35	3	105	0	57	1290	28	14	1375	2284
PHF	0.000	0.808	0.781	0.784	0.375	0.814	0.250	0.750	0.947	0.850	0.667	0.966	0.000	0.556	0.694	0.875	0.375	0.772	0.000	0.792	0.935	0.778	0.875	0.937	0.968

Total Vehicles On Leg	1630
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
887			743		
Southbound					
Cars	295	256	331	0	4
Heavy	4	0	1	0	0
Total	299	256	332	0	4



Total Vehicles on Leg 7099	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	4788		52	3	55
			0	0	0
	Vehicles Exiting Intersection		285	1	286
	2311		4326	49	4375
			126	1	127



4 Hour Volumes



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 7082
251	2	253		2253	
1900	25	1925			
74	0	74		Vehicles Exiting Intersection	
1	0	1		4829	
23	0	23			

Cars	7	0	87	201	119
Heavy	0	0	0	3	2
Total	7	0	87	204	121
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
412			457		
Total Vehicles On Leg			869		



**Arrow Hwy & Claremont Blvd
Claremont California
Thursday, January 25, 2024**

Time	Southbound Claremont Blvd						Westbound Arrow Hwy						Northbound Mills Ave						Eastbound Arrow Hwy						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:00 AM	0	11	31	36	0	78	0	12	129	9	0	150	0	9	38	10	0	57	0	25	51	4	0	80	365
7:15 AM	0	11	46	44	0	101	0	14	140	15	0	169	0	14	36	12	0	62	0	20	68	7	1	95	427
7:30 AM	0	10	51	45	1	106	0	9	202	14	0	225	0	20	82	12	1	114	0	32	89	12	0	133	578
7:45 AM	1	4	58	55	0	118	0	9	155	22	0	186	0	27	111	8	0	146	0	54	105	5	1	164	614
Hourly Total	1	36	186	180	1	403	0	44	626	60	0	730	0	70	267	42	1	379	0	131	313	28	2	472	1984
8:00 AM	1	16	54	58	1	129	0	5	159	32	1	196	0	23	80	16	0	119	0	27	100	6	0	133	577
8:15 AM	0	20	55	48	0	123	0	10	108	16	0	134	0	21	73	11	0	105	0	26	78	11	0	115	477
8:30 AM	1	17	46	37	0	101	0	11	114	18	1	143	0	11	34	7	0	52	0	27	76	5	0	108	404
8:45 AM	0	10	29	30	0	69	0	9	110	19	0	138	0	14	31	9	0	54	0	36	97	17	0	150	411
Hourly Total	2	63	184	173	1	422	0	35	491	85	2	611	0	69	218	43	0	330	0	116	351	39	0	506	1869
4:00 PM	0	23	58	34	1	115	0	23	112	12	2	147	0	16	62	8	1	86	1	42	177	16	1	236	584
4:15 PM	0	14	48	31	0	93	0	13	95	10	2	118	0	14	65	15	5	94	0	35	201	7	4	243	548
4:30 PM	0	21	60	44	0	125	0	16	94	11	1	121	0	14	61	19	1	94	0	41	207	14	1	262	602
4:45 PM	0	19	54	37	1	110	0	13	119	16	4	148	0	13	74	11	2	98	0	30	216	16	1	262	618
Hourly Total	0	77	220	146	2	443	0	65	420	49	9	534	0	57	262	53	9	372	1	148	801	53	7	1003	2352
5:00 PM	0	26	78	52	3	156	0	10	98	19	4	127	0	16	54	12	0	82	0	36	244	12	1	292	657
5:15 PM	0	15	78	37	0	130	0	22	117	7	1	146	0	20	71	11	0	102	0	40	223	13	1	276	654
5:30 PM	0	24	81	44	0	149	0	18	90	9	0	117	0	24	81	22	0	127	0	48	212	10	1	270	663
5:45 PM	0	20	56	38	0	114	0	16	107	10	1	133	0	16	56	12	1	84	0	41	184	10	2	235	566
Hourly Total	0	85	293	171	3	549	0	66	412	45	6	523	0	76	262	57	1	395	0	165	863	45	5	1073	2540
4 Hours TOTAL	3	261	883	670	7	1817	0	210	1949	239	17	2398	0	272	1009	195	11	1476	1	560	2328	165	14	3054	8745
Cars	3	231	881	656	6	1771	0	209	1897	212	17	2318	0	272	1005	190	8	1467	1	550	2274	164	14	2989	8545
Heavy Vehicles	0	30	2	14	1	46	0	1	52	27	0	80	0	0	4	5	3	9	0	10	54	1	0	65	200
Heavy Vehicle %	0.00%	11.49%	0.23%	2.09%	14.29%	2.53%	0.00%	0.48%	2.67%	11.30%	0.00%	3.34%	0.00%	0.00%	0.40%	2.56%	27.27%	0.61%	0.00%	1.79%	2.32%	0.61%	0.00%	2.13%	2.29%

**Arrow Hwy & Claremont Blvd
Claremont California
Thursday, January 25, 2024
AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:30 AM	0	10	51	45	1	106	0	9	202	14	0	225	0	20	82	12	1	114	0	32	89	12	0	133	578
7:45 AM	1	4	58	55	0	118	0	9	155	22	0	186	0	27	111	8	0	146	0	54	105	5	1	164	614
8:00 AM	1	16	54	58	1	129	0	5	159	32	1	196	0	23	80	16	0	119	0	27	100	6	0	133	577
8:15 AM	0	20	55	48	0	123	0	10	108	16	0	134	0	21	73	11	0	105	0	26	78	11	0	115	477
Peak Hour Total	2	50	218	206	2	476	0	33	624	84	1	741	0	91	346	47	1	484	0	139	372	34	1	545	2246
PHF	0.500	0.625	0.940	0.888	0.500	0.922	0.000	0.825	0.772	0.656	0.250	0.823	0.000	0.843	0.779	0.734	0.250	0.829	0.000	0.644	0.886	0.708	0.250	0.831	0.914

PM Peak Hour

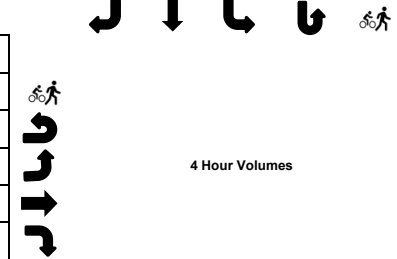
Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:45 PM	0	19	54	37	1	110	0	13	119	16	4	148	0	13	74	11	2	98	0	30	216	16	1	262	618
5:00 PM	0	26	78	52	3	156	0	10	98	19	4	127	0	16	54	12	0	82	0	36	244	12	1	292	657
5:15 PM	0	15	78	37	0	130	0	22	117	7	1	146	0	20	71	11	0	102	0	40	223	13	1	276	654
5:30 PM	0	24	81	44	0	149	0	18	90	9	0	117	0	24	81	22	0	127	0	48	212	10	1	270	663
Peak Hour Total	0	84	291	170	4	545	0	63	424	51	9	538	0	73	280	56	2	409	0	154	895	51	4	1100	2592
PHF	0.000	0.808	0.898	0.817	0.333	0.873	0.000	0.716	0.891	0.671	0.563	0.909	0.000	0.760	0.864	0.636	0.250	0.805	0.000	0.802	0.917	0.797	1.000	0.942	0.977

Total Vehicles On Leg	3628
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
1817			1811		
Southbound					
Cars	656	881	231	3	6
Heavy	14	2	30	0	1
Total	670	883	261	3	7

Total Vehicles on Leg 5946	Vehicles Entering Intersection 3054	Eastbound	Cars	Heavy	Total
			14	0	14
			1	0	1
	Vehicles Exiting Intersection 2892		550	10	560
			2274	54	2328
		164	1	165	

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 2398	Total Vehicles on Leg 5182
212	27	239			
1897	52	1949			
209	1	210			
0	0	0			
17	0	17	Vehicles Exiting Intersection 2784		



Cars	8	0	272	1005	190
Heavy	3	0	0	4	5
Total	11	0	272	1009	195
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
1476			1258		
Total Vehicles On Leg			2734		

**Arrow Hwy & Claremont Blvd
Claremont California
Saturday, January 27, 2024**

Time	Southbound Claremont Blvd						Westbound Arrow Hwy						Northbound Mills Ave						Eastbound Arrow Hwy						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	8	40	26	0	74	0	11	67	10	4	88	0	21	49	12	0	82	0	36	165	14	1	215	459
11:15 AM	0	8	28	18	0	54	0	10	87	9	0	106	0	15	51	8	2	74	0	34	196	8	1	238	472
11:30 AM	0	18	51	23	0	92	0	4	87	10	0	101	0	12	45	25	0	82	0	34	208	4	0	246	521
11:45 AM	0	13	48	28	0	89	0	7	83	14	2	104	0	24	49	16	0	89	0	30	193	11	0	234	516
Hourly Total	0	47	167	95	0	309	0	32	324	43	6	399	0	72	194	61	2	327	0	134	762	37	2	933	1968
12:00 PM	0	16	42	30	2	88	0	16	87	13	3	116	0	18	41	12	0	71	0	44	232	5	0	281	556
12:15 PM	0	19	51	36	0	106	0	5	85	17	0	107	0	15	59	15	0	89	0	36	222	8	2	266	568
12:30 PM	0	18	42	32	3	92	0	17	90	13	3	120	0	15	53	18	3	86	0	33	253	9	0	295	593
12:45 PM	0	17	48	30	0	95	0	15	108	18	1	141	0	28	61	18	0	107	0	48	273	17	0	338	681
Hourly Total	0	70	183	128	5	381	0	53	370	61	7	484	0	76	214	63	3	353	0	161	980	39	2	1180	2398
1:00 PM	0	22	46	21	1	89	0	14	94	17	1	125	0	26	36	11	0	73	0	30	257	11	1	298	585
1:15 PM	1	19	57	31	0	108	0	10	104	14	1	128	0	22	52	8	0	82	0	45	278	15	0	338	656
1:30 PM	0	12	46	30	0	88	0	9	95	17	1	121	0	19	43	18	0	80	1	34	255	9	1	299	588
1:45 PM	1	14	39	28	3	82	0	16	109	12	0	137	0	29	58	8	0	95	1	38	294	14	1	347	661
Hourly Total	2	67	188	110	4	367	0	49	402	60	3	511	0	96	189	45	0	330	2	147	1084	49	3	1282	2490
2:00 PM	1	17	47	28	2	93	0	12	99	17	0	128	0	23	60	13	0	96	0	47	256	4	2	307	624
2:15 PM	0	16	54	29	0	99	0	5	109	14	1	128	0	17	54	17	0	88	0	40	304	15	3	359	674
2:30 PM	0	17	44	26	0	87	0	5	91	18	0	114	0	17	42	16	1	75	0	39	314	13	0	366	642
2:45 PM	1	23	59	26	0	109	0	10	89	17	1	116	0	23	79	11	0	113	0	39	300	10	0	349	687
Hourly Total	2	73	204	109	2	388	0	32	388	66	2	486	0	80	235	57	1	372	0	165	1174	42	5	1381	2627
4 Hours TOTAL	4	257	742	442	11	1445	0	166	1484	230	18	1880	0	324	832	226	6	1382	2	607	4000	167	12	4776	9483
Cars	4	241	738	438	10	1421	0	166	1458	212	16	1836	0	321	829	225	1	1375	2	599	3957	167	9	4725	9357
Heavy Vehicles	0	16	4	4	1	24	0	0	26	18	2	44	0	3	3	1	5	7	0	8	43	0	3	51	126
Heavy Vehicle %	0.00%	6.23%	0.54%	0.90%	9.09%	1.66%	0.00%	0.00%	1.75%	7.83%	11.11%	2.34%	0.00%	0.93%	0.36%	0.44%	83.33%	0.51%	0.00%	1.32%	1.08%	0.00%	25.00%	1.07%	1.33%

**Arrow Hwy & Claremont Blvd
Claremont California
Saturday, January 27, 2024**

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	8	40	26	0	74	0	11	67	10	4	88	0	21	49	12	0	82	0	36	165	14	1	215	459
11:15 AM	0	8	28	18	0	54	0	10	87	9	0	106	0	15	51	8	2	74	0	34	196	8	1	238	472
11:30 AM	0	18	51	23	0	92	0	4	87	10	0	101	0	12	45	25	0	82	0	34	208	4	0	246	521
11:45 AM	0	13	48	28	0	89	0	7	83	14	2	104	0	24	49	16	0	89	0	30	193	11	0	234	516
Peak Hour Total	0	47	167	95	0	309	0	32	324	43	6	399	0	72	194	61	2	327	0	134	762	37	2	933	1968
PHF	0.000	0.653	0.819	0.848	0.000	0.840	0.000	0.727	0.931	0.768	0.375	0.941	0.000	0.750	0.951	0.610	0.250	0.919	0.000	0.931	0.916	0.661	0.500	0.948	0.944

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
2:00 PM	1	17	47	28	2	93	0	12	99	17	0	128	0	23	60	13	0	96	0	47	256	4	2	307	624
2:15 PM	0	16	54	29	0	99	0	5	109	14	1	128	0	17	54	17	0	88	0	40	304	15	3	359	674
2:30 PM	0	17	44	26	0	87	0	5	91	18	0	114	0	17	42	16	1	75	0	39	314	13	0	366	642
2:45 PM	1	23	59	26	0	109	0	10	89	17	1	116	0	23	79	11	0	113	0	39	300	10	0	349	687
Peak Hour Total	2	73	204	109	2	388	0	32	388	66	2	486	0	80	235	57	1	372	0	165	1174	42	5	1381	2627
PHF	0.500	0.793	0.864	0.940	0.250	0.890	0.000	0.667	0.890	0.917	0.500	0.949	0.000	0.870	0.744	0.838	0.250	0.823	0.000	0.878	0.935	0.700	0.417	0.943	0.956

Total Vehicles On Leg	3118
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
1445			1673		
Southbound					
Cars	438	738	241	4	10
Heavy	4	4	16	0	1
Total	442	742	257	4	11



Total Vehicles on Leg 7028	Vehicles Entering Intersection 4776	Eastbound	Cars	Heavy	Total		
			9	3	12		
			2	0	2		
	Vehicles Exiting Intersection 2252			599	8	607	
	3957		43	4000			
	167		0	167			



Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 1880	Total Vehicles on Leg 6363		
212	18	230					
1458	26	1484					
Vehicles Exiting Intersection 4483				166		0	166
0	0	0					
16	2	18					



4 Hour Volumes

Cars	1	0	321	829	225
Heavy	5	0	3	3	1
Total	6	0	324	832	226
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
1382			1075		
Total Vehicles On Leg			2457		



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Tue, Oct 11, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

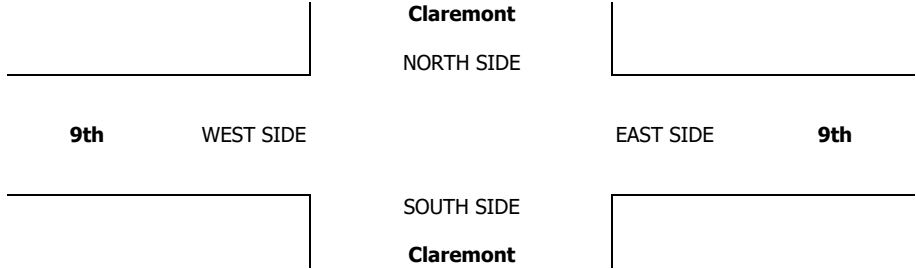
Claremont
Claremont
9th

PROJECT #: SC3668
LOCATION #: 3
CONTROL: STOP E

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND <small>Claremont</small>			SOUTHBOUND <small>Claremont</small>			EASTBOUND <small>9th</small>			WESTBOUND <small>9th</small>			TOTAL
	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	

AM	7:00 AM	19	96	0	0	95	2	9	0	35	0	0	0	256
	7:15 AM	11	99	0	0	81	5	7	0	36	0	0	0	239
	7:30 AM	9	102	0	0	95	4	8	0	35	0	0	0	253
	7:45 AM	8	104	0	0	94	3	9	0	25	0	0	0	243
	8:00 AM	9	102	0	0	98	5	6	0	31	0	0	0	251
	8:15 AM	12	105	0	0	99	4	8	0	31	0	0	0	259
	8:30 AM	15	99	0	0	97	5	9	0	35	0	0	0	260
	8:45 AM	12	97	0	0	95	8	7	0	25	0	0	0	244
	VOLUMES	95	804	0	0	754	36	63	0	253	0	0	0	2,005
	APPROACH %	11%	89%	0%	0%	95%	5%	20%	0%	80%	0%	0%	0%	0%
APP/DEPART	899	/	867	790	/	1,008	316	/	0	0	/	130	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	48	403	0	0	389	22	30	0	122	0	0	0	1,014	
APPROACH %	11%	89%	0%	0%	95%	5%	20%	0%	80%	0%	0%	0%	0%	
PEAK HR FACTOR	0.964			0.998			0.864			0.000			0.975	
APP/DEPART	451	/	433	411	/	512	152	/	0	0	/	69	0	
PM	4:00 PM	21	97	0	0	91	4	11	0	37	0	0	0	261
	4:15 PM	10	115	0	0	84	4	12	0	25	0	0	0	250
	4:30 PM	9	118	0	0	101	5	15	0	24	0	0	0	272
	4:45 PM	12	114	0	0	107	4	4	0	22	0	0	0	263
	5:00 PM	11	105	0	0	114	6	14	0	43	0	0	0	293
	5:15 PM	15	111	0	0	100	5	9	0	27	0	0	0	267
	5:30 PM	17	123	0	0	104	9	13	0	31	0	0	0	297
	5:45 PM	15	125	0	0	96	10	8	0	20	0	0	0	274
	VOLUMES	110	908	0	0	797	47	86	0	229	0	0	0	2,177
	APPROACH %	11%	89%	0%	0%	94%	6%	27%	0%	73%	0%	0%	0%	0%
APP/DEPART	1,018	/	994	844	/	1,029	315	/	0	0	/	154	0	
BEGIN PEAK HR	5:00 PM													
VOLUMES	58	464	0	0	414	30	44	0	121	0	0	0	1,131	
APPROACH %	11%	89%	0%	0%	93%	7%	27%	0%	73%	0%	0%	0%	0%	
PEAK HR FACTOR	0.932			0.925			0.724			0.000			0.952	
APP/DEPART	522	/	508	444	/	536	165	/	0	0	/	87	0	

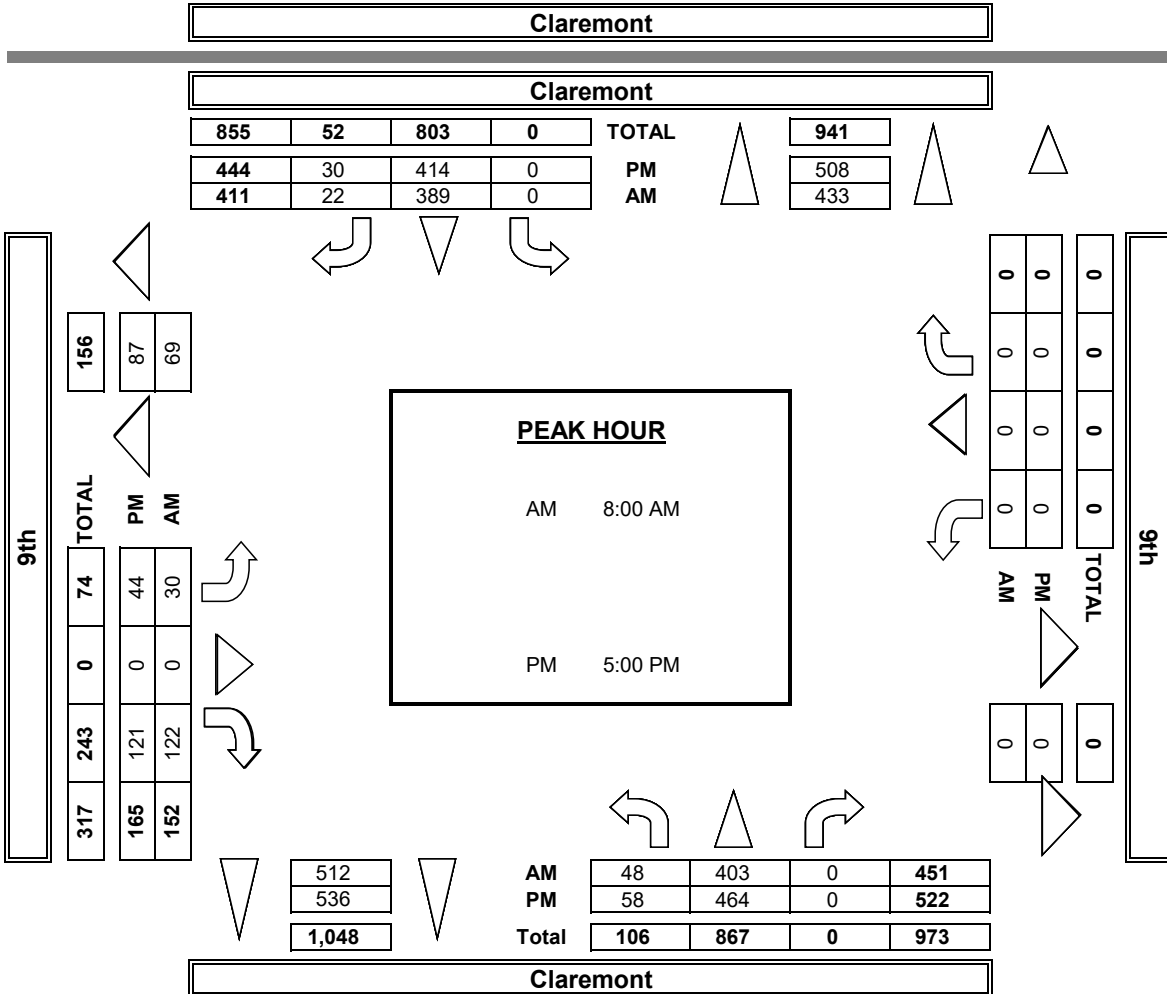
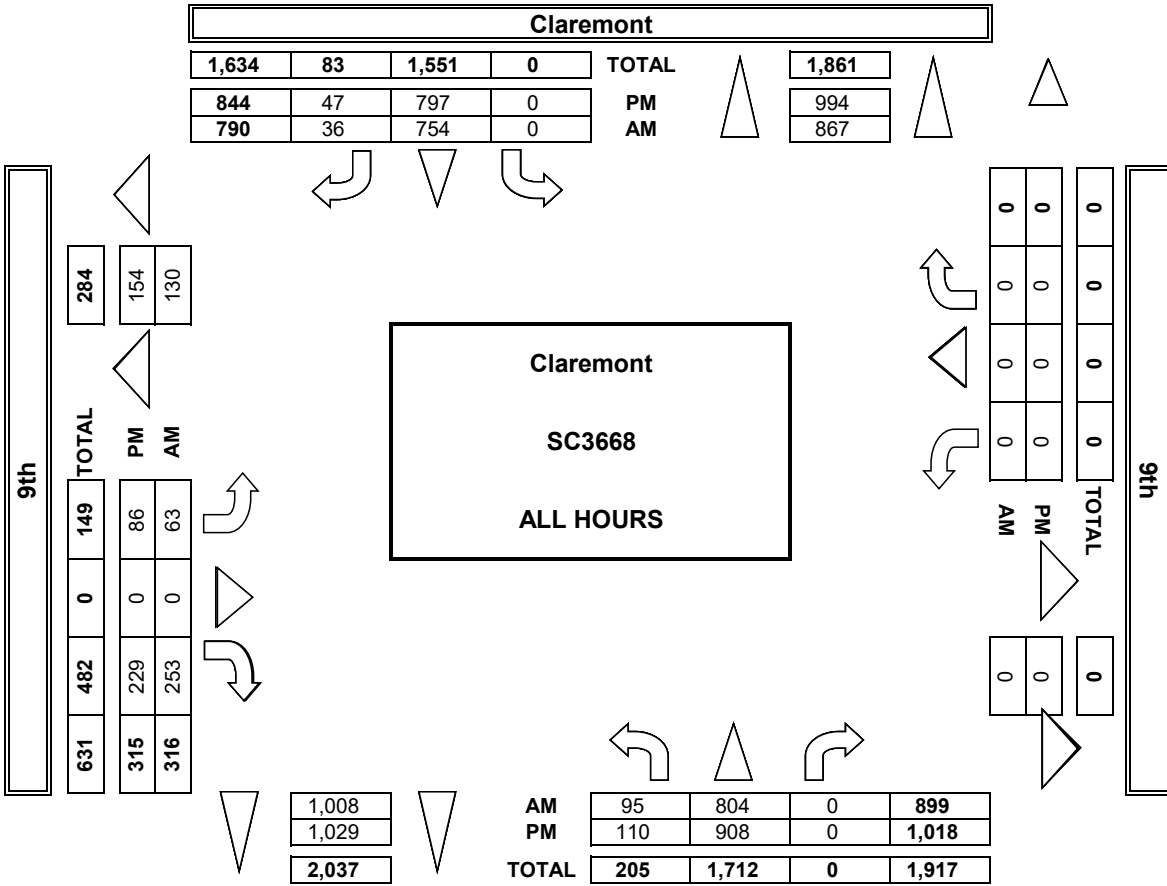


AM	7:00 AM	0	0	0	0	0
	7:15 AM	1	0	2	1	4
	7:30 AM	0	0	1	3	4
	7:45 AM	0	0	0	3	3
	8:00 AM	1	0	1	2	4
	8:15 AM	0	0	0	3	3
	8:30 AM	0	0	1	3	4
	8:45 AM	0	0	0	2	2
TOTAL	2	0	5	17	24	
PM	4:00 PM	1	0	1	1	3
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	2	5	7
	4:45 PM	0	0	2	2	4
	5:00 PM	0	0	0	2	2
	5:15 PM	0	0	0	3	3
	5:30 PM	0	0	0	6	6
	5:45 PM	0	0	0	1	1
TOTAL	1	0	5	20	26	

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
1	0	2	1	4
0	0	1	3	4
0	0	0	3	3
1	0	1	2	4
0	0	0	3	3
0	0	1	3	4
0	0	0	2	2
2	0	5	17	24
1	0	1	1	3
0	0	0	0	0
0	0	2	5	7
0	0	2	2	4
0	0	0	2	2
0	0	0	3	3
0	0	0	6	6
0	0	0	1	1
1	0	5	20	26

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	3	3
0	0	0	2	2
0	0	0	1	1
0	0	0	1	1
0	0	0	2	2
0	0	0	2	2
0	0	0	11	11
0	0	0	0	0
0	0	0	0	0
0	0	0	5	5
0	0	0	0	0
0	0	0	2	2
0	0	0	2	2
0	0	0	5	5
0	0	0	1	1
0	0	0	15	15

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:
Sat, Oct 1, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

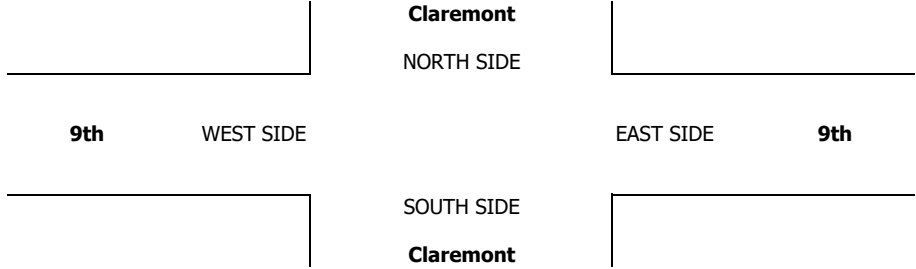
Claremont
Claremont
9th

PROJECT #: SC3668
LOCATION #: 3
CONTROL: STOP E

NOTES:	AM		▲ N	
	PM			
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Claremont			Claremont			9th			9th			
	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	

MD	11:00 AM	17	81	0	0	81	8	10	0	16	0	0	0	213	
	11:15 AM	24	79	0	0	89	7	8	0	17	0	0	0	224	
	11:30 AM	11	94	0	0	70	8	5	0	20	0	0	0	208	
	11:45 AM	16	80	0	0	71	14	5	0	17	0	0	0	203	
	12:00 PM	15	92	0	0	86	6	10	0	13	0	0	0	222	
	12:15 PM	14	87	0	0	83	8	8	0	19	0	0	0	219	
	12:30 PM	7	73	0	0	73	11	5	0	12	0	0	0	181	
	12:45 PM	15	68	0	0	79	11	7	0	12	0	0	0	192	
	1:00 PM	15	90	0	0	80	12	13	0	40	0	0	0	250	
	1:15 PM	18	81	0	0	80	7	13	0	19	0	0	0	218	
VOLUMES		152	825	0	0	792	92	84	0	185	0	0	0	2,137	
APPROACH %		15%	84%	0%	0%	90%	10%	31%	0%	68%	0%	0%	0%		
APP/DEPART		981	/	909	884	/	981	272	/	0	0	/	247	0	
BEGIN PEAK HR		11:15 AM													
VOLUMES		66	345	0	0	316	35	28	0	67	0	0	0	860	
APPROACH %		16%	84%	0%	0%	90%	10%	29%	0%	70%	0%	0%	0%		
PEAK HR FACTOR		0.965			0.914			0.960			0.000			0.960	
APP/DEPART		413	/	373	351	/	385	96	/	0	0	/	102	0	
PM	03:00 PM	24	73	0	0	83	6	9	0	13	0	0	0	208	
	3:15 PM	22	73	0	0	72	5	8	0	15	0	0	0	195	
	3:30 PM	12	72	0	0	71	9	8	0	11	0	0	0	183	
	3:45 PM	10	80	0	0	78	8	6	0	14	0	0	0	196	
	4:00 PM	21	66	0	0	88	8	6	0	11	0	0	0	200	
	4:15 PM	9	76	0	0	68	12	10	0	28	0	0	0	203	
	4:30 PM	14	62	0	0	65	7	6	0	21	0	0	0	175	
	4:45 PM	14	75	0	0	62	13	9	0	25	0	0	0	198	
	VOLUMES		126	577	0	0	587	68	62	0	138	0	0	0	1,565
	APPROACH %		18%	81%	0%	0%	89%	10%	31%	0%	69%	0%	0%	0%	
APP/DEPART		709	/	640	656	/	731	200	/	0	0	/	194	0	
BEGIN PEAK HR		3:00 PM													
VOLUMES		52	294	0	0	305	37	30	0	64	0	0	0	788	
APPROACH %		15%	84%	0%	0%	89%	11%	32%	0%	68%	0%	0%	0%		
PEAK HR FACTOR		0.895			0.893			0.618			0.000			0.943	
APP/DEPART		351	/	325	343	/	374	94	/	0	0	/	89	0	

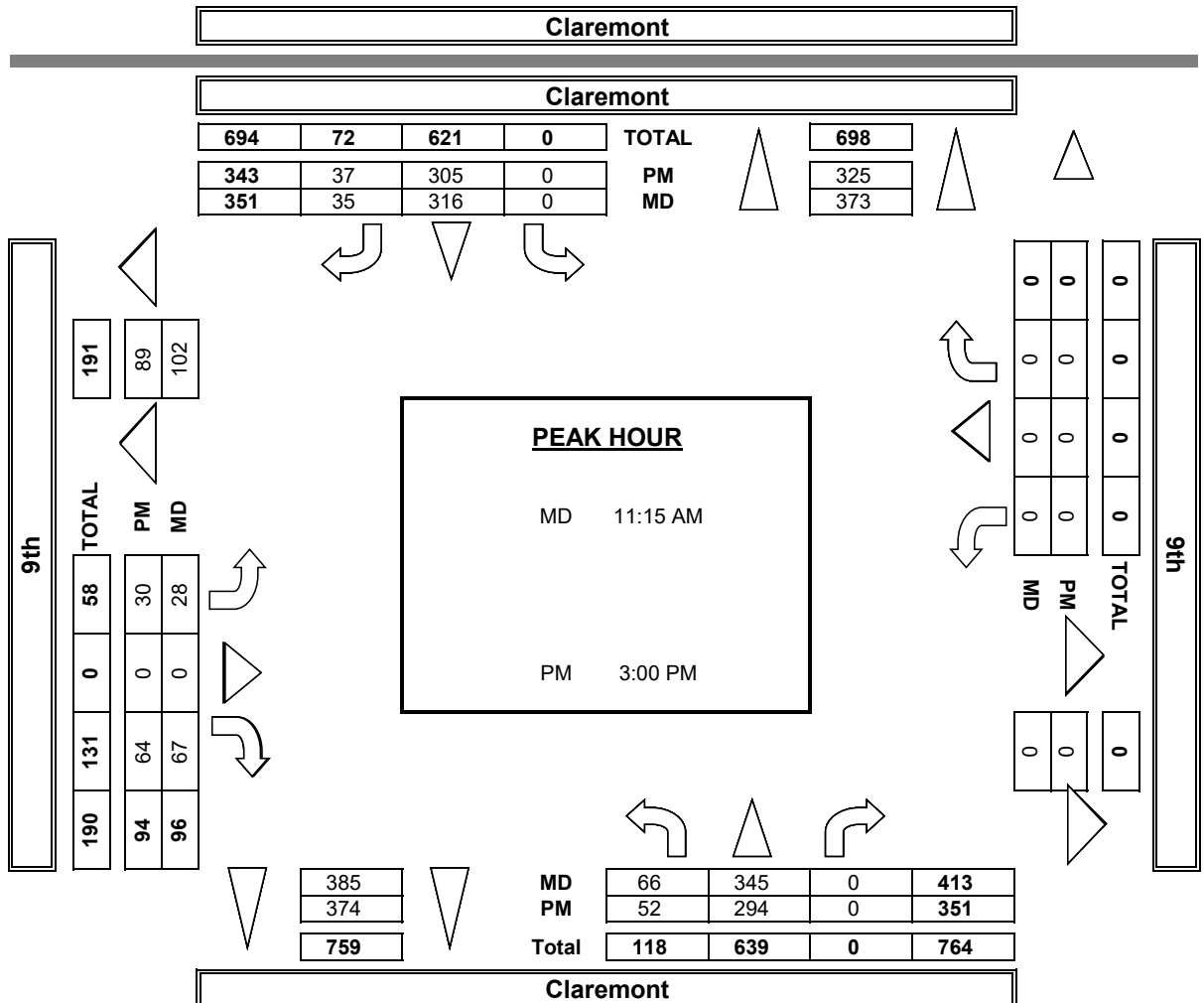
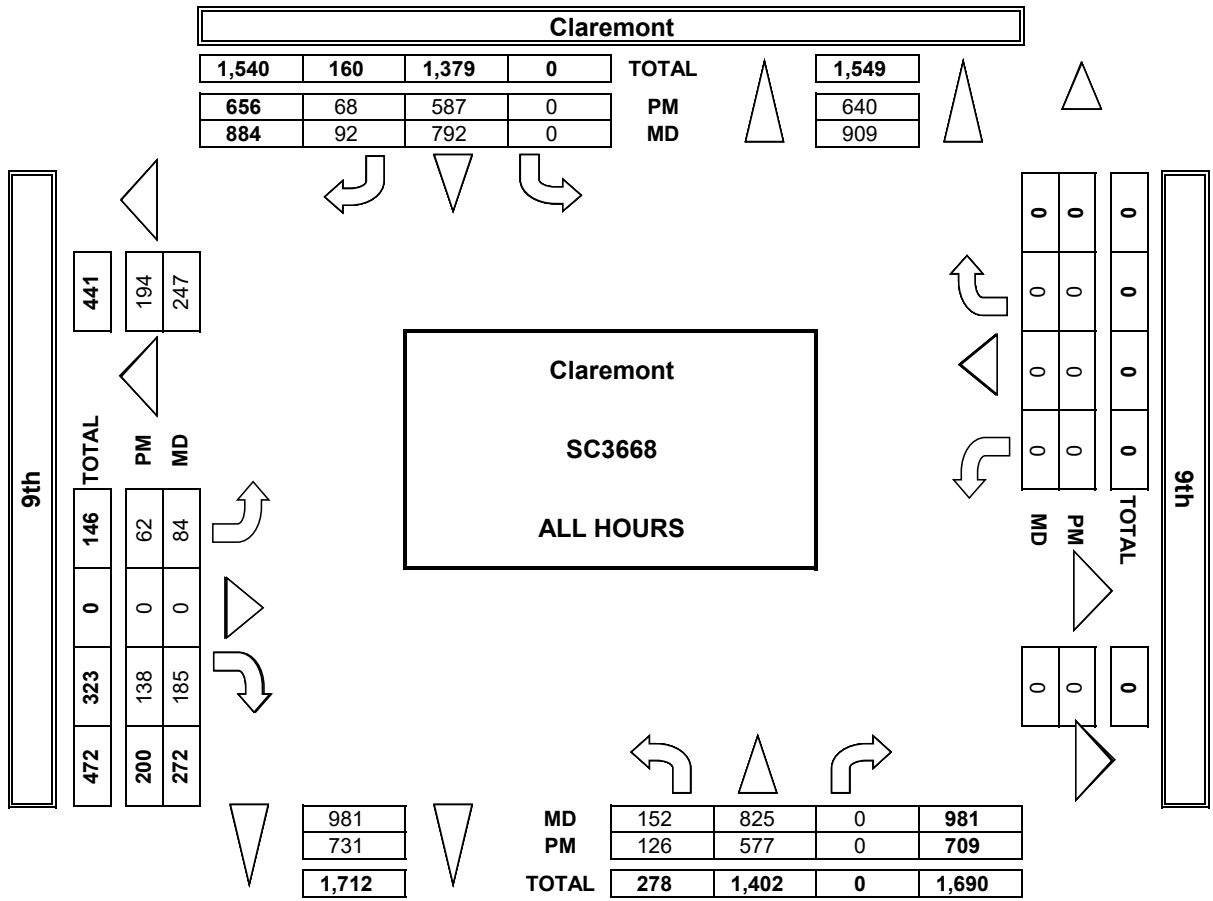


MD	11:00 AM	1	0	1	1	3
	11:15 AM	0	0	0	1	1
	11:30 AM	0	0	0	2	2
	11:45 AM	1	0	1	1	3
	12:00 PM	0	0	0	1	1
	12:15 PM	0	0	0	5	5
	12:30 PM	0	0	0	0	0
	12:45 PM	0	0	0	4	4
	1:00 PM	0	0	0	1	1
	1:15 PM	0	0	0	1	1
TOTAL		2	0	2	17	21
PM	3:00 PM	1	0	1	2	4
	3:15 PM	1	0	1	1	3
	3:30 PM	0	0	0	1	1
	3:45 PM	1	0	1	2	4
	4:00 PM	0	0	0	1	1
	4:15 PM	0	0	1	12	13
	4:30 PM	1	0	2	0	3
	4:45 PM	0	0	0	0	0
TOTAL		4	0	6	19	29

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	1	1	3
0	0	0	1	1
0	0	0	2	2
1	0	1	1	3
0	0	0	1	1
0	0	0	5	5
0	0	0	0	0
0	0	0	4	4
0	0	0	1	1
0	0	0	1	1
2	0	2	17	21
1	0	1	2	4
1	0	1	1	3
0	0	0	1	1
1	0	1	2	4
0	0	0	1	1
0	0	1	12	13
1	0	2	0	3
0	0	0	0	0
4	0	6	19	29

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	1	1
0	0	0	0	0
0	0	0	2	2
0	0	0	0	0
0	0	0	1	1
0	0	0	2	2
0	0	0	0	0
0	0	0	3	3
0	0	0	1	1
0	0	0	1	1
0	0	0	11	11
0	0	0	2	2
0	0	0	0	0
0	0	0	1	1
0	0	0	2	2
0	0	0	1	1
0	0	0	12	12
0	0	0	0	0
0	0	0	0	0
0	0	0	18	18

AimTD LLC
TURNING MOVEMENT COUNTS



**Monte Vista Ave and Richton St
Claremont California
Thursday, January 25, 2024**

Time	Southbound Monte Vista Ave						Westbound Richton St						Northbound Monte Vista Ave						Eastbound Richton St						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:00 AM	0	4	108	0	0	112	0	12	0	8	0	20	0	0	58	14	0	72	0	0	0	0	0	0	204
7:15 AM	0	5	123	0	0	128	0	23	0	13	2	36	0	0	82	10	0	92	0	0	0	0	0	0	256
7:30 AM	1	9	126	0	0	136	0	25	0	14	0	39	0	0	93	11	0	104	0	0	0	0	1	0	279
7:45 AM	0	10	128	0	0	138	0	22	0	30	0	52	0	0	121	18	0	139	0	0	0	0	2	0	329
Hourly Total	1	28	485	0	0	514	0	82	0	65	2	147	0	0	354	53	0	407	0	0	0	0	3	0	1068
8:00 AM	0	19	131	1	0	151	0	2	0	16	0	18	0	0	102	12	0	114	0	0	0	0	1	0	283
8:15 AM	0	17	121	0	0	138	0	16	0	13	0	29	0	0	111	10	0	121	0	0	0	0	0	0	288
8:30 AM	0	4	130	0	0	134	0	18	0	17	0	35	1	0	89	4	0	94	0	0	0	0	0	0	263
8:45 AM	0	9	110	0	0	119	0	16	0	11	0	27	0	0	120	9	0	129	0	0	0	0	1	0	275
Hourly Total	0	49	492	1	0	542	0	52	0	57	0	109	1	0	422	35	0	458	0	0	0	0	2	0	1109
4:00 PM	1	12	164	0	0	177	0	20	0	14	1	34	0	0	132	17	0	149	0	0	0	0	0	0	360
4:15 PM	0	13	147	0	0	160	0	17	0	15	1	32	0	0	119	13	1	132	0	0	0	0	2	0	324
4:30 PM	1	17	142	0	0	160	0	30	0	17	0	47	1	0	131	12	0	144	0	0	0	0	0	0	351
4:45 PM	1	16	152	0	0	169	0	21	0	20	0	41	0	0	144	17	0	161	0	0	0	0	0	0	371
Hourly Total	3	58	605	0	0	666	0	88	0	66	2	154	1	0	526	59	1	586	0	0	0	0	2	0	1406
5:00 PM	1	12	150	0	1	163	0	30	0	23	1	53	0	0	125	15	0	140	0	0	0	0	0	0	356
5:15 PM	0	14	163	0	0	177	0	15	0	20	1	35	0	0	129	19	0	148	0	0	0	0	3	0	360
5:30 PM	0	6	168	0	0	174	0	14	0	12	3	26	0	0	142	12	0	154	0	0	0	0	1	0	354
5:45 PM	0	1	153	0	0	154	0	26	0	16	0	42	1	0	154	24	0	179	0	0	0	0	0	0	375
Hourly Total	1	33	634	0	1	668	0	85	0	71	5	156	1	0	550	70	0	621	0	0	0	0	4	0	1445
4 Hours TOTAL	5	168	2216	1	1	2390	0	307	0	259	9	566	3	0	1852	217	1	2072	0	0	0	0	11	0	5028
Cars	5	146	2157	1	1	2309	0	254	0	246	7	500	3	0	1778	172	1	1953	0	0	0	0	9	0	4762
Heavy Vehicles	0	22	59	0	0	81	0	53	0	13	2	66	0	0	74	45	0	119	0	0	0	0	2	0	266
Heavy Vehicle %	0.00%	13.10%	2.86%	0.00%	0.00%	3.39%	0.00%	17.26%	0.00%	5.02%	2.22%	11.66%	0.00%	0.00%	4.00%	20.74%	0.00%	5.74%	0.00%	0.00%	0.00%	0.00%	18.18%	0.00%	5.29%

**Monte Vista Ave and Richton St
Claremont California
Thursday, January 25, 2024**

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:30 AM	1	9	126	0	0	136	0	25	0	14	0	39	0	0	93	11	0	104	0	0	0	0	1	0	279
7:45 AM	0	10	128	0	0	138	0	22	0	30	0	52	0	0	121	18	0	139	0	0	0	0	2	0	329
8:00 AM	0	19	131	1	0	151	0	2	0	16	0	18	0	0	102	12	0	114	0	0	0	0	1	0	283
8:15 AM	0	17	121	0	0	138	0	16	0	13	0	29	0	0	111	10	0	121	0	0	0	0	0	0	288
Peak Hour Total	1	55	506	1	0	563	0	65	0	73	0	138	0	0	427	51	0	478	0	0	0	0	4	0	1179
PHF	0.250	0.724	0.966	0.250	0.000	0.932	0.000	0.650	0.000	0.608	0.000	0.663	0.000	0.000	0.882	0.708	0.000	0.860	0.000	0.000	0.000	0.000	0.500	0.000	0.896

PM Peak Hour

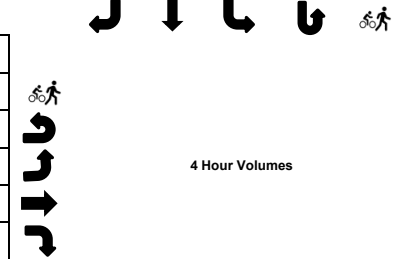
Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
5:00 PM	1	12	150	0	1	163	0	30	0	23	1	53	0	0	125	15	0	140	0	0	0	0	0	0	356
5:15 PM	0	14	163	0	0	177	0	15	0	20	1	35	0	0	129	19	0	148	0	0	0	0	3	0	360
5:30 PM	0	6	168	0	0	174	0	14	0	12	3	26	0	0	142	12	0	154	0	0	0	0	1	0	354
5:45 PM	0	1	153	0	0	154	0	26	0	16	0	42	1	0	154	24	0	179	0	0	0	0	0	0	375
Peak Hour Total	1	33	634	0	1	668	0	85	0	71	5	156	1	0	550	70	0	621	0	0	0	0	4	0	1445
PHF	0.250	0.589	0.943	0.000	0.250	0.944	0.000	0.708	0.000	0.772	0.417	0.736	0.250	0.000	0.893	0.729	0.000	0.867	0.000	0.000	0.000	0.000	0.333	0.000	0.963

Total Vehicles On Leg 4506

Vehicles Entering Intersection		2390		Vehicles Exiting Intersection		2116	
Southbound							
Cars	1	2157	146	5	1		
Heavy	0	59	22	0	0		
Total	1	2216	168	5	1		

Total Vehicles on Leg 1	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total
	0		9	2	11
			0	0	0
	Vehicles Exiting Intersection		0	0	0
	1		0	0	0

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 951
246	13	259		566	
0	0	0			
254	53	307		Vehicles Exiting Intersection	
0	0	0		385	
7	2	9			



Cars	1	3	0	1778	172
Heavy	0	0	0	74	45
Total	1	3	0	1852	217
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
2072			2526		
Total Vehicles On Leg			4598		

**Monte Vista Ave and Richton St
Claremont California
Saturday, January 27, 2024**

Time	Southbound Monte Vista Ave						Westbound Richton St						Northbound Monte Vista Ave						Eastbound Richton St						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	9	155	0	0	164	0	11	0	4	0	15	0	0	102	12	0	114	0	0	0	0	1	0	293
11:15 AM	1	5	137	0	0	143	0	10	0	13	0	23	0	0	121	10	0	131	0	0	0	0	0	0	297
11:30 AM	0	5	138	0	0	143	0	12	0	9	1	21	2	0	112	6	0	120	0	0	0	0	0	0	284
11:45 AM	0	7	154	0	0	161	0	9	0	11	0	20	0	0	106	7	0	113	0	0	0	0	0	0	294
Hourly Total	1	26	584	0	0	611	0	42	0	37	1	79	2	0	441	35	0	478	0	0	0	0	1	0	1168
12:00 PM	4	8	134	0	0	146	0	17	0	11	0	28	1	0	103	17	0	121	0	0	0	0	0	0	295
12:15 PM	2	3	146	0	0	151	0	13	0	10	1	23	1	0	94	5	0	100	0	0	0	0	0	0	274
12:30 PM	0	9	122	0	0	131	0	17	0	12	0	29	0	0	131	11	0	142	0	0	0	0	0	0	302
12:45 PM	2	8	165	0	0	175	0	8	1	10	0	19	1	0	120	10	0	131	0	0	0	0	0	0	325
Hourly Total	8	28	567	0	0	603	0	55	1	43	1	99	3	0	448	43	0	494	0	0	0	0	0	0	1196
1:00 PM	1	3	177	0	0	181	0	14	0	8	2	22	0	0	120	12	0	132	0	0	0	0	0	0	335
1:15 PM	0	6	154	0	0	160	0	16	0	7	1	23	0	0	114	14	0	128	0	0	0	0	0	0	311
1:30 PM	0	7	165	0	0	172	0	15	1	9	1	25	0	0	117	11	0	128	0	0	0	0	0	0	325
1:45 PM	0	4	162	0	0	166	1	14	0	8	0	23	0	0	139	11	0	150	0	0	1	0	1	1	340
Hourly Total	1	20	658	0	0	679	1	59	1	32	4	93	0	0	490	48	0	538	0	0	1	0	1	1	1311
2:00 PM	1	6	154	0	0	161	0	10	0	9	2	19	0	0	111	14	0	125	0	0	0	0	0	0	305
2:15 PM	0	7	172	0	0	179	0	12	0	8	0	20	0	0	113	11	0	124	0	0	0	0	0	0	323
2:30 PM	0	8	165	0	0	173	0	11	0	12	0	23	0	0	118	14	1	132	0	0	0	0	0	0	328
2:45 PM	2	8	161	0	0	171	0	7	0	5	1	12	1	0	111	11	0	123	0	0	0	0	0	0	306
Hourly Total	3	29	652	0	0	684	0	40	0	34	3	74	1	0	453	50	1	504	0	0	0	0	0	0	1262
4 Hours TOTAL	13	103	2461	0	0	2577	1	196	2	146	9	345	6	0	1832	176	1	2014	0	0	1	0	2	1	4937
Cars	13	99	2440	0	0	2552	1	165	2	144	8	312	6	0	1800	152	1	1958	0	0	1	0	2	1	4823
Heavy Vehicles	0	4	21	0	0	25	0	31	0	2	1	33	0	0	32	24	0	56	0	0	0	0	0	0	114
Heavy Vehicle %	0.00%	3.88%	0.85%	0.00%	0.00%	0.97%	0.00%	15.82%	0.00%	1.37%	0.85%	9.57%	0.00%	0.00%	1.75%	13.64%	0.00%	2.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.31%

**Monte Vista Ave and Richton St
Claremont California
Saturday, January 27, 2024**

AM Peak Hour

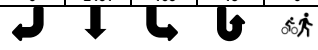
Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	0	9	155	0	0	164	0	11	0	4	0	15	0	0	102	12	0	114	0	0	0	0	1	0	293
11:15 AM	1	5	137	0	0	143	0	10	0	13	0	23	0	0	121	10	0	131	0	0	0	0	0	0	297
11:30 AM	0	5	138	0	0	143	0	12	0	9	1	21	2	0	112	6	0	120	0	0	0	0	0	0	284
11:45 AM	0	7	154	0	0	161	0	9	0	11	0	20	0	0	106	7	0	113	0	0	0	0	0	0	294
Peak Hour Total	1	26	584	0	0	611	0	42	0	37	1	79	2	0	441	35	0	478	0	0	0	0	1	0	1168
PHF	0.250	0.722	0.942	0.000	0.000	0.931	0.000	0.875	0.000	0.712	0.250	0.859	0.250	0.000	0.911	0.729	0.000	0.912	0.000	0.000	0.000	0.000	0.250	0.000	0.983

PM Peak Hour

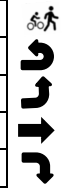
Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
1:00 PM	1	3	177	0	0	181	0	14	0	8	2	22	0	0	120	12	0	132	0	0	0	0	0	0	335
1:15 PM	0	6	154	0	0	160	0	16	0	7	1	23	0	0	114	14	0	128	0	0	0	0	0	0	311
1:30 PM	0	7	165	0	0	172	0	15	1	9	1	25	0	0	117	11	0	128	0	0	0	0	0	0	325
1:45 PM	0	4	162	0	0	166	1	14	0	8	0	23	0	0	139	11	0	150	0	0	1	0	1	1	340
Peak Hour Total	1	20	658	0	0	679	1	59	1	32	4	93	0	0	490	48	0	538	0	0	1	0	1	1	1311
PHF	0.250	0.714	0.929	0.000	0.000	0.938	0.250	0.922	0.250	0.889	0.500	0.930	0.000	0.000	0.881	0.857	0.000	0.897	0.000	0.000	0.250	0.000	0.250	0.250	0.964

Total Vehicles On Leg	4568
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Vehicles Entering Intersection			Vehicles Exiting Intersection		
2577			1991		
Southbound					
Cars	0	2440	99	13	0
Heavy	0	21	4	0	0
Total	0	2461	103	13	0



Total Vehicles on Leg 3	Vehicles Entering Intersection 1	Eastbound	Cars	Heavy	Total
			2	0	2
			0	0	0
	Vehicles Exiting Intersection 2		0	0	0
			1	0	1
	0	0	0		

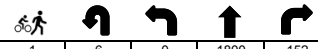


Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 626
144	2	146		345	
2	0	2			
165	31	196		Vehicles Exiting Intersection	
1	0	1		281	
8	1	9			



4 Hour Volumes

Cars	1	6	0	1800	152
Heavy	0	0	0	32	24
Total	1	6	0	1832	176
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
2014			2663		
Total Vehicles On Leg			4677		



For CITY OF UPLAND
Location Foothill Blvd, East of Monte Vista Ave
Task ADT

Study Volume

Date	Timeslot	EastBound	WestBound	Total
12/14/2023	00:00-00:14	21	18	39
12/14/2023	00:15-00:29	18	17	35
12/14/2023	00:30-00:44	28	19	47
12/14/2023	00:45-00:59	14	21	35
12/14/2023	01:00-01:14	9	16	25
12/14/2023	01:15-01:29	11	9	20
12/14/2023	01:30-01:44	12	17	29
12/14/2023	01:45-01:59	7	12	19
12/14/2023	02:00-02:14	6	16	22
12/14/2023	02:15-02:29	11	9	20
12/14/2023	02:30-02:44	7	8	15
12/14/2023	02:45-02:59	6	5	11
12/14/2023	03:00-03:14	5	6	11
12/14/2023	03:15-03:29	9	8	17
12/14/2023	03:30-03:44	10	10	20
12/14/2023	03:45-03:59	17	11	28
12/14/2023	04:00-04:14	8	8	16
12/14/2023	04:15-04:29	12	12	24
12/14/2023	04:30-04:44	26	24	50
12/14/2023	04:45-04:59	24	28	52
12/14/2023	05:00-05:14	11	24	35
12/14/2023	05:15-05:29	19	36	55
12/14/2023	05:30-05:44	34	61	95
12/14/2023	05:45-05:59	48	91	139
12/14/2023	06:00-06:14	32	105	137
12/14/2023	06:15-06:29	47	125	172
12/14/2023	06:30-06:44	40	168	208
12/14/2023	06:45-06:59	61	167	228
12/14/2023	07:00-07:14	76	173	249
12/14/2023	07:15-07:29	126	166	292
12/14/2023	07:30-07:44	138	250	388
12/14/2023	07:45-07:59	156	313	469
12/14/2023	08:00-08:14	171	237	408
12/14/2023	08:15-08:29	171	178	349
12/14/2023	08:30-08:44	150	215	365
12/14/2023	08:45-08:59	129	199	328

12/14/2023	09:00-09:14	136	157	293
12/14/2023	09:15-09:29	142	133	275
12/14/2023	09:30-09:44	132	150	282
12/14/2023	09:45-09:59	162	134	296
12/14/2023	10:00-10:14	155	159	314
12/14/2023	10:15-10:29	139	153	292
12/14/2023	10:30-10:44	141	146	287
12/14/2023	10:45-10:59	136	170	306
12/14/2023	11:00-11:14	163	148	311
12/14/2023	11:15-11:29	188	166	354
12/14/2023	11:30-11:44	181	187	368
12/14/2023	11:45-11:59	205	178	383
12/14/2023	12:00-12:14	192	151	343
12/14/2023	12:15-12:29	227	184	411
12/14/2023	12:30-12:44	186	193	379
12/14/2023	12:45-12:59	211	189	400
12/14/2023	13:00-13:14	237	197	434
12/14/2023	13:15-13:29	197	177	374
12/14/2023	13:30-13:44	200	169	369
12/14/2023	13:45-13:59	188	203	391
12/14/2023	14:00-14:14	223	179	402
12/14/2023	14:15-14:29	202	208	410
12/14/2023	14:30-14:44	269	207	476
12/14/2023	14:45-14:59	273	192	465
12/14/2023	15:00-15:14	241	187	428
12/14/2023	15:15-15:29	308	189	497
12/14/2023	15:30-15:44	246	180	426
12/14/2023	15:45-15:59	266	221	487
12/14/2023	16:00-16:14	358	179	537
12/14/2023	16:15-16:29	284	183	467
12/14/2023	16:30-16:44	336	211	547
12/14/2023	16:45-16:59	333	186	519
12/14/2023	17:00-17:14	343	198	541
12/14/2023	17:15-17:29	327	207	534
12/14/2023	17:30-17:44	320	208	528
12/14/2023	17:45-17:59	330	218	548
12/14/2023	18:00-18:14	318	154	472
12/14/2023	18:15-18:29	248	152	400
12/14/2023	18:30-18:44	207	174	381
12/14/2023	18:45-18:59	172	134	306
12/14/2023	19:00-19:14	162	135	297
12/14/2023	19:15-19:29	109	130	239
12/14/2023	19:30-19:44	146	143	289
12/14/2023	19:45-19:59	117	106	223
12/14/2023	20:00-20:14	132	105	237
12/14/2023	20:15-20:29	140	116	256
12/14/2023	20:30-20:44	78	83	161

12/14/2023	20:45-20:59	97	96	193
12/14/2023	21:00-21:14	100	71	171
12/14/2023	21:15-21:29	90	103	193
12/14/2023	21:30-21:44	79	80	159
12/14/2023	21:45-21:59	50	63	113
12/14/2023	22:00-22:14	58	45	103
12/14/2023	22:15-22:29	42	50	92
12/14/2023	22:30-22:44	51	42	93
12/14/2023	22:45-22:59	45	58	103
12/14/2023	23:00-23:14	36	43	79
12/14/2023	23:15-23:29	23	30	53
12/14/2023	23:30-23:44	26	26	52
12/14/2023	23:45-23:59	29	25	54

For CITY OF UPLAND
Location Foothill Blvd, East of Monte Vista Ave
Task ADT

Study Volume

Date	Timeslot	EastBound	WestBound	Total
12/16/2023	00:00-00:14	30	29	59
12/16/2023	00:15-00:29	25	17	42
12/16/2023	00:30-00:44	32	34	66
12/16/2023	00:45-00:59	19	25	44
12/16/2023	01:00-01:14	18	23	41
12/16/2023	01:15-01:29	14	21	35
12/16/2023	01:30-01:44	18	14	32
12/16/2023	01:45-01:59	9	22	31
12/16/2023	02:00-02:14	10	15	25
12/16/2023	02:15-02:29	9	11	20
12/16/2023	02:30-02:44	6	10	16
12/16/2023	02:45-02:59	9	11	20
12/16/2023	03:00-03:14	12	11	23
12/16/2023	03:15-03:29	6	12	18
12/16/2023	03:30-03:44	7	9	16
12/16/2023	03:45-03:59	9	17	26
12/16/2023	04:00-04:14	11	13	24
12/16/2023	04:15-04:29	8	10	18
12/16/2023	04:30-04:44	5	10	15
12/16/2023	04:45-04:59	13	12	25
12/16/2023	05:00-05:14	8	11	19
12/16/2023	05:15-05:29	10	7	17
12/16/2023	05:30-05:44	21	19	40
12/16/2023	05:45-05:59	23	36	59
12/16/2023	06:00-06:14	19	24	43
12/16/2023	06:15-06:29	30	29	59
12/16/2023	06:30-06:44	34	38	72
12/16/2023	06:45-06:59	41	49	90
12/16/2023	07:00-07:14	44	55	99
12/16/2023	07:15-07:29	47	64	111
12/16/2023	07:30-07:44	58	85	143
12/16/2023	07:45-07:59	75	80	155
12/16/2023	08:00-08:14	59	79	138
12/16/2023	08:15-08:29	89	97	186
12/16/2023	08:30-08:44	98	113	211
12/16/2023	08:45-08:59	110	114	224

12/16/2023	09:00-09:14	105	108	213
12/16/2023	09:15-09:29	121	110	231
12/16/2023	09:30-09:44	127	146	273
12/16/2023	09:45-09:59	143	147	290
12/16/2023	10:00-10:14	146	142	288
12/16/2023	10:15-10:29	160	147	307
12/16/2023	10:30-10:44	166	150	316
12/16/2023	10:45-10:59	185	155	340
12/16/2023	11:00-11:14	174	191	365
12/16/2023	11:15-11:29	192	158	350
12/16/2023	11:30-11:44	193	177	370
12/16/2023	11:45-11:59	199	191	390
12/16/2023	12:00-12:14	206	169	375
12/16/2023	12:15-12:29	207	182	389
12/16/2023	12:30-12:44	199	198	397
12/16/2023	12:45-12:59	186	177	363
12/16/2023	13:00-13:14	204	215	419
12/16/2023	13:15-13:29	198	212	410
12/16/2023	13:30-13:44	168	167	335
12/16/2023	13:45-13:59	210	180	390
12/16/2023	14:00-14:14	186	213	399
12/16/2023	14:15-14:29	183	164	347
12/16/2023	14:30-14:44	218	155	373
12/16/2023	14:45-14:59	189	150	339
12/16/2023	15:00-15:14	214	185	399
12/16/2023	15:15-15:29	185	169	354
12/16/2023	15:30-15:44	239	159	398
12/16/2023	15:45-15:59	214	154	368
12/16/2023	16:00-16:14	187	204	391
12/16/2023	16:15-16:29	181	176	357
12/16/2023	16:30-16:44	190	163	353
12/16/2023	16:45-16:59	199	191	390
12/16/2023	17:00-17:14	219	183	402
12/16/2023	17:15-17:29	202	168	370
12/16/2023	17:30-17:44	189	180	369
12/16/2023	17:45-17:59	171	139	310
12/16/2023	18:00-18:14	169	152	321
12/16/2023	18:15-18:29	168	142	310
12/16/2023	18:30-18:44	151	136	287
12/16/2023	18:45-18:59	131	141	272
12/16/2023	19:00-19:14	110	137	247
12/16/2023	19:15-19:29	115	109	224
12/16/2023	19:30-19:44	137	105	242
12/16/2023	19:45-19:59	127	93	220
12/16/2023	20:00-20:14	125	82	207
12/16/2023	20:15-20:29	84	90	174
12/16/2023	20:30-20:44	89	70	159

12/16/2023	20:45-20:59	99	73	172
12/16/2023	21:00-21:14	89	74	163
12/16/2023	21:15-21:29	97	72	169
12/16/2023	21:30-21:44	99	78	177
12/16/2023	21:45-21:59	112	81	193
12/16/2023	22:00-22:14	127	88	215
12/16/2023	22:15-22:29	108	58	166
12/16/2023	22:30-22:44	108	51	159
12/16/2023	22:45-22:59	87	45	132
12/16/2023	23:00-23:14	51	44	95
12/16/2023	23:15-23:29	39	43	82
12/16/2023	23:30-23:44	50	46	96
12/16/2023	23:45-23:59	38	33	71

For CITY OF UPLAND
Location Monte Vista Ave,South of Foothill Blvd
Task ADT&Speed Profile

***** Study Volume Date	***** Timeslot	SouthBound	NorthBound	Total
12/14/2023	00:00-00:14	18	14	32
12/14/2023	00:15-00:29	11	18	29
12/14/2023	00:30-00:44	19	16	35
12/14/2023	00:45-00:59	10	15	25
12/14/2023	01:00-01:14	6	7	13
12/14/2023	01:15-01:29	5	9	14
12/14/2023	01:30-01:44	14	10	24
12/14/2023	01:45-01:59	8	4	12
12/14/2023	02:00-02:14	7	2	9
12/14/2023	02:15-02:29	4	4	8
12/14/2023	02:30-02:44	5	5	10
12/14/2023	02:45-02:59	8	4	12
12/14/2023	03:00-03:14	10	0	10
12/14/2023	03:15-03:29	8	2	10
12/14/2023	03:30-03:44	11	4	15
12/14/2023	03:45-03:59	13	11	24
12/14/2023	04:00-04:14	8	5	13
12/14/2023	04:15-04:29	16	13	29
12/14/2023	04:30-04:44	17	18	35
12/14/2023	04:45-04:59	28	23	51
12/14/2023	05:00-05:14	23	13	36
12/14/2023	05:15-05:29	25	29	54
12/14/2023	05:30-05:44	30	33	63
12/14/2023	05:45-05:59	40	38	78
12/14/2023	06:00-06:14	57	24	81
12/14/2023	06:15-06:29	67	29	96
12/14/2023	06:30-06:44	98	49	147
12/14/2023	06:45-06:59	102	74	176
12/14/2023	07:00-07:14	84	79	163
12/14/2023	07:15-07:29	104	126	230
12/14/2023	07:30-07:44	111	143	254
12/14/2023	07:45-07:59	130	170	300
12/14/2023	08:00-08:14	121	123	244
12/14/2023	08:15-08:29	143	125	268
12/14/2023	08:30-08:44	117	96	213
12/14/2023	08:45-08:59	135	126	261
12/14/2023	09:00-09:14	95	92	187

12/14/2023	09:15-09:29	107	90	197
12/14/2023	09:30-09:44	104	100	204
12/14/2023	09:45-09:59	93	83	176
12/14/2023	10:00-10:14	114	84	198
12/14/2023	10:15-10:29	95	72	167
12/14/2023	10:30-10:44	137	107	244
12/14/2023	10:45-10:59	105	91	196
12/14/2023	11:00-11:14	136	115	251
12/14/2023	11:15-11:29	111	97	208
12/14/2023	11:30-11:44	118	105	223
12/14/2023	11:45-11:59	132	135	267
12/14/2023	12:00-12:14	123	129	252
12/14/2023	12:15-12:29	134	127	261
12/14/2023	12:30-12:44	113	109	222
12/14/2023	12:45-12:59	133	120	253
12/14/2023	13:00-13:14	111	129	240
12/14/2023	13:15-13:29	135	112	247
12/14/2023	13:30-13:44	141	153	294
12/14/2023	13:45-13:59	132	135	267
12/14/2023	14:00-14:14	123	146	269
12/14/2023	14:15-14:29	143	149	292
12/14/2023	14:30-14:44	187	145	332
12/14/2023	14:45-14:59	146	143	289
12/14/2023	15:00-15:14	124	115	239
12/14/2023	15:15-15:29	141	133	274
12/14/2023	15:30-15:44	174	166	340
12/14/2023	15:45-15:59	165	128	293
12/14/2023	16:00-16:14	155	133	288
12/14/2023	16:15-16:29	177	140	317
12/14/2023	16:30-16:44	173	159	332
12/14/2023	16:45-16:59	151	146	297
12/14/2023	17:00-17:14	175	127	302
12/14/2023	17:15-17:29	198	126	324
12/14/2023	17:30-17:44	161	124	285
12/14/2023	17:45-17:59	165	112	277
12/14/2023	18:00-18:14	146	150	296
12/14/2023	18:15-18:29	157	119	276
12/14/2023	18:30-18:44	100	129	229
12/14/2023	18:45-18:59	89	105	194
12/14/2023	19:00-19:14	120	125	245
12/14/2023	19:15-19:29	97	84	181
12/14/2023	19:30-19:44	99	103	202
12/14/2023	19:45-19:59	107	72	179
12/14/2023	20:00-20:14	80	86	166
12/14/2023	20:15-20:29	72	91	163
12/14/2023	20:30-20:44	49	63	112
12/14/2023	20:45-20:59	62	62	124

12/14/2023	21:00-21:14	58	71	129
12/14/2023	21:15-21:29	66	63	129
12/14/2023	21:30-21:44	48	57	105
12/14/2023	21:45-21:59	46	46	92
12/14/2023	22:00-22:14	39	37	76
12/14/2023	22:15-22:29	46	37	83
12/14/2023	22:30-22:44	31	37	68
12/14/2023	22:45-22:59	28	33	61
12/14/2023	23:00-23:14	22	21	43
12/14/2023	23:15-23:29	25	22	47
12/14/2023	23:30-23:44	15	21	36
12/14/2023	23:45-23:59	20	25	45

For CITY OF UPLAND
Location Monte Vista Ave,South of Foothill Blvd
Task ADT&Speed Profile

***** Study Volume	***** Timeslot	SouthBound	NorthBound	Total
12/16/2023	00:00-00:14	12	14	26
12/16/2023	00:15-00:29	19	13	32
12/16/2023	00:30-00:44	18	18	36
12/16/2023	00:45-00:59	15	9	24
12/16/2023	01:00-01:14	21	9	30
12/16/2023	01:15-01:29	8	9	17
12/16/2023	01:30-01:44	10	8	18
12/16/2023	01:45-01:59	13	3	16
12/16/2023	02:00-02:14	9	7	16
12/16/2023	02:15-02:29	7	4	11
12/16/2023	02:30-02:44	11	7	18
12/16/2023	02:45-02:59	17	2	19
12/16/2023	03:00-03:14	11	4	15
12/16/2023	03:15-03:29	7	3	10
12/16/2023	03:30-03:44	11	4	15
12/16/2023	03:45-03:59	6	4	10
12/16/2023	04:00-04:14	14	2	16
12/16/2023	04:15-04:29	12	2	14
12/16/2023	04:30-04:44	18	4	22
12/16/2023	04:45-04:59	21	13	34
12/16/2023	05:00-05:14	16	12	28
12/16/2023	05:15-05:29	7	8	15
12/16/2023	05:30-05:44	22	19	41
12/16/2023	05:45-05:59	15	20	35
12/16/2023	06:00-06:14	18	25	43
12/16/2023	06:15-06:29	34	22	56
12/16/2023	06:30-06:44	22	27	49
12/16/2023	06:45-06:59	30	32	62
12/16/2023	07:00-07:14	41	43	84
12/16/2023	07:15-07:29	46	51	97
12/16/2023	07:30-07:44	46	37	83
12/16/2023	07:45-07:59	52	78	130
12/16/2023	08:00-08:14	53	55	108
12/16/2023	08:15-08:29	63	65	128
12/16/2023	08:30-08:44	71	74	145
12/16/2023	08:45-08:59	71	81	152
12/16/2023	09:00-09:14	102	77	179

12/16/2023	09:15-09:29	115	74	189
12/16/2023	09:30-09:44	106	86	192
12/16/2023	09:45-09:59	111	87	198
12/16/2023	10:00-10:14	109	91	200
12/16/2023	10:15-10:29	112	91	203
12/16/2023	10:30-10:44	138	109	247
12/16/2023	10:45-10:59	111	90	201
12/16/2023	11:00-11:14	116	103	219
12/16/2023	11:15-11:29	118	131	249
12/16/2023	11:30-11:44	113	101	214
12/16/2023	11:45-11:59	171	132	303
12/16/2023	12:00-12:14	152	137	289
12/16/2023	12:15-12:29	139	119	258
12/16/2023	12:30-12:44	136	141	277
12/16/2023	12:45-12:59	135	139	274
12/16/2023	13:00-13:14	126	116	242
12/16/2023	13:15-13:29	133	137	270
12/16/2023	13:30-13:44	129	117	246
12/16/2023	13:45-13:59	142	138	280
12/16/2023	14:00-14:14	116	117	233
12/16/2023	14:15-14:29	130	129	259
12/16/2023	14:30-14:44	120	143	263
12/16/2023	14:45-14:59	133	105	238
12/16/2023	15:00-15:14	196	117	313
12/16/2023	15:15-15:29	122	111	233
12/16/2023	15:30-15:44	118	125	243
12/16/2023	15:45-15:59	124	116	240
12/16/2023	16:00-16:14	119	102	221
12/16/2023	16:15-16:29	132	107	239
12/16/2023	16:30-16:44	120	110	230
12/16/2023	16:45-16:59	120	119	239
12/16/2023	17:00-17:14	126	160	286
12/16/2023	17:15-17:29	114	121	235
12/16/2023	17:30-17:44	97	116	213
12/16/2023	17:45-17:59	80	87	167
12/16/2023	18:00-18:14	104	114	218
12/16/2023	18:15-18:29	90	105	195
12/16/2023	18:30-18:44	93	108	201
12/16/2023	18:45-18:59	91	123	214
12/16/2023	19:00-19:14	84	87	171
12/16/2023	19:15-19:29	68	78	146
12/16/2023	19:30-19:44	71	83	154
12/16/2023	19:45-19:59	66	65	131
12/16/2023	20:00-20:14	69	78	147
12/16/2023	20:15-20:29	63	77	140
12/16/2023	20:30-20:44	56	69	125
12/16/2023	20:45-20:59	69	63	132

12/16/2023	21:00-21:14	50	50	100
12/16/2023	21:15-21:29	57	68	125
12/16/2023	21:30-21:44	40	60	100
12/16/2023	21:45-21:59	64	56	120
12/16/2023	22:00-22:14	45	45	90
12/16/2023	22:15-22:29	52	45	97
12/16/2023	22:30-22:44	54	62	116
12/16/2023	22:45-22:59	40	46	86
12/16/2023	23:00-23:14	43	32	75
12/16/2023	23:15-23:29	26	23	49
12/16/2023	23:30-23:44	22	32	54
12/16/2023	23:45-23:59	34	20	54



For	CITY OF CLAREMONT
Location	Claremont Blvd, Between Arrow Route and Foothill Blvd
Task	ADT Profile

Study Volume

Date	Timeslot	SouthBound	NorthBound	Total
1/25/2024	00:00-00:14	15	10	25
1/25/2024	00:15-00:29	10	5	15
1/25/2024	00:30-00:44	4	4	8
1/25/2024	00:45-00:59	5	6	11
1/25/2024	01:00-01:14	4	4	8
1/25/2024	01:15-01:29	3	10	13
1/25/2024	01:30-01:44	4	2	6
1/25/2024	01:45-01:59	4	2	6
1/25/2024	02:00-02:14	5	6	11
1/25/2024	02:15-02:29	5	4	9
1/25/2024	02:30-02:44	1	3	4
1/25/2024	02:45-02:59	6	3	9
1/25/2024	03:00-03:14	1	0	1
1/25/2024	03:15-03:29	7	4	11
1/25/2024	03:30-03:44	5	2	7
1/25/2024	03:45-03:59	8	1	9
1/25/2024	04:00-04:14	4	0	4
1/25/2024	04:15-04:29	10	0	10
1/25/2024	04:30-04:44	11	9	20
1/25/2024	04:45-04:59	30	5	35
1/25/2024	05:00-05:14	19	13	32
1/25/2024	05:15-05:29	26	12	38
1/25/2024	05:30-05:44	21	26	47
1/25/2024	05:45-05:59	47	42	89
1/25/2024	06:00-06:14	34	56	90
1/25/2024	06:15-06:29	44	45	89
1/25/2024	06:30-06:44	45	50	95
1/25/2024	06:45-06:59	75	59	134
1/25/2024	07:00-07:14	60	71	131
1/25/2024	07:15-07:29	64	105	169
1/25/2024	07:30-07:44	110	106	216
1/25/2024	07:45-07:59	183	126	309

1/25/2024	08:00-08:14	140	141	281
1/25/2024	08:15-08:29	104	119	223
1/25/2024	08:30-08:44	75	119	194
1/25/2024	08:45-08:59	90	73	163
1/25/2024	09:00-09:14	82	70	152
1/25/2024	09:15-09:29	101	74	175
1/25/2024	09:30-09:44	81	76	157
1/25/2024	09:45-09:59	68	75	143
1/25/2024	10:00-10:14	71	84	155
1/25/2024	10:15-10:29	55	63	118
1/25/2024	10:30-10:44	69	61	130
1/25/2024	10:45-10:59	80	66	146
1/25/2024	11:00-11:14	65	76	141
1/25/2024	11:15-11:29	47	65	112
1/25/2024	11:30-11:44	88	72	160
1/25/2024	11:45-11:59	85	84	169
1/25/2024	12:00-12:14	78	106	184
1/25/2024	12:15-12:29	92	91	183
1/25/2024	12:30-12:44	81	84	165
1/25/2024	12:45-12:59	103	80	183
1/25/2024	13:00-13:14	122	89	211
1/25/2024	13:15-13:29	86	101	187
1/25/2024	13:30-13:44	77	78	155
1/25/2024	13:45-13:59	95	94	189
1/25/2024	14:00-14:14	85	99	184
1/25/2024	14:15-14:29	107	100	207
1/25/2024	14:30-14:44	105	143	248
1/25/2024	14:45-14:59	120	126	246
1/25/2024	15:00-15:14	104	118	222
1/25/2024	15:15-15:29	113	122	235
1/25/2024	15:30-15:44	117	115	232
1/25/2024	15:45-15:59	110	141	251
1/25/2024	16:00-16:14	141	129	270
1/25/2024	16:15-16:29	94	114	208
1/25/2024	16:30-16:44	122	137	259
1/25/2024	16:45-16:59	103	117	220
1/25/2024	17:00-17:14	127	169	296
1/25/2024	17:15-17:29	126	136	262
1/25/2024	17:30-17:44	134	133	267
1/25/2024	17:45-17:59	122	131	253
1/25/2024	18:00-18:14	103	105	208
1/25/2024	18:15-18:29	121	109	230
1/25/2024	18:30-18:44	91	88	179
1/25/2024	18:45-18:59	93	83	176
1/25/2024	19:00-19:14	76	88	164
1/25/2024	19:15-19:29	86	64	150
1/25/2024	19:30-19:44	64	67	131

1/25/2024	19:45-19:59	48	57	105
1/25/2024	20:00-20:14	43	74	117
1/25/2024	20:15-20:29	53	56	109
1/25/2024	20:30-20:44	35	44	79
1/25/2024	20:45-20:59	37	58	95
1/25/2024	21:00-21:14	67	45	112
1/25/2024	21:15-21:29	62	47	109
1/25/2024	21:30-21:44	31	37	68
1/25/2024	21:45-21:59	33	38	71
1/25/2024	22:00-22:14	27	44	71
1/25/2024	22:15-22:29	26	29	55
1/25/2024	22:30-22:44	20	24	44
1/25/2024	22:45-22:59	21	27	48
1/25/2024	23:00-23:14	24	29	53
1/25/2024	23:15-23:29	20	17	37
1/25/2024	23:30-23:44	20	18	38
1/25/2024	23:45-23:59	26	23	49

For	CITY OF CLAREMONT
Location	Claremont Blvd, Between Arrow Route and Foothill Blvd
Task	ADT Profile

Study Volume

Date	Timeslot	SouthBound	NorthBound	Total
1/27/2024	00:00-00:14	22	15	37
1/27/2024	00:15-00:29	12	16	28
1/27/2024	00:30-00:44	10	16	26
1/27/2024	00:45-00:59	12	10	22
1/27/2024	01:00-01:14	16	11	27
1/27/2024	01:15-01:29	9	9	18
1/27/2024	01:30-01:44	8	7	15
1/27/2024	01:45-01:59	6	11	17
1/27/2024	02:00-02:14	5	6	11
1/27/2024	02:15-02:29	6	4	10
1/27/2024	02:30-02:44	3	9	12
1/27/2024	02:45-02:59	6	4	10
1/27/2024	03:00-03:14	4	5	9
1/27/2024	03:15-03:29	5	7	12
1/27/2024	03:30-03:44	2	4	6
1/27/2024	03:45-03:59	5	3	8
1/27/2024	04:00-04:14	2	2	4
1/27/2024	04:15-04:29	4	9	13
1/27/2024	04:30-04:44	2	3	5
1/27/2024	04:45-04:59	8	7	15
1/27/2024	05:00-05:14	6	2	8
1/27/2024	05:15-05:29	10	6	16
1/27/2024	05:30-05:44	8	14	22
1/27/2024	05:45-05:59	17	12	29
1/27/2024	06:00-06:14	10	8	18
1/27/2024	06:15-06:29	19	15	34
1/27/2024	06:30-06:44	16	13	29
1/27/2024	06:45-06:59	36	25	61
1/27/2024	07:00-07:14	30	23	53
1/27/2024	07:15-07:29	36	17	53
1/27/2024	07:30-07:44	50	41	91
1/27/2024	07:45-07:59	51	40	91

1/27/2024	08:00-08:14	53	40	93
1/27/2024	08:15-08:29	57	41	98
1/27/2024	08:30-08:44	58	75	133
1/27/2024	08:45-08:59	98	75	173
1/27/2024	09:00-09:14	89	62	151
1/27/2024	09:15-09:29	102	61	163
1/27/2024	09:30-09:44	76	57	133
1/27/2024	09:45-09:59	84	80	164
1/27/2024	10:00-10:14	78	75	153
1/27/2024	10:15-10:29	77	76	153
1/27/2024	10:30-10:44	81	76	157
1/27/2024	10:45-10:59	96	116	212
1/27/2024	11:00-11:14	88	83	171
1/27/2024	11:15-11:29	86	72	158
1/27/2024	11:30-11:44	82	90	172
1/27/2024	11:45-11:59	86	98	184
1/27/2024	12:00-12:14	97	97	194
1/27/2024	12:15-12:29	102	110	212
1/27/2024	12:30-12:44	88	108	196
1/27/2024	12:45-12:59	112	94	206
1/27/2024	13:00-13:14	91	105	196
1/27/2024	13:15-13:29	95	127	222
1/27/2024	13:30-13:44	98	89	187
1/27/2024	13:45-13:59	83	95	178
1/27/2024	14:00-14:14	122	85	207
1/27/2024	14:15-14:29	91	91	182
1/27/2024	14:30-14:44	83	84	167
1/27/2024	14:45-14:59	124	106	230
1/27/2024	15:00-15:14	83	102	185
1/27/2024	15:15-15:29	85	85	170
1/27/2024	15:30-15:44	86	85	171
1/27/2024	15:45-15:59	101	86	187
1/27/2024	16:00-16:14	89	92	181
1/27/2024	16:15-16:29	63	95	158
1/27/2024	16:30-16:44	85	83	168
1/27/2024	16:45-16:59	90	108	198
1/27/2024	17:00-17:14	97	105	202
1/27/2024	17:15-17:29	88	81	169
1/27/2024	17:30-17:44	82	79	161
1/27/2024	17:45-17:59	82	77	159
1/27/2024	18:00-18:14	73	83	156
1/27/2024	18:15-18:29	79	73	152
1/27/2024	18:30-18:44	69	59	128
1/27/2024	18:45-18:59	53	63	116
1/27/2024	19:00-19:14	77	62	139
1/27/2024	19:15-19:29	72	68	140
1/27/2024	19:30-19:44	76	54	130

1/27/2024	19:45-19:59	78	57	135
1/27/2024	20:00-20:14	63	50	113
1/27/2024	20:15-20:29	64	49	113
1/27/2024	20:30-20:44	41	46	87
1/27/2024	20:45-20:59	48	38	86
1/27/2024	21:00-21:14	39	35	74
1/27/2024	21:15-21:29	60	48	108
1/27/2024	21:30-21:44	39	40	79
1/27/2024	21:45-21:59	38	45	83
1/27/2024	22:00-22:14	29	45	74
1/27/2024	22:15-22:29	38	38	76
1/27/2024	22:30-22:44	27	28	55
1/27/2024	22:45-22:59	29	43	72
1/27/2024	23:00-23:14	28	26	54
1/27/2024	23:15-23:29	19	18	37
1/27/2024	23:30-23:44	22	17	39
1/27/2024	23:45-23:59	17	16	33

For CITY OF CLAREMONT
Location Arrow Route, Between College Park Dr and Monte Vista Ave
Task ADT Profile

Study Volume

Date	Timeslot	EastBound	WestBound	Total
1/25/2024	00:00-00:14	5	4	9
1/25/2024	00:15-00:29	5	3	8
1/25/2024	00:30-00:44	2	1	3
1/25/2024	00:45-00:59	3	2	5
1/25/2024	01:00-01:14	3	2	5
1/25/2024	01:15-01:29	6	1	7
1/25/2024	01:30-01:44	4	2	6
1/25/2024	01:45-01:59	4	3	7
1/25/2024	02:00-02:14	3	3	6
1/25/2024	02:15-02:29	0	4	4
1/25/2024	02:30-02:44	0	0	0
1/25/2024	02:45-02:59	1	0	1
1/25/2024	03:00-03:14	1	0	1
1/25/2024	03:15-03:29	0	0	0
1/25/2024	03:30-03:44	0	4	4
1/25/2024	03:45-03:59	3	4	7
1/25/2024	04:00-04:14	0	4	4
1/25/2024	04:15-04:29	2	2	4
1/25/2024	04:30-04:44	8	5	13
1/25/2024	04:45-04:59	1	8	9
1/25/2024	05:00-05:14	4	1	5
1/25/2024	05:15-05:29	6	8	14
1/25/2024	05:30-05:44	6	14	20
1/25/2024	05:45-05:59	7	21	28
1/25/2024	06:00-06:14	16	15	31
1/25/2024	06:15-06:29	12	25	37
1/25/2024	06:30-06:44	14	35	49
1/25/2024	06:45-06:59	22	47	69
1/25/2024	07:00-07:14	14	31	45
1/25/2024	07:15-07:29	32	36	68
1/25/2024	07:30-07:44	35	45	80
1/25/2024	07:45-07:59	42	61	103

1/25/2024	08:00-08:14	42	45	87
1/25/2024	08:15-08:29	50	47	97
1/25/2024	08:30-08:44	23	39	62
1/25/2024	08:45-08:59	34	53	87
1/25/2024	09:00-09:14	28	46	74
1/25/2024	09:15-09:29	28	35	63
1/25/2024	09:30-09:44	30	34	64
1/25/2024	09:45-09:59	25	36	61
1/25/2024	10:00-10:14	38	34	72
1/25/2024	10:15-10:29	24	28	52
1/25/2024	10:30-10:44	35	28	63
1/25/2024	10:45-10:59	32	39	71
1/25/2024	11:00-11:14	37	32	69
1/25/2024	11:15-11:29	46	31	77
1/25/2024	11:30-11:44	33	41	74
1/25/2024	11:45-11:59	39	37	76
1/25/2024	12:00-12:14	62	56	118
1/25/2024	12:15-12:29	48	39	87
1/25/2024	12:30-12:44	53	40	93
1/25/2024	12:45-12:59	56	38	94
1/25/2024	13:00-13:14	36	34	70
1/25/2024	13:15-13:29	63	36	99
1/25/2024	13:30-13:44	46	35	81
1/25/2024	13:45-13:59	49	48	97
1/25/2024	14:00-14:14	49	40	89
1/25/2024	14:15-14:29	69	41	110
1/25/2024	14:30-14:44	77	35	112
1/25/2024	14:45-14:59	59	43	102
1/25/2024	15:00-15:14	66	44	110
1/25/2024	15:15-15:29	72	39	111
1/25/2024	15:30-15:44	86	53	139
1/25/2024	15:45-15:59	82	44	126
1/25/2024	16:00-16:14	72	40	112
1/25/2024	16:15-16:29	82	37	119
1/25/2024	16:30-16:44	86	54	140
1/25/2024	16:45-16:59	90	52	142
1/25/2024	17:00-17:14	115	50	165
1/25/2024	17:15-17:29	97	57	154
1/25/2024	17:30-17:44	72	38	110
1/25/2024	17:45-17:59	79	44	123
1/25/2024	18:00-18:14	69	49	118
1/25/2024	18:15-18:29	73	45	118
1/25/2024	18:30-18:44	59	29	88
1/25/2024	18:45-18:59	45	40	85
1/25/2024	19:00-19:14	38	23	61
1/25/2024	19:15-19:29	33	19	52
1/25/2024	19:30-19:44	33	29	62

1/25/2024	19:45-19:59	40	18	58
1/25/2024	20:00-20:14	30	25	55
1/25/2024	20:15-20:29	28	14	42
1/25/2024	20:30-20:44	26	14	40
1/25/2024	20:45-20:59	28	17	45
1/25/2024	21:00-21:14	19	17	36
1/25/2024	21:15-21:29	31	18	49
1/25/2024	21:30-21:44	23	27	50
1/25/2024	21:45-21:59	17	12	29
1/25/2024	22:00-22:14	27	18	45
1/25/2024	22:15-22:29	26	15	41
1/25/2024	22:30-22:44	18	14	32
1/25/2024	22:45-22:59	12	9	21
1/25/2024	23:00-23:14	19	9	28
1/25/2024	23:15-23:29	14	10	24
1/25/2024	23:30-23:44	13	9	22
1/25/2024	23:45-23:59	15	14	29
1/27/2024	00:00-00:14	19	5	24
1/27/2024	00:15-00:29	10	5	15
1/27/2024	00:30-00:44	11	6	17
1/27/2024	00:45-00:59	12	5	17
1/27/2024	01:00-01:14	11	4	15
1/27/2024	01:15-01:29	5	4	9
1/27/2024	01:30-01:44	7	7	14
1/27/2024	01:45-01:59	4	1	5
1/27/2024	02:00-02:14	3	4	7
1/27/2024	02:15-02:29	4	4	8
1/27/2024	02:30-02:44	5	8	13
1/27/2024	02:45-02:59	0	1	1
1/27/2024	03:00-03:14	3	0	3
1/27/2024	03:15-03:29	2	1	3
1/27/2024	03:30-03:44	6	3	9
1/27/2024	03:45-03:59	1	0	1
1/27/2024	04:00-04:14	1	1	2
1/27/2024	04:15-04:29	0	1	1
1/27/2024	04:30-04:44	2	0	2
1/27/2024	04:45-04:59	2	3	5
1/27/2024	05:00-05:14	1	2	3
1/27/2024	05:15-05:29	5	3	8
1/27/2024	05:30-05:44	1	4	5
1/27/2024	05:45-05:59	4	12	16
1/27/2024	06:00-06:14	4	2	6
1/27/2024	06:15-06:29	8	7	15
1/27/2024	06:30-06:44	4	9	13
1/27/2024	06:45-06:59	7	20	27
1/27/2024	07:00-07:14	12	17	29
1/27/2024	07:15-07:29	12	12	24

1/27/2024	07:30-07:44	13	22	35
1/27/2024	07:45-07:59	20	16	36
1/27/2024	08:00-08:14	16	16	32
1/27/2024	08:15-08:29	23	21	44
1/27/2024	08:30-08:44	26	18	44
1/27/2024	08:45-08:59	33	29	62
1/27/2024	09:00-09:14	37	37	74
1/27/2024	09:15-09:29	39	31	70
1/27/2024	09:30-09:44	32	53	85
1/27/2024	09:45-09:59	52	51	103
1/27/2024	10:00-10:14	45	39	84
1/27/2024	10:15-10:29	41	45	86
1/27/2024	10:30-10:44	38	46	84
1/27/2024	10:45-10:59	51	47	98
1/27/2024	11:00-11:14	57	40	97
1/27/2024	11:15-11:29	57	47	104
1/27/2024	11:30-11:44	66	55	121
1/27/2024	11:45-11:59	61	44	105
1/27/2024	12:00-12:14	52	40	92
1/27/2024	12:15-12:29	54	55	109
1/27/2024	12:30-12:44	42	61	103
1/27/2024	12:45-12:59	60	52	112
1/27/2024	13:00-13:14	54	48	102
1/27/2024	13:15-13:29	66	46	112
1/27/2024	13:30-13:44	59	58	117
1/27/2024	13:45-13:59	48	40	88
1/27/2024	14:00-14:14	71	52	123
1/27/2024	14:15-14:29	74	39	113
1/27/2024	14:30-14:44	61	50	111
1/27/2024	14:45-14:59	85	55	140
1/27/2024	15:00-15:14	75	48	123
1/27/2024	15:15-15:29	68	50	118
1/27/2024	15:30-15:44	72	38	110
1/27/2024	15:45-15:59	69	54	123
1/27/2024	16:00-16:14	67	40	107
1/27/2024	16:15-16:29	70	51	121
1/27/2024	16:30-16:44	66	46	112
1/27/2024	16:45-16:59	53	36	89
1/27/2024	17:00-17:14	77	42	119
1/27/2024	17:15-17:29	73	37	110
1/27/2024	17:30-17:44	46	51	97
1/27/2024	17:45-17:59	63	37	100
1/27/2024	18:00-18:14	61	45	106
1/27/2024	18:15-18:29	62	37	99
1/27/2024	18:30-18:44	57	43	100
1/27/2024	18:45-18:59	57	39	96
1/27/2024	19:00-19:14	34	37	71

1/27/2024	19:15-19:29	43	38	81
1/27/2024	19:30-19:44	34	30	64
1/27/2024	19:45-19:59	39	22	61
1/27/2024	20:00-20:14	40	33	73
1/27/2024	20:15-20:29	41	25	66
1/27/2024	20:30-20:44	31	22	53
1/27/2024	20:45-20:59	39	24	63
1/27/2024	21:00-21:14	32	22	54
1/27/2024	21:15-21:29	33	21	54
1/27/2024	21:30-21:44	23	25	48
1/27/2024	21:45-21:59	28	18	46
1/27/2024	22:00-22:14	32	20	52
1/27/2024	22:15-22:29	31	7	38
1/27/2024	22:30-22:44	18	19	37
1/27/2024	22:45-22:59	13	8	21
1/27/2024	23:00-23:14	15	15	30
1/27/2024	23:15-23:29	17	15	32
1/27/2024	23:30-23:44	14	8	22
1/27/2024	23:45-23:59	16	8	24



For CITY OF CLAREMONT
Location Arrow Route, Between College Park Dr and Monte Vista Ave
Task ADT Profile

Study Volume

Date	Timeslot	EastBound	WestBound	Total
1/27/2024	00:00-00:14	19	5	24
1/27/2024	00:15-00:29	10	5	15
1/27/2024	00:30-00:44	11	6	17
1/27/2024	00:45-00:59	12	5	17
1/27/2024	01:00-01:14	11	4	15
1/27/2024	01:15-01:29	5	4	9
1/27/2024	01:30-01:44	7	7	14
1/27/2024	01:45-01:59	4	1	5
1/27/2024	02:00-02:14	3	4	7
1/27/2024	02:15-02:29	4	4	8
1/27/2024	02:30-02:44	5	8	13
1/27/2024	02:45-02:59	0	1	1
1/27/2024	03:00-03:14	3	0	3
1/27/2024	03:15-03:29	2	1	3
1/27/2024	03:30-03:44	6	3	9
1/27/2024	03:45-03:59	1	0	1
1/27/2024	04:00-04:14	1	1	2
1/27/2024	04:15-04:29	0	1	1
1/27/2024	04:30-04:44	2	0	2
1/27/2024	04:45-04:59	2	3	5
1/27/2024	05:00-05:14	1	2	3
1/27/2024	05:15-05:29	5	3	8
1/27/2024	05:30-05:44	1	4	5
1/27/2024	05:45-05:59	4	12	16
1/27/2024	06:00-06:14	4	2	6
1/27/2024	06:15-06:29	8	7	15
1/27/2024	06:30-06:44	4	9	13
1/27/2024	06:45-06:59	7	20	27
1/27/2024	07:00-07:14	12	17	29
1/27/2024	07:15-07:29	12	12	24
1/27/2024	07:30-07:44	13	22	35
1/27/2024	07:45-07:59	20	16	36

1/27/2024	08:00-08:14	16	16	32
1/27/2024	08:15-08:29	23	21	44
1/27/2024	08:30-08:44	26	18	44
1/27/2024	08:45-08:59	33	29	62
1/27/2024	09:00-09:14	37	37	74
1/27/2024	09:15-09:29	39	31	70
1/27/2024	09:30-09:44	32	53	85
1/27/2024	09:45-09:59	52	51	103
1/27/2024	10:00-10:14	45	39	84
1/27/2024	10:15-10:29	41	45	86
1/27/2024	10:30-10:44	38	46	84
1/27/2024	10:45-10:59	51	47	98
1/27/2024	11:00-11:14	57	40	97
1/27/2024	11:15-11:29	57	47	104
1/27/2024	11:30-11:44	66	55	121
1/27/2024	11:45-11:59	61	44	105
1/27/2024	12:00-12:14	52	40	92
1/27/2024	12:15-12:29	54	55	109
1/27/2024	12:30-12:44	42	61	103
1/27/2024	12:45-12:59	60	52	112
1/27/2024	13:00-13:14	54	48	102
1/27/2024	13:15-13:29	66	46	112
1/27/2024	13:30-13:44	59	58	117
1/27/2024	13:45-13:59	48	40	88
1/27/2024	14:00-14:14	71	52	123
1/27/2024	14:15-14:29	74	39	113
1/27/2024	14:30-14:44	61	50	111
1/27/2024	14:45-14:59	85	55	140
1/27/2024	15:00-15:14	75	48	123
1/27/2024	15:15-15:29	68	50	118
1/27/2024	15:30-15:44	72	38	110
1/27/2024	15:45-15:59	69	54	123
1/27/2024	16:00-16:14	67	40	107
1/27/2024	16:15-16:29	70	51	121
1/27/2024	16:30-16:44	66	46	112
1/27/2024	16:45-16:59	53	36	89
1/27/2024	17:00-17:14	77	42	119
1/27/2024	17:15-17:29	73	37	110
1/27/2024	17:30-17:44	46	51	97
1/27/2024	17:45-17:59	63	37	100
1/27/2024	18:00-18:14	61	45	106
1/27/2024	18:15-18:29	62	37	99
1/27/2024	18:30-18:44	57	43	100
1/27/2024	18:45-18:59	57	39	96
1/27/2024	19:00-19:14	34	37	71
1/27/2024	19:15-19:29	43	38	81
1/27/2024	19:30-19:44	34	30	64

1/27/2024	19:45-19:59	39	22	61
1/27/2024	20:00-20:14	40	33	73
1/27/2024	20:15-20:29	41	25	66
1/27/2024	20:30-20:44	31	22	53
1/27/2024	20:45-20:59	39	24	63
1/27/2024	21:00-21:14	32	22	54
1/27/2024	21:15-21:29	33	21	54
1/27/2024	21:30-21:44	23	25	48
1/27/2024	21:45-21:59	28	18	46
1/27/2024	22:00-22:14	32	20	52
1/27/2024	22:15-22:29	31	7	38
1/27/2024	22:30-22:44	18	19	37
1/27/2024	22:45-22:59	13	8	21
1/27/2024	23:00-23:14	15	15	30
1/27/2024	23:15-23:29	17	15	32
1/27/2024	23:30-23:44	14	8	22
1/27/2024	23:45-23:59	16	8	24

For	CITY OF CLAREMONT
Location	Huntington Dr, East of Claremont Blvd
Task	ADT Profile

Study Volume

Date	Timeslot	EastBound	WestBound	Total
1/25/2024	00:00-00:14	0	0	0
1/25/2024	00:15-00:29	0	0	0
1/25/2024	00:30-00:44	0	0	0
1/25/2024	00:45-00:59	0	1	1
1/25/2024	01:00-01:14	0	0	0
1/25/2024	01:15-01:29	0	0	0
1/25/2024	01:30-01:44	0	0	0
1/25/2024	01:45-01:59	0	0	0
1/25/2024	02:00-02:14	1	0	1
1/25/2024	02:15-02:29	1	2	3
1/25/2024	02:30-02:44	0	0	0
1/25/2024	02:45-02:59	0	0	0
1/25/2024	03:00-03:14	0	1	1
1/25/2024	03:15-03:29	0	0	0
1/25/2024	03:30-03:44	0	0	0
1/25/2024	03:45-03:59	0	0	0
1/25/2024	04:00-04:14	0	0	0
1/25/2024	04:15-04:29	0	1	1
1/25/2024	04:30-04:44	1	1	2
1/25/2024	04:45-04:59	0	0	0
1/25/2024	05:00-05:14	0	0	0
1/25/2024	05:15-05:29	0	0	0
1/25/2024	05:30-05:44	0	2	2
1/25/2024	05:45-05:59	1	4	5
1/25/2024	06:00-06:14	1	1	2
1/25/2024	06:15-06:29	0	3	3
1/25/2024	06:30-06:44	0	0	0
1/25/2024	06:45-06:59	0	0	0
1/25/2024	07:00-07:14	2	0	2
1/25/2024	07:15-07:29	2	3	5
1/25/2024	07:30-07:44	2	3	5
1/25/2024	07:45-07:59	0	0	0

1/25/2024	08:00-08:14	1	3	4
1/25/2024	08:15-08:29	2	6	8
1/25/2024	08:30-08:44	2	1	3
1/25/2024	08:45-08:59	3	2	5
1/25/2024	09:00-09:14	1	4	5
1/25/2024	09:15-09:29	2	1	3
1/25/2024	09:30-09:44	2	2	4
1/25/2024	09:45-09:59	1	3	4
1/25/2024	10:00-10:14	2	1	3
1/25/2024	10:15-10:29	0	0	0
1/25/2024	10:30-10:44	3	3	6
1/25/2024	10:45-10:59	1	1	2
1/25/2024	11:00-11:14	3	4	7
1/25/2024	11:15-11:29	2	2	4
1/25/2024	11:30-11:44	3	1	4
1/25/2024	11:45-11:59	2	7	9
1/25/2024	12:00-12:14	1	3	4
1/25/2024	12:15-12:29	2	1	3
1/25/2024	12:30-12:44	0	2	2
1/25/2024	12:45-12:59	1	2	3
1/25/2024	13:00-13:14	2	3	5
1/25/2024	13:15-13:29	2	1	3
1/25/2024	13:30-13:44	2	0	2
1/25/2024	13:45-13:59	2	0	2
1/25/2024	14:00-14:14	1	2	3
1/25/2024	14:15-14:29	6	2	8
1/25/2024	14:30-14:44	6	5	11
1/25/2024	14:45-14:59	3	3	6
1/25/2024	15:00-15:14	2	3	5
1/25/2024	15:15-15:29	2	4	6
1/25/2024	15:30-15:44	1	0	1
1/25/2024	15:45-15:59	2	5	7
1/25/2024	16:00-16:14	1	0	1
1/25/2024	16:15-16:29	4	2	6
1/25/2024	16:30-16:44	3	4	7
1/25/2024	16:45-16:59	1	6	7
1/25/2024	17:00-17:14	1	3	4
1/25/2024	17:15-17:29	5	1	6
1/25/2024	17:30-17:44	1	1	2
1/25/2024	17:45-17:59	1	1	2
1/25/2024	18:00-18:14	2	3	5
1/25/2024	18:15-18:29	1	1	2
1/25/2024	18:30-18:44	1	2	3
1/25/2024	18:45-18:59	0	0	0
1/25/2024	19:00-19:14	1	1	2
1/25/2024	19:15-19:29	3	2	5
1/25/2024	19:30-19:44	3	1	4

1/25/2024	19:45-19:59	0	1	1
1/25/2024	20:00-20:14	1	0	1
1/25/2024	20:15-20:29	4	2	6
1/25/2024	20:30-20:44	1	0	1
1/25/2024	20:45-20:59	0	2	2
1/25/2024	21:00-21:14	1	0	1
1/25/2024	21:15-21:29	1	2	3
1/25/2024	21:30-21:44	2	0	2
1/25/2024	21:45-21:59	3	3	6
1/25/2024	22:00-22:14	1	0	1
1/25/2024	22:15-22:29	0	1	1
1/25/2024	22:30-22:44	1	0	1
1/25/2024	22:45-22:59	0	0	0
1/25/2024	23:00-23:14	1	1	2
1/25/2024	23:15-23:29	0	0	0
1/25/2024	23:30-23:44	0	0	0
1/25/2024	23:45-23:59	0	0	0

For CITY OF CLAREMONT
Location Huntington Dr, East of Claremont Blvd
Task ADT Profile

Study Volume

Date	Timeslot	EastBound	WestBound	Total
1/27/2024	00:00-00:14	0	0	0
1/27/2024	00:15-00:29	1	0	1
1/27/2024	00:30-00:44	3	0	3
1/27/2024	00:45-00:59	1	1	2
1/27/2024	01:00-01:14	0	0	0
1/27/2024	01:15-01:29	1	0	1
1/27/2024	01:30-01:44	0	1	1
1/27/2024	01:45-01:59	0	1	1
1/27/2024	02:00-02:14	0	0	0
1/27/2024	02:15-02:29	0	0	0
1/27/2024	02:30-02:44	0	0	0
1/27/2024	02:45-02:59	0	1	1
1/27/2024	03:00-03:14	0	0	0
1/27/2024	03:15-03:29	0	0	0
1/27/2024	03:30-03:44	0	0	0
1/27/2024	03:45-03:59	0	0	0
1/27/2024	04:00-04:14	0	0	0
1/27/2024	04:15-04:29	0	0	0
1/27/2024	04:30-04:44	0	0	0
1/27/2024	04:45-04:59	0	0	0
1/27/2024	05:00-05:14	0	0	0
1/27/2024	05:15-05:29	1	0	1
1/27/2024	05:30-05:44	1	0	1
1/27/2024	05:45-05:59	0	0	0
1/27/2024	06:00-06:14	1	0	1
1/27/2024	06:15-06:29	1	2	3
1/27/2024	06:30-06:44	1	2	3
1/27/2024	06:45-06:59	1	1	2
1/27/2024	07:00-07:14	1	1	2
1/27/2024	07:15-07:29	0	1	1
1/27/2024	07:30-07:44	1	2	3
1/27/2024	07:45-07:59	0	1	1

1/27/2024	08:00-08:14	1	4	5
1/27/2024	08:15-08:29	2	3	5
1/27/2024	08:30-08:44	3	2	5
1/27/2024	08:45-08:59	0	0	0
1/27/2024	09:00-09:14	1	1	2
1/27/2024	09:15-09:29	1	2	3
1/27/2024	09:30-09:44	4	0	4
1/27/2024	09:45-09:59	4	2	6
1/27/2024	10:00-10:14	7	9	16
1/27/2024	10:15-10:29	3	3	6
1/27/2024	10:30-10:44	1	2	3
1/27/2024	10:45-10:59	2	2	4
1/27/2024	11:00-11:14	1	3	4
1/27/2024	11:15-11:29	5	5	10
1/27/2024	11:30-11:44	5	5	10
1/27/2024	11:45-11:59	3	0	3
1/27/2024	12:00-12:14	1	3	4
1/27/2024	12:15-12:29	1	3	4
1/27/2024	12:30-12:44	3	2	5
1/27/2024	12:45-12:59	2	1	3
1/27/2024	13:00-13:14	1	1	2
1/27/2024	13:15-13:29	3	0	3
1/27/2024	13:30-13:44	0	2	2
1/27/2024	13:45-13:59	1	5	6
1/27/2024	14:00-14:14	3	3	6
1/27/2024	14:15-14:29	1	2	3
1/27/2024	14:30-14:44	0	1	1
1/27/2024	14:45-14:59	0	5	5
1/27/2024	15:00-15:14	4	6	10
1/27/2024	15:15-15:29	3	0	3
1/27/2024	15:30-15:44	3	5	8
1/27/2024	15:45-15:59	3	2	5
1/27/2024	16:00-16:14	3	3	6
1/27/2024	16:15-16:29	1	2	3
1/27/2024	16:30-16:44	5	3	8
1/27/2024	16:45-16:59	6	3	9
1/27/2024	17:00-17:14	4	0	4
1/27/2024	17:15-17:29	2	3	5
1/27/2024	17:30-17:44	5	2	7
1/27/2024	17:45-17:59	1	1	2
1/27/2024	18:00-18:14	0	0	0
1/27/2024	18:15-18:29	2	3	5
1/27/2024	18:30-18:44	2	5	7
1/27/2024	18:45-18:59	5	3	8
1/27/2024	19:00-19:14	3	1	4
1/27/2024	19:15-19:29	7	2	9
1/27/2024	19:30-19:44	7	6	13

1/27/2024	19:45-19:59	5	4	9
1/27/2024	20:00-20:14	2	0	2
1/27/2024	20:15-20:29	2	1	3
1/27/2024	20:30-20:44	0	1	1
1/27/2024	20:45-20:59	1	1	2
1/27/2024	21:00-21:14	1	1	2
1/27/2024	21:15-21:29	2	1	3
1/27/2024	21:30-21:44	2	3	5
1/27/2024	21:45-21:59	0	1	1
1/27/2024	22:00-22:14	3	5	8
1/27/2024	22:15-22:29	0	6	6
1/27/2024	22:30-22:44	0	2	2
1/27/2024	22:45-22:59	2	4	6
1/27/2024	23:00-23:14	1	1	2
1/27/2024	23:15-23:29	1	1	2
1/27/2024	23:30-23:44	1	0	1
1/27/2024	23:45-23:59	0	3	3

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, April 13, 2023
JOB #: SC3943

CITY# Claremont
CLASS1 6th west of Mills

AM TIME	COMBINED													TOTAL	PM Time	COMBINED													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	12	0	0	1	0	0	0	0	0	0	0	0	13	12:00	0	63	7	0	3	1	0	0	0	0	0	74		
0:15	0	9	0	0	0	0	0	0	0	0	0	0	0	9	12:15	0	48	16	0	3	0	0	0	0	0	0	67		
0:30	0	10	0	0	1	0	0	0	0	0	0	0	0	11	12:30	0	85	11	0	2	0	0	0	0	0	0	98		
0:45	0	12	0	0	1	0	0	0	0	0	0	0	0	13	12:45	0	78	7	0	4	0	0	0	0	0	0	89		
1:00	0	10	0	0	0	0	0	0	0	0	0	0	0	10	13:00	0	101	14	0	5	0	0	0	0	0	0	120		
1:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7	13:15	0	67	8	0	2	0	0	0	0	0	0	77		
1:30	0	7	0	0	0	0	0	0	0	0	0	0	0	7	13:30	0	66	8	0	3	0	0	0	0	0	0	77		
1:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3	13:45	0	64	7	0	2	0	0	0	0	0	0	73		
2:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3	14:00	0	67	6	1	6	0	0	0	0	0	0	80		
2:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	14:15	0	81	5	0	6	0	0	0	0	0	0	92		
2:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	14:30	0	78	10	0	2	0	0	0	0	0	0	90		
2:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	14:45	0	76	10	0	4	0	0	0	0	0	0	90		
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:00	0	54	9	0	4	0	0	0	0	0	0	67		
3:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15:15	0	89	10	0	6	0	0	0	0	0	0	105		
3:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15:30	0	55	17	0	4	0	0	0	0	0	0	76		
3:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	15:45	0	93	12	0	4	0	0	0	0	0	0	109		
4:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16:00	0	97	8	1	1	0	0	0	0	0	0	107		
4:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16:15	0	113	11	0	4	0	0	0	0	0	0	128		
4:30	0	1	1	0	1	0	0	0	0	0	0	0	0	3	16:30	0	106	6	0	2	0	0	0	0	0	0	114		
4:45	0	6	1	0	0	1	0	0	0	0	0	0	0	8	16:45	0	95	6	0	3	0	0	0	0	0	0	104		
5:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5	17:00	0	131	6	0	3	0	0	0	0	0	0	140		
5:15	0	20	1	0	0	0	0	0	0	0	0	0	0	21	17:15	0	101	7	0	1	0	0	0	0	0	0	109		
5:30	0	11	5	0	3	1	0	0	0	0	0	0	0	20	17:30	0	89	7	0	4	0	0	0	0	0	0	100		
5:45	0	20	2	0	4	0	0	0	0	0	0	0	0	26	17:45	0	82	8	0	4	0	0	0	0	0	0	94		
6:00	0	12	1	0	1	1	0	0	0	0	0	0	0	15	18:00	0	102	6	0	4	0	0	0	0	0	0	112		
6:15	0	11	1	0	2	0	0	0	0	0	0	0	0	14	18:15	0	89	4	0	0	0	0	0	0	0	0	93		
6:30	0	16	3	0	4	0	0	0	0	0	0	0	0	23	18:30	0	85	2	0	3	0	0	0	0	0	0	90		
6:45	0	21	6	0	3	0	0	0	0	0	0	0	0	30	18:45	0	67	4	0	1	0	0	0	0	0	0	72		
7:00	0	32	5	0	3	0	0	0	0	0	0	0	0	40	19:00	1	66	2	0	3	0	0	0	0	0	0	72		
7:15	0	30	7	0	2	0	0	0	0	0	0	0	0	39	19:15	0	55	4	0	0	0	0	0	0	0	0	59		
7:30	0	39	6	0	4	0	0	0	0	0	0	0	0	49	19:30	0	56	2	0	1	0	0	0	0	0	0	59		
7:45	0	72	8	0	4	0	0	0	1	0	0	0	0	85	19:45	0	47	3	0	2	0	0	0	0	0	0	52		
8:00	0	69	6	0	6	0	0	0	0	0	0	0	0	81	20:00	0	39	3	0	3	0	0	0	0	0	0	45		
8:15	0	52	6	0	3	0	0	0	0	0	0	0	0	61	20:15	0	53	1	0	3	0	0	0	0	0	0	57		
8:30	0	54	6	0	5	0	0	0	0	0	0	0	0	65	20:30	0	38	5	0	1	0	0	0	0	0	0	44		
8:45	0	52	7	0	6	1	0	0	0	0	0	0	0	66	20:45	0	45	2	0	1	0	0	0	0	0	0	48		
9:00	0	46	5	0	4	0	0	0	0	0	0	0	0	55	21:00	0	55	1	0	2	0	0	0	0	0	0	58		
9:15	0	51	10	0	5	0	0	0	0	0	0	0	0	66	21:15	0	64	1	0	1	0	0	0	0	0	0	66		
9:30	0	52	8	0	5	0	0	1	0	0	0	0	0	66	21:30	0	44	1	0	1	0	0	0	0	0	0	46		
9:45	0	58	11	0	6	0	0	0	0	0	0	0	0	75	21:45	0	29	0	0	2	0	0	0	0	0	0	31		
10:00	0	54	10	0	6	0	0	0	0	0	0	0	0	70	22:00	0	29	0	0	2	0	0	0	0	0	0	31		
10:15	0	32	9	0	6	0	0	0	0	0	0	0	0	47	22:15	0	23	1	0	1	0	0	0	0	0	0	25		
10:30	2	39	8	0	5	0	0	0	0	0	0	0	0	54	22:30	0	27	1	0	1	0	0	0	0	0	0	29		
10:45	0	62	7	0	1	0	0	0	0	0	0	0	0	70	22:45	0	24	0	0	2	0	0	0	0	0	0	26		
11:00	0	47	14	0	6	0	0	0	0	0	0	0	0	67	23:00	0	24	2	0	2	0	0	0	0	0	0	28		
11:15	0	50	9	0	4	0	0	0	0	0	0	0	0	63	23:15	0	22	1	0	0	0	0	0	0	0	0	23		
11:30	0	57	8	0	3	1	0	0	0	0	0	0	0	69	23:30	0	15	1	0	2	0	0	0	0	0	0	18		
11:45	0	56	11	0	5	0	0	0	0	0	0	0	0	72	23:45	0	13	0	0	1	0	0	0	0	0	0	14		
TOTAL	2	1,218	183	0	110	5	0	1	1	0	0	0	0	1,520	TOTAL	1	3,090	263	2	121	1	0	0	0	0	0	3,478		

AM PEAK HOUR 7:45 AM
AM PEAK VOLUME 292

PM PEAK HOUR 4:15 PM
PM PEAK VOLUME 486

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	3	4,308	446	2	231	6	0	1	1	0	0	0	0	4,998
% OF TOTAL	0.1%	86.2%	8.9%	0.0%	4.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13
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24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Saturday, April 15, 2023
JOB #: SC3943

CITY# Claremont
CLASS1 6th west of Mills_SAT

AM TIME	COMBINED													TOTAL	PM Time	COMBINED													TOTAL						
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13							
0:00	0	13	0	0	0	0	0	0	0	0	0	0	0	13	12:00	0	69	9	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82
0:15	0	16	0	0	2	0	0	0	0	0	0	0	0	18	12:15	0	76	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	84	
0:30	0	10	0	0	1	0	0	0	0	0	0	0	0	11	12:30	0	72	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	79	
0:45	0	18	2	0	1	0	0	0	0	0	0	0	0	21	12:45	0	68	10	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	82	
1:00	0	20	0	0	1	0	0	0	0	0	0	0	0	21	13:00	0	76	9	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	87	
1:15	0	21	3	0	1	0	0	0	0	0	0	0	0	25	13:15	1	77	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	87	
1:30	0	14	0	0	0	0	0	0	0	0	0	0	0	14	13:30	0	69	4	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	76	
1:45	0	12	1	0	2	0	0	0	0	0	0	0	0	15	13:45	0	76	7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85
2:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11	14:00	0	73	7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82
2:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7	14:15	1	76	4	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84
2:30	0	8	0	0	0	0	0	0	0	0	0	0	0	8	14:30	0	69	9	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80
2:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3	14:45	0	85	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93
3:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15:00	0	66	7	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78
3:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4	15:15	0	64	4	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71
3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:30	1	67	8	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81
3:45	0	6	0	0	0	0	0	0	0	0	0	0	0	6	15:45	0	56	10	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16:00	0	75	7	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85
4:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16:15	0	58	10	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71
4:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16:30	0	57	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
4:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16:45	1	60	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
5:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3	17:00	0	57	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
5:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6	17:15	1	53	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
5:30	0	10	0	0	0	0	0	0	0	0	0	0	0	10	17:30	0	60	4	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69
5:45	0	13	0	0	0	0	0	0	0	0	0	0	0	13	17:45	0	61	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
6:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7	18:00	0	68	4	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76
6:15	0	6	1	0	0	0	0	0	0	0	0	0	0	7	18:15	0	52	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
6:30	0	10	1	0	0	0	0	0	0	0	0	0	0	11	18:30	0	62	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
6:45	0	11	1	0	0	0	0	0	0	0	0	0	0	12	18:45	1	70	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73
7:00	0	11	2	0	2	0	0	0	0	0	0	0	0	15	19:00	0	54	5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
7:15	0	8	2	0	0	0	0	0	0	0	0	0	0	10	19:15	0	56	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
7:30	0	17	3	0	3	0	0	0	0	0	0	0	0	23	19:30	1	50	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
7:45	0	24	5	0	0	0	0	0	0	0	0	0	0	29	19:45	0	54	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
8:00	0	27	4	0	1	0	0	0	0	0	0	0	0	32	20:00	0	45	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
8:15	0	22	3	1	1	0	0	0	0	0	0	0	0	27	20:15	0	39	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
8:30	0	35	2	3	1	0	0	0	0	0	0	0	0	41	20:30	0	48	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
8:45	0	44	7	0	2	0	0	0	0	0	0	0	0	53	20:45	1	54	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
9:00	1	37	6	0	1	0	0	0	0	0	0	0	0	45	21:00	1	46	7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
9:15	0	43	6	0	4	0	0	0	0	0	0	0	0	53	21:15	0	44	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
9:30	1	42	5	0	3	0	0	0	0	0	0	0	0	51	21:30	0	44	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
9:45	0	43	2	0	1	0	0	0	0	0	0	0	0	46	21:45	1	35	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
10:00	0	45	5	0	1	0	0	0	0	0	0	0	0	51	22:00	0	43	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
10:15	1	52	7	0	2	0	0	0	0	0	0	0	0	62	22:15	0	23	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
10:30	0	49	6	0	1	0	0	0	0	0	0	0	0	56	22:30	0	28	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
10:45	0	58	5	0	4	0	0	0	0	0	0	0	0	67	22:45	0	18	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
11:00	0	56	1	0	5	0	0	0	0	0	0	0	0	62	23:00	0	16	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
11:15	0	76	8	0	1	0	0	0	0	0	0	0	0	85	23:15	0	16	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
11:30	0	54	2	0	2	0	0	0	0	0	0	0	0	58	23:30	0	11	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
11:45	0	60	4	0	3	0	0	0	0	0	0	0	0	67	23:45	0	19	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
TOTAL	3	1,038	94	4	46	0	0	0	0	0	0	0	0	1,185	TOTAL	10	2,615	206	13	100	0	0	0	0	0	0	0	0	0	0	0	0	2,944		

AM PEAK HOUR 11:00 AM
AM PEAK VOLUME 272

PM PEAK HOUR 2:00 PM
PM PEAK VOLUME 339

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, April 13, 2023
JOB #: SC3943

CITY# Claremont
CLASS2 Arrow between Claremont and Apartment Dwy

AM TIME	COMBINED													TOTAL	PM Time	COMBINED													TOTAL						
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13							
0:00	0	14	2	0	1	0	0	0	0	0	0	0	0	17	12:00	0	95	16	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	116
0:15	0	8	1	0	0	0	0	0	0	0	0	0	0	9	12:15	0	113	22	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	138	
0:30	0	9	0	0	1	0	0	0	0	0	0	0	0	10	12:30	0	113	19	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	135	
0:45	0	11	0	0	1	0	0	0	0	0	0	0	0	12	12:45	0	113	19	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	138	
1:00	1	6	1	0	0	0	0	0	0	0	0	0	0	8	13:00	0	139	12	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	158	
1:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5	13:15	0	94	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	105	
1:30	0	5	2	0	1	0	0	0	0	0	0	0	0	8	13:30	0	103	9	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	115	
1:45	0	8	1	0	0	0	0	0	0	0	0	0	0	9	13:45	0	113	12	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	129	
2:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5	14:00	0	115	16	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	135	
2:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3	14:15	0	110	15	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	129	
2:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:30	1	126	28	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	158	
2:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5	14:45	0	125	19	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	148	
3:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3	15:00	0	108	21	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	135	
3:15	0	3	1	0	0	0	0	0	0	1	0	0	0	5	15:15	0	123	17	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	144	
3:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3	15:30	0	132	22	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	155	
3:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	15:45	0	173	17	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	192	
4:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5	16:00	0	152	22	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	177	
4:15	0	1	1	0	0	0	0	0	0	0	0	0	0	2	16:15	0	165	22	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	188	
4:30	0	4	4	0	0	0	0	0	0	0	0	0	0	8	16:30	0	160	20	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	182	
4:45	0	13	1	0	1	1	0	0	0	0	0	0	0	16	16:45	0	164	10	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	177	
5:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10	17:00	0	184	18	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	204	
5:15	0	25	3	0	0	0	0	0	0	0	0	0	0	28	17:15	0	176	14	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	193	
5:30	0	20	7	0	1	0	0	0	0	0	0	0	0	28	17:30	0	151	26	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	179	
5:45	0	30	15	0	0	1	0	0	0	0	0	0	0	46	17:45	0	162	16	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	180	
6:00	0	20	12	0	1	0	0	0	0	0	0	0	0	33	18:00	0	151	20	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	173	
6:15	0	35	7	0	2	0	0	0	0	0	0	0	0	44	18:15	0	138	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	147	
6:30	2	62	11	0	5	0	0	0	0	0	0	0	0	80	18:30	0	118	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	126	
6:45	0	76	26	0	3	0	0	0	0	0	0	0	0	105	18:45	0	107	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	118	
7:00	0	57	16	0	9	0	0	0	0	0	0	0	0	82	19:00	1	91	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
7:15	0	77	15	1	3	0	0	0	0	0	0	0	0	96	19:15	0	86	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94	
7:30	0	113	18	0	2	0	0	0	0	0	0	0	0	133	19:30	0	96	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	99	
7:45	0	153	15	0	4	0	0	0	0	1	0	0	0	173	19:45	0	84	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	89	
8:00	0	128	11	0	6	0	0	0	0	0	0	0	0	145	20:00	0	70	14	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	86	
8:15	0	84	8	0	4	0	0	0	0	0	0	0	0	96	20:15	0	62	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	
8:30	0	91	9	0	5	1	0	0	0	0	0	0	0	106	20:30	0	70	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	77	
8:45	0	112	16	0	5	1	0	1	0	0	0	0	0	135	20:45	0	67	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	74	
9:00	0	89	9	0	3	0	0	0	0	0	0	0	0	101	21:00	0	57	7	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	67	
9:15	0	83	14	0	4	0	0	0	0	0	0	0	0	101	21:15	0	60	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	
9:30	0	83	14	0	3	0	0	0	0	0	0	0	0	100	21:30	0	61	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	69	
9:45	0	102	16	0	2	0	0	0	0	0	0	0	0	120	21:45	0	40	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	45	
10:00	0	67	15	0	6	0	0	0	0	0	0	0	0	88	22:00	0	41	7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	50	
10:15	0	76	10	0	5	0	0	0	0	0	0	0	0	91	22:15	0	44	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	49	
10:30	0	59	11	0	2	0	0	0	0	0	0	0	0	72	22:30	0	39	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	46	
10:45	0	81	10	0	7	0	0	0	0	0	0	0	0	98	22:45	0	34	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	38	
11:00	0	91	15	0	7	0	0	0	0	0	0	0	0	113	23:00	0	34	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	38	
11:15	0	91	14	0	2	1	0	0	0	0	0	0	0	108	23:15	0	21	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	
11:30	0	102	13	0	6	0	0	0	0	0	0	0	0	121	23:30	0	29	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	36	
11:45	0	115	12	0	6	0	0	0	0	0	0	0	0	133	23:45	0	24	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	29	
TOTAL	3	2,245	359	1	108	5	0	1	2	0	0	0	0	2,724	TOTAL	2	4,833	593	1	103	1	0	0	0	0	0	0	0	0	0	0	5,533			

AM PEAK HOUR 7:30 AM
AM PEAK VOLUME 547

PM PEAK HOUR 5:00 PM
PM PEAK VOLUME 756

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Saturday, April 15, 2023
JOB #: SC3943

CITY# Claremont
CLASS2 Arrow between Claremont and Apartment Dwy_SAT

AM TIME	COMBINED													TOTAL	PM Time	COMBINED													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	30	2	0	1	0	0	0	0	0	0	0	0	33	12:00	0	115	17	0	3	0	0	0	0	0	0	135		
0:15	0	23	0	0	3	0	0	0	0	0	0	0	0	26	12:15	0	117	9	0	1	0	0	0	0	0	0	127		
0:30	0	17	1	0	1	0	0	0	0	0	0	0	0	19	12:30	0	128	15	0	1	0	0	0	0	0	0	144		
0:45	0	21	2	0	1	0	0	0	0	0	0	0	0	24	12:45	0	133	13	0	3	0	0	0	0	0	0	149		
1:00	0	16	0	0	1	0	0	0	0	0	0	0	0	17	13:00	0	121	12	1	2	0	0	0	0	0	0	136		
1:15	0	13	1	0	1	0	0	0	0	0	0	0	0	15	13:15	1	107	22	0	1	0	0	0	0	0	0	131		
1:30	0	10	0	0	0	0	0	0	0	0	0	0	0	10	13:30	0	105	11	0	1	0	0	0	0	0	0	117		
1:45	0	12	4	0	1	0	0	0	0	0	0	0	0	17	13:45	0	106	17	0	2	0	0	0	0	0	0	125		
2:00	0	14	0	0	0	0	0	0	0	0	0	0	0	14	14:00	1	106	16	0	2	0	0	0	0	0	0	125		
2:15	0	15	1	0	0	0	0	0	0	0	0	0	0	16	14:15	0	108	12	0	3	0	0	0	0	0	0	123		
2:30	0	11	0	0	0	0	0	0	0	0	0	0	0	11	14:30	0	101	11	0	1	0	0	0	0	0	0	113		
2:45	0	8	0	0	1	0	0	0	0	0	0	0	0	9	14:45	0	120	15	0	3	0	0	0	0	0	0	138		
3:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6	15:00	0	110	10	0	2	0	0	0	0	0	0	122		
3:15	0	7	1	0	0	0	0	0	0	0	0	0	0	8	15:15	0	77	13	0	1	0	0	1	0	0	0	92		
3:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15:30	0	89	18	0	3	0	0	0	0	0	0	110		
3:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5	15:45	0	96	15	0	3	0	0	0	0	0	0	114		
4:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3	16:00	0	127	14	0	1	0	0	0	0	0	0	142		
4:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1	16:15	0	107	10	0	2	0	0	0	0	0	0	119		
4:30	0	3	1	0	0	0	0	0	0	0	0	0	0	4	16:30	0	106	10	0	1	0	0	0	0	0	0	117		
4:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4	16:45	1	116	5	0	2	0	0	0	0	0	0	124		
5:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5	17:00	1	96	8	0	4	0	0	0	0	0	0	109		
5:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7	17:15	0	90	10	0	1	0	0	0	0	0	0	101		
5:30	0	9	2	0	0	0	0	0	0	0	0	0	0	11	17:30	0	102	6	2	2	0	0	0	0	0	0	112		
5:45	0	17	0	0	0	0	0	0	0	0	0	0	0	17	17:45	0	100	11	0	2	0	0	0	0	0	0	113		
6:00	0	21	1	0	0	0	0	0	0	0	0	0	0	22	18:00	0	80	10	1	3	0	0	0	0	0	0	94		
6:15	0	16	0	0	0	0	0	0	0	0	0	0	0	16	18:15	0	91	11	0	1	0	0	0	0	0	0	103		
6:30	0	18	1	0	0	0	0	0	0	0	0	0	0	19	18:30	0	99	6	0	1	0	0	0	0	0	0	106		
6:45	0	25	0	0	1	0	0	0	0	1	0	0	0	27	18:45	1	104	5	0	1	0	0	0	0	0	0	111		
7:00	0	25	5	0	2	0	0	0	0	0	0	0	0	32	19:00	2	98	11	0	2	0	0	0	0	0	0	113		
7:15	0	20	4	0	0	0	0	0	0	0	0	0	0	24	19:15	0	79	8	0	1	0	0	0	0	0	0	88		
7:30	0	32	7	0	1	0	0	0	0	0	0	0	0	40	19:30	1	82	4	0	1	0	0	0	0	0	0	88		
7:45	0	34	7	0	0	0	0	0	0	0	0	0	0	41	19:45	0	86	4	0	2	0	0	0	0	0	0	92		
8:00	0	51	7	0	1	0	0	0	0	1	0	0	0	60	20:00	1	71	8	0	2	0	0	0	0	0	0	82		
8:15	0	25	6	0	2	0	0	0	0	0	0	0	0	33	20:15	0	68	12	0	0	0	0	0	0	0	0	80		
8:30	0	52	6	2	2	0	0	0	0	0	0	0	0	62	20:30	0	55	7	0	1	0	0	0	0	0	0	63		
8:45	0	67	9	1	1	0	0	0	0	0	0	0	0	78	20:45	1	61	10	0	1	0	0	0	0	0	0	73		
9:00	2	53	9	0	3	0	0	0	0	0	0	0	0	67	21:00	1	65	5	0	2	0	0	0	0	0	0	73		
9:15	0	60	4	0	1	0	0	0	0	0	0	0	0	65	21:15	0	51	8	0	0	0	0	0	0	0	0	59		
9:30	0	78	11	0	2	0	0	0	0	0	0	0	0	91	21:30	0	54	8	0	1	0	0	0	0	0	0	63		
9:45	1	84	8	0	2	0	0	0	0	0	0	0	0	95	21:45	0	50	5	0	2	0	0	0	0	0	0	57		
10:00	0	78	11	0	2	0	0	0	0	0	0	0	0	91	22:00	0	43	9	0	2	0	0	0	0	0	0	54		
10:15	2	68	6	0	2	0	0	0	0	0	0	0	0	78	22:15	0	41	2	0	1	0	0	0	0	0	0	44		
10:30	0	76	7	0	3	0	0	0	0	0	0	0	0	86	22:30	0	36	4	0	1	0	0	0	0	0	0	41		
10:45	0	90	13	0	4	0	0	0	0	0	0	0	0	107	22:45	0	31	3	1	2	0	0	0	0	0	0	37		
11:00	1	110	4	0	4	0	0	0	0	0	0	0	0	119	23:00	0	34	5	0	2	0	0	0	0	0	0	41		
11:15	0	109	11	0	2	0	0	0	0	0	0	0	0	122	23:15	0	25	3	0	1	0	0	0	0	0	0	29		
11:30	0	93	11	0	2	0	0	0	0	0	0	0	0	106	23:30	0	18	2	0	1	0	0	0	0	0	0	21		
11:45	0	104	9	0	2	0	0	0	0	0	0	0	0	115	23:45	0	21	2	0	2	0	0	0	0	0	0	25		
TOTAL	6	1,643	176	3	49	0	0	0	2	0	0	0	0	1,879	TOTAL	11	4,026	452	5	80	0	0	1	0	0	0	4,575		

AM PEAK HOUR 11:00 AM
AM PEAK VOLUME 462

PM PEAK HOUR 12:30 PM
PM PEAK VOLUME 560

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	17	5,669	628	8	129	0	0	1	2	0	0	0	0	6,454
% OF TOTAL	0.3%	87.8%	9.7%	0.1%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Class **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, April 13, 2023
JOB #: SC3943

CITY# Claremont
CLASS3 9th east of Mills

AM TIME	COMBINED													TOTAL	PM Time	COMBINED													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5	12:00	0	41	2	0	1	0	0	0	0	0	0	0	44	
0:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3	12:15	0	39	3	0	0	0	0	0	0	0	0	0	42	
0:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3	12:30	0	36	2	0	3	0	0	0	0	0	0	0	41	
0:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	12:45	0	28	6	0	0	0	0	0	0	0	0	0	34	
1:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2	13:00	0	42	3	0	1	0	0	0	0	0	0	0	46	
1:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4	13:15	0	36	1	0	1	0	0	0	0	0	0	0	38	
1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13:30	0	27	0	0	0	0	0	0	0	0	0	0	27	
1:45	0	4	4	0	0	0	0	0	0	0	0	0	0	8	13:45	0	25	3	0	0	0	0	0	0	0	0	0	28	
2:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:00	0	24	1	0	0	0	0	0	0	0	0	0	25	
2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14:15	0	24	4	0	0	0	0	0	0	0	0	0	28	
2:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2	14:30	2	35	4	0	0	1	0	0	0	0	0	0	42	
2:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:45	0	29	2	0	2	0	0	0	0	0	0	0	33	
3:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15:00	0	20	3	0	1	0	0	0	0	0	0	0	24	
3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:15	0	28	5	0	2	0	0	0	0	0	0	0	35	
3:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1	15:30	0	19	4	0	2	0	0	0	0	0	0	0	25	
3:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15:45	0	20	6	0	1	0	0	0	0	0	0	0	27	
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16:00	0	39	5	0	3	0	0	0	0	0	0	0	47	
4:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3	16:15	0	36	1	0	0	0	0	0	0	0	0	0	37	
4:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16:30	0	35	1	0	0	0	0	0	0	0	0	0	36	
4:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3	16:45	0	29	1	0	0	0	0	0	0	0	0	0	30	
5:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	17:00	0	54	2	0	1	0	0	0	0	0	0	0	57	
5:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4	17:15	0	30	3	0	0	0	0	0	0	0	0	0	33	
5:30	0	4	1	0	0	1	0	0	0	0	0	0	0	6	17:30	1	27	0	0	0	0	0	0	0	0	0	0	28	
5:45	0	7	1	0	0	0	0	0	0	0	0	0	0	8	17:45	0	31	0	0	1	0	0	0	0	0	0	0	32	
6:00	0	1	2	0	1	0	0	0	0	0	0	0	0	4	18:00	0	34	3	0	1	0	0	0	0	0	0	0	38	
6:15	0	0	3	0	0	0	0	0	0	0	0	0	0	3	18:15	0	29	2	0	1	0	0	0	0	0	0	0	32	
6:30	0	2	0	0	1	0	0	0	0	0	0	0	0	3	18:30	0	24	2	0	0	0	0	0	0	0	0	0	26	
6:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	18:45	0	33	0	0	0	0	0	0	0	0	0	0	33	
7:00	0	9	2	0	2	0	0	0	0	0	0	0	0	13	19:00	0	20	2	0	0	0	0	0	0	0	0	0	22	
7:15	0	6	8	0	4	0	0	0	0	0	0	0	0	18	19:15	0	20	1	0	0	0	0	0	0	0	0	0	21	
7:30	0	16	4	0	2	0	0	0	0	0	0	0	0	22	19:30	0	24	1	0	0	0	0	0	0	0	0	0	25	
7:45	0	23	4	0	2	0	0	0	0	0	0	0	0	29	19:45	0	28	2	0	0	0	0	0	0	0	0	0	30	
8:00	0	31	2	0	4	0	0	0	0	0	0	0	0	37	20:00	0	20	2	0	0	0	0	0	0	0	0	0	22	
8:15	0	19	1	0	1	0	0	0	0	0	0	0	0	21	20:15	0	24	3	0	0	0	0	0	0	0	0	0	27	
8:30	0	33	5	0	1	1	0	0	0	0	0	0	0	40	20:30	0	28	1	0	0	0	0	0	0	0	0	0	29	
8:45	0	30	2	0	2	0	0	0	0	0	0	0	0	34	20:45	0	26	4	0	0	0	0	0	0	0	0	0	30	
9:00	0	29	1	0	0	0	0	0	0	0	0	0	0	30	21:00	0	22	0	0	0	0	0	0	0	0	0	0	22	
9:15	0	35	6	0	1	0	0	0	0	0	0	0	0	42	21:15	0	23	0	0	0	0	0	0	0	0	0	0	23	
9:30	0	29	5	0	2	0	0	0	0	0	0	0	0	36	21:30	0	16	0	0	0	0	0	0	0	0	0	0	16	
9:45	0	26	0	0	1	0	0	0	0	0	0	0	0	27	21:45	0	12	0	0	0	0	0	0	0	0	0	0	12	
10:00	0	15	2	0	0	0	0	0	0	0	0	0	0	17	22:00	0	15	0	0	0	0	0	0	0	0	0	0	15	
10:15	0	14	3	0	0	0	0	0	0	0	0	0	0	17	22:15	0	27	1	0	0	0	0	0	0	0	0	0	28	
10:30	0	11	3	0	0	0	0	0	0	0	0	0	0	14	22:30	0	22	1	0	0	0	0	0	0	0	0	0	23	
10:45	0	37	3	0	0	0	0	0	0	0	0	1	0	41	22:45	0	21	1	0	0	0	0	0	0	0	0	0	22	
11:00	0	29	2	0	3	0	0	0	0	0	0	0	0	34	23:00	0	7	0	0	0	0	0	0	0	0	0	0	7	
11:15	0	26	3	0	3	0	0	0	0	0	0	0	0	32	23:15	0	9	0	0	0	0	0	0	0	0	0	0	9	
11:30	0	29	6	0	4	0	0	0	0	0	0	0	0	39	23:30	1	14	3	0	0	0	0	0	0	0	0	0	18	
11:45	0	26	7	1	1	0	0	0	0	0	0	0	0	35	23:45	0	10	3	0	0	0	0	0	0	0	0	0	13	
TOTAL	0	527	85	1	35	2	0	0	0	0	1	0	0	651	TOTAL	4	1,262	94	0	21	1	0	0	0	0	0	0	1,382	

AM PEAK HOUR 10:45 AM
AM PEAK VOLUME 146

PM PEAK HOUR 12:15 PM
PM PEAK VOLUME 163

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	4	1,789	179	1	56	3	0	0	0	0	1	0	0	2,033
% OF TOTAL	0.2%	88.0%	8.8%	0.0%	2.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Saturday, April 15, 2023
JOB #: SC3943

CITY# Claremont
CLASS3 9th east of Mills_SAT

AM TIME	COMBINED													TOTAL	PM Time	COMBINED													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	14	0	0	0	0	0	0	0	0	0	0	0	14	12:00	0	19	3	0	0	0	0	0	0	0	0	22		
0:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5	12:15	0	18	4	0	0	0	0	0	0	0	0	22		
0:30	0	2	2	0	0	0	0	0	0	0	0	0	0	4	12:30	0	28	3	0	1	0	0	0	0	0	0	32		
0:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5	12:45	0	25	5	0	0	0	0	0	0	0	0	30		
1:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3	13:00	0	34	3	0	0	0	0	0	0	0	0	37		
1:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6	13:15	0	19	1	0	0	0	0	0	0	0	0	20		
1:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	13:30	0	31	1	0	0	0	0	0	0	0	0	32		
1:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	13:45	0	27	1	0	0	0	0	0	0	0	0	28		
2:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4	14:00	0	33	4	0	0	0	0	0	0	0	0	37		
2:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:15	0	41	3	0	0	0	0	0	0	0	0	44		
2:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	14:30	0	27	3	0	0	0	0	0	0	0	0	30		
2:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	14:45	0	17	3	0	0	0	0	0	0	0	0	20		
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:00	0	30	4	0	0	0	0	0	0	0	0	34		
3:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4	15:15	0	29	4	0	0	0	0	0	0	0	0	33		
3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:30	0	30	3	0	0	0	0	0	0	0	0	33		
3:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15:45	0	19	1	0	0	0	0	0	0	0	0	20		
4:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16:00	0	28	0	0	0	0	0	0	0	0	0	28		
4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16:15	0	18	2	0	0	0	0	0	0	0	0	20		
4:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16:30	0	17	1	0	0	0	0	0	0	0	0	18		
4:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5	16:45	0	11	1	0	0	0	0	0	0	0	0	12		
5:00	0	1	0	0	0	1	0	0	0	0	0	0	0	2	17:00	0	27	2	0	0	0	0	0	0	0	0	29		
5:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	17:15	0	22	2	0	0	0	0	0	0	0	0	24		
5:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	17:30	0	29	1	0	0	0	0	0	0	0	0	30		
5:45	0	6	1	0	0	0	0	0	0	0	0	0	0	7	17:45	0	15	2	0	0	0	0	0	0	0	0	17		
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18:00	0	14	1	0	0	0	0	0	0	0	0	15		
6:15	0	0	3	0	0	0	0	0	0	0	0	0	0	3	18:15	0	25	2	0	0	0	0	0	0	0	0	27		
6:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	18:30	0	25	1	0	0	0	0	0	0	0	0	26		
6:45	0	4	0	0	0	1	0	0	0	0	0	0	0	5	18:45	0	23	0	0	0	0	0	0	0	0	0	23		
7:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	19:00	0	23	1	0	0	0	0	0	0	0	0	24		
7:15	0	3	2	0	0	0	0	0	0	0	0	0	0	5	19:15	0	21	0	0	0	0	0	0	0	0	0	21		
7:30	0	3	1	0	0	0	0	0	0	0	0	0	0	4	19:30	0	26	3	0	0	0	0	0	0	0	0	29		
7:45	0	17	3	0	0	0	0	0	0	0	0	0	0	20	19:45	0	14	2	0	0	0	0	0	0	0	0	16		
8:00	0	20	1	0	0	0	0	0	0	0	0	0	0	21	20:00	0	17	4	0	0	0	0	0	0	0	0	21		
8:15	0	12	1	2	0	0	0	0	0	0	0	0	0	15	20:15	0	24	2	0	0	0	0	0	0	0	0	26		
8:30	0	26	3	0	0	0	0	0	0	0	0	0	0	29	20:30	0	35	4	0	0	0	0	0	0	0	0	39		
8:45	0	21	1	0	0	0	0	0	0	0	0	0	0	22	20:45	0	26	1	0	0	0	0	0	0	0	0	27		
9:00	0	24	1	0	0	0	0	0	0	0	0	0	0	25	21:00	0	14	1	0	0	0	0	0	0	0	0	15		
9:15	0	14	0	0	0	0	0	0	0	0	0	0	0	14	21:15	0	21	2	0	0	0	0	0	0	0	0	23		
9:30	0	17	1	0	0	0	0	0	0	0	0	0	0	18	21:30	0	20	1	0	0	0	0	0	0	0	0	21		
9:45	0	30	6	0	0	0	0	0	0	0	0	0	0	36	21:45	0	20	2	0	0	0	0	0	0	0	0	22		
10:00	0	32	5	0	0	0	0	0	0	0	0	0	0	37	22:00	1	26	1	0	0	0	0	0	0	0	0	28		
10:15	0	18	2	0	0	0	0	0	0	0	0	0	0	20	22:15	0	15	0	0	0	0	0	0	0	0	0	15		
10:30	0	12	1	0	0	0	0	0	0	0	0	0	0	13	22:30	1	14	0	0	0	0	0	0	0	0	0	15		
10:45	0	25	3	0	0	1	0	0	0	0	0	0	0	29	22:45	1	16	0	0	0	0	0	0	0	0	0	17		
11:00	0	36	2	0	0	0	0	0	0	0	0	0	0	38	23:00	0	11	0	0	0	0	0	0	0	0	0	11		
11:15	0	16	1	0	0	0	0	0	0	0	0	0	0	17	23:15	0	12	0	0	0	0	0	0	0	0	0	12		
11:30	0	31	1	0	0	0	0	0	0	0	0	0	0	32	23:30	1	7	0	0	0	0	0	0	0	0	0	8		
11:45	0	31	5	0	0	0	0	0	0	0	0	0	0	36	23:45	0	11	0	0	0	0	0	0	0	0	0	11		
TOTAL	0	468	48	2	0	3	0	0	0	0	0	0	0	521	TOTAL	4	1,054	85	0	1	0	0	0	0	0	0	1,144		

AM PEAK HOUR 11:00 AM
AM PEAK VOLUME 123

PM PEAK HOUR 1:30 PM
PM PEAK VOLUME 141

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	4	1,522	133	2	1	3	0	0	0	0	0	0	0	1,665
% OF TOTAL	0.2%	91.4%	8.0%	0.1%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Class **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, April 13, 2023

CITY# Claremont

JOB #: SC3943

CLASS5 Claremont north of 9th

AM TIME	COMBINED													TOTAL	PM Time	COMBINED													TOTAL							
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13								
0:00	1	27	3	0	0	0	0	0	0	0	0	0	0	31	12:00	0	118	15	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140
0:15	0	22	3	2	0	0	0	0	0	0	0	0	0	27	12:15	0	139	23	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	169	
0:30	0	13	0	0	0	0	0	0	0	0	0	0	0	13	12:30	0	141	20	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	168		
0:45	0	11	2	0	0	0	0	0	0	0	0	0	0	13	12:45	0	173	24	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	205		
1:00	1	2	1	0	0	0	0	0	0	0	0	0	0	4	13:00	0	150	12	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	170		
1:15	0	6	2	0	0	0	0	0	0	0	0	0	0	8	13:15	0	125	23	0	5	1	0	0	1	0	0	0	0	0	0	0	0	0	155		
1:30	1	5	1	0	0	0	0	0	0	0	0	0	0	7	13:30	0	157	27	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	194		
1:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5	13:45	0	164	10	4	8	1	0	0	0	0	0	0	0	0	0	0	0	0	187		
2:00	0	3	3	0	0	0	0	0	0	0	0	0	0	6	14:00	0	149	18	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	176		
2:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4	14:15	0	116	19	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	142		
2:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6	14:30	1	162	25	1	8	1	0	0	0	0	0	0	0	0	0	0	0	0	198		
2:45	0	5	1	0	0	0	0	0	0	0	0	0	0	6	14:45	0	177	20	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	204		
3:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3	15:00	0	154	22	1	9	0	0	0	0	0	0	0	0	0	0	0	0	0	186		
3:15	1	5	1	0	0	0	0	0	0	0	0	0	0	7	15:15	0	184	31	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	222		
3:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	15:30	0	214	29	2	6	0	0	1	0	0	0	0	0	0	0	0	0	0	252		
3:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	15:45	0	216	34	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	255		
4:00	0	8	2	1	0	0	0	0	0	0	0	0	0	11	16:00	0	215	19	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	240		
4:15	0	7	1	0	0	0	0	0	0	0	0	0	0	8	16:15	0	203	26	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	231		
4:30	0	11	3	1	1	0	0	0	0	0	0	0	0	16	16:30	0	195	33	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	230		
4:45	0	24	10	0	2	0	0	0	0	0	0	0	0	36	16:45	3	206	24	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	238		
5:00	0	17	7	1	0	0	0	0	0	0	0	0	0	25	17:00	0	243	16	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	263		
5:15	0	16	8	0	1	0	0	0	0	0	0	0	0	25	17:15	0	257	25	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	285		
5:30	0	25	17	1	0	1	0	0	0	0	0	0	0	44	17:30	0	203	25	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	232		
5:45	0	50	20	3	2	1	0	0	0	0	0	0	0	76	17:45	0	195	18	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	216		
6:00	0	58	7	1	1	1	0	0	0	0	0	0	0	68	18:00	0	217	12	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	236		
6:15	0	48	16	1	1	0	0	0	0	0	0	0	0	66	18:15	0	151	14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	168		
6:30	1	59	10	3	3	0	0	0	0	0	0	0	0	76	18:30	1	148	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169		
6:45	0	112	27	1	1	0	0	0	0	0	0	0	0	141	18:45	0	148	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164		
7:00	0	104	20	3	3	0	0	1	0	0	0	0	0	131	19:00	1	126	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	135		
7:15	0	136	23	3	4	1	0	0	0	0	0	0	0	167	19:15	0	114	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	123		
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8:00	0	182	24	0	5	2	0	0	0	0	0	0	0	213	20:00	0	83	10	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	98		
8:15	0	186	25	0	3	2	0	0	0	0	0	0	0	216	20:15	0	96	13	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	111		
8:30	0	174	20	5	4	1	0	0	0	0	0	0	0	204	20:30	0	100	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108		
8:45	0	155	19	2	4	0	0	0	0	0	0	0	0	180	20:45	0	78	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	84		
9:00	0	124	28	3	7	1	0	0	0	0	0	0	0	163	21:00	0	88	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93		
9:15	0	127	18	3	5	1	0	0	0	0	0	0	0	154	21:15	0	86	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97		
9:30	0	122	19	1	6	3	0	0	0	0	0	0	0	151	21:30	1	70	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74		
9:45	0	135	23	1	8	0	0	0	0	0	0	0	0	167	21:45	0	72	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	81		
10:00	0	99	18	4	7	1	0	0	0	0	0	0	0	129	22:00	0	52	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56		
10:15	0	97	15	0	7	0	0	0	0	0	0	0	0	119	22:15	0	57	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	64		
10:30	0	79	14	1	6	2	0	0	1	0	0	0	0	103	22:30	0	53	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60		
10:45	0	123	15	2	4	2	0	0	0	0	0	0	0	146	22:45	0	47	8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	57		
11:00	0	109	15	4	4	0	0	0	0	0	0	0	0	132	23:00	0	38	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44		
11:15	0	114	13	1	4	1	0	0	0	0	0	0	0	133	23:15	1	26	8	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	37		
11:30	0	108	21	2	6	0	0	0	0	0	0	0	0	137	23:30	0	18	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24		
11:45	0	111	16	2	1	0	0	0	0	0	0	0	0	130	23:45	0	24	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	27		
TOTAL	9	3,254	563	59	108	20	0	1	1	0	0	0	0	4,015	TOTAL	8	6,362	722	71	128	11	0	1	1	0	0	0	0	0	0	0	7,304				

AM PEAK HOUR 7:30 AM
AM PEAK VOLUME 929

PM PEAK HOUR 4:45 PM
PM PEAK VOLUME 1,018

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11 </	

























APPENDIX B

EXISTING YEAR LEVEL-OF-SERVICE WORKSHEET

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	432	219	351	738	64	125	45	264	35	160	53
Future Volume (veh/h)	32	432	219	351	738	64	125	45	264	35	160	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	470	238	382	802	70	136	49	287	38	174	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	766	342	434	1501	669	420	549	490	287	816	263
Arrive On Green	0.04	0.22	0.22	0.24	0.42	0.42	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1148	1777	1585	1044	2641	852
Grp Volume(v), veh/h	35	470	238	382	802	70	136	49	287	38	115	117
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1148	1777	1585	1044	1777	1717
Q Serve(g_s), s	1.1	7.0	8.1	12.0	9.8	1.6	5.8	1.1	8.9	1.9	2.8	2.9
Cycle Q Clear(g_c), s	1.1	7.0	8.1	12.0	9.8	1.6	8.7	1.1	8.9	10.8	2.8	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	66	766	342	434	1501	669	420	549	490	287	549	530
V/C Ratio(X)	0.53	0.61	0.70	0.88	0.53	0.10	0.32	0.09	0.59	0.13	0.21	0.22
Avail Cap(c_a), veh/h	171	1098	490	474	1701	759	420	549	490	287	549	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	20.7	21.1	21.2	12.6	10.2	18.2	14.3	17.0	21.5	14.9	14.9
Incr Delay (d2), s/veh	6.4	0.8	2.6	16.2	0.3	0.1	2.0	0.3	5.1	1.0	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.7	3.0	6.5	3.4	0.5	1.6	0.5	3.6	0.5	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	21.5	23.7	37.4	12.9	10.2	20.2	14.6	22.1	22.5	15.7	15.9
LnGrp LOS	C	C	C	D	B	B	C	B	C	C	B	B
Approach Vol, veh/h		743			1254			472			270	
Approach Delay, s/veh		22.8			20.2			20.8			16.8	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	18.7	17.1		22.5	6.7	29.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	15.5	18.0		18.0	5.6	27.9				
Max Q Clear Time (g_c+I1), s		10.9	14.0	10.1		12.8	3.1	11.8				
Green Ext Time (p_c), s		1.6	0.2	2.5		0.6	0.0	5.4				
Intersection Summary												
HCM 6th Ctrl Delay				20.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

























03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷		↶	↷	
Traffic Volume (veh/h)	58	691	96	156	425	47	168	65	219	46	49	35
Future Volume (veh/h)	58	691	96	156	425	47	168	65	219	46	49	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	751	104	170	462	51	183	71	238	50	53	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	1015	453	174	1157	516	576	626	558	396	727	473
Arrive On Green	0.06	0.29	0.29	0.10	0.33	0.33	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1306	1777	1585	1070	2062	1343
Grp Volume(v), veh/h	63	751	104	170	462	51	183	71	238	50	45	46
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1306	1777	1585	1070	1777	1629
Q Serve(g_s), s	1.8	9.8	2.6	4.9	5.1	1.1	5.6	1.4	5.8	1.9	0.9	1.0
Cycle Q Clear(g_c), s	1.8	9.8	2.6	4.9	5.1	1.1	6.5	1.4	5.8	7.8	0.9	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	103	1015	453	174	1157	516	576	626	558	396	626	574
V/C Ratio(X)	0.61	0.74	0.23	0.98	0.40	0.10	0.32	0.11	0.43	0.13	0.07	0.08
Avail Cap(c_a), veh/h	174	1252	558	174	1252	558	576	626	558	396	626	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	16.5	14.0	23.0	13.4	12.0	13.2	11.2	12.6	15.6	11.0	11.0
Incr Delay (d2), s/veh	5.8	1.9	0.3	60.6	0.2	0.1	1.4	0.4	2.4	0.7	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.7	0.8	4.8	1.8	0.4	1.6	0.5	2.1	0.5	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	18.4	14.2	83.6	13.6	12.1	14.6	11.5	15.0	16.2	11.2	11.3
LnGrp LOS	C	B	B	F	B	B	B	B	B	B	B	B
Approach Vol, veh/h		918			683			492			141	
Approach Delay, s/veh		18.7			30.9			14.4			13.0	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	9.5	19.1		22.5	7.5	21.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		8.5	6.9	11.8		9.8	3.8	7.1				
Green Ext Time (p_c), s		1.8	0.0	2.8		0.4	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay				21.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

03/18/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	391	137	151	892	23	124	105	100	72	174	166
Future Volume (veh/h)	63	391	137	151	892	23	124	105	100	72	174	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	425	149	164	970	25	135	114	109	78	189	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	1031	460	173	1162	518	421	655	555	496	655	555
Arrive On Green	0.06	0.29	0.29	0.10	0.33	0.33	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1013	1870	1585	1158	1870	1585
Grp Volume(v), veh/h	68	425	149	164	970	25	135	114	109	78	189	180
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1013	1870	1585	1158	1870	1585
Q Serve(g_s), s	1.9	5.0	3.8	4.7	13.0	0.6	5.7	2.2	2.5	2.6	3.8	4.3
Cycle Q Clear(g_c), s	1.9	5.0	3.8	4.7	13.0	0.6	9.5	2.2	2.5	4.7	3.8	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	108	1031	460	173	1162	518	421	655	555	496	655	555
V/C Ratio(X)	0.63	0.41	0.32	0.95	0.83	0.05	0.32	0.17	0.20	0.16	0.29	0.32
Avail Cap(c_a), veh/h	173	1244	555	173	1244	555	421	655	555	496	655	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	14.7	14.3	23.1	16.0	11.8	15.5	11.6	11.7	13.2	12.1	12.3
Incr Delay (d2), s/veh	6.0	0.3	0.4	52.9	4.8	0.0	2.0	0.6	0.8	0.7	1.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.8	1.2	4.4	5.3	0.2	1.4	0.9	0.9	0.6	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	15.0	14.7	76.0	20.8	11.9	17.5	12.1	12.5	13.9	13.2	13.8
LnGrp LOS	C	B	B	E	C	B	B	B	B	B	B	B
Approach Vol, veh/h		642			1159			358			447	
Approach Delay, s/veh		16.5			28.4			14.3			13.6	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	9.5	19.4		22.5	7.6	21.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		11.5	6.7	7.0		6.7	3.9	15.0				
Green Ext Time (p_c), s		0.9	0.0	2.5		1.5	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			21.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	92	728	82	92	456	46	128	95	109	60	72	85
Future Volume (veh/h)	92	728	82	92	456	46	128	95	109	60	72	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	791	89	100	496	50	139	103	118	65	78	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	1055	471	133	1055	471	581	671	569	559	671	569
Arrive On Green	0.07	0.30	0.30	0.07	0.30	0.30	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1321	1870	1585	1291	1870	1585
Grp Volume(v), veh/h	100	791	89	100	496	50	139	103	118	65	78	92
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1321	1870	1585	1291	1870	1585
Q Serve(g_s), s	2.8	10.1	2.1	2.8	5.7	1.1	3.9	1.9	2.6	1.8	1.4	2.0
Cycle Q Clear(g_c), s	2.8	10.1	2.1	2.8	5.7	1.1	5.3	1.9	2.6	3.7	1.4	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	1055	471	133	1055	471	581	671	569	559	671	569
V/C Ratio(X)	0.75	0.75	0.19	0.75	0.47	0.11	0.24	0.15	0.21	0.12	0.12	0.16
Avail Cap(c_a), veh/h	178	1275	569	178	1275	569	581	671	569	559	671	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	15.9	13.1	22.7	14.4	12.8	12.5	10.9	11.1	12.2	10.8	10.9
Incr Delay (d2), s/veh	11.5	2.0	0.2	11.5	0.3	0.1	1.0	0.5	0.8	0.4	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.8	0.7	1.5	2.0	0.4	1.2	0.7	0.9	0.5	0.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	18.0	13.3	34.2	14.7	12.9	13.5	11.4	12.0	12.6	11.1	11.6
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		980			646			360			235	
Approach Delay, s/veh		19.2			17.6			12.4			11.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	8.3	19.4		22.5	8.3	19.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		7.3	4.8	12.1		5.7	4.8	7.7				
Green Ext Time (p_c), s		1.0	0.0	2.8		0.7	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				16.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	379	146	498	836	85	198	61	361	90	71	70
Future Volume (veh/h)	27	379	146	498	836	85	198	61	361	90	71	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	412	159	541	909	92	215	66	392	98	77	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	849	378	286	1029	459	590	587	497	508	533	469
Arrive On Green	0.03	0.24	0.24	0.08	0.29	0.29	0.08	0.31	0.31	0.07	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1788	1576
Grp Volume(v), veh/h	29	412	159	541	909	92	215	66	392	98	76	77
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1587
Q Serve(g_s), s	1.0	6.0	5.1	5.0	14.8	2.6	5.0	1.5	13.6	2.2	1.9	2.2
Cycle Q Clear(g_c), s	1.0	6.0	5.1	5.0	14.8	2.6	5.0	1.5	13.6	2.2	1.9	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Lane Grp Cap(c), veh/h	57	849	378	286	1029	459	590	587	497	508	529	473
V/C Ratio(X)	0.51	0.49	0.42	1.89	0.88	0.20	0.36	0.11	0.79	0.19	0.14	0.16
Avail Cap(c_a), veh/h	147	1059	472	286	1059	472	590	587	497	536	529	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	19.8	19.5	27.7	20.5	16.2	13.3	14.7	18.9	12.9	15.6	15.7
Incr Delay (d2), s/veh	6.9	0.4	0.7	414.4	8.8	0.2	0.4	0.4	12.0	0.2	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.2	1.7	18.3	6.4	0.8	1.8	0.6	5.8	0.8	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	20.2	20.2	442.1	29.3	16.4	13.7	15.1	30.9	13.1	16.1	16.4
LnGrp LOS	D	C	C	F	C	B	B	B	C	B	B	B
Approach Vol, veh/h		600			1542			673			251	
Approach Delay, s/veh		21.0			173.4			23.8			15.0	
Approach LOS		C			F			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	23.5	9.5	18.9	9.5	22.5	6.4	22.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.2	15.6	7.0	8.0	7.0	4.2	3.0	16.8				
Green Ext Time (p_c), s	0.0	0.5	0.0	2.1	0.0	0.6	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay				97.7								
HCM 6th LOS				F								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	51	735	162	444	453	141	147	119	539	96	66	40
Future Volume (veh/h)	51	735	162	444	453	141	147	119	539	96	66	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	799	176	483	492	153	160	129	586	104	72	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	949	423	275	1058	472	590	561	475	416	633	350
Arrive On Green	0.05	0.27	0.27	0.08	0.30	0.30	0.08	0.30	0.30	0.07	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2207	1221
Grp Volume(v), veh/h	55	799	176	483	492	153	160	129	586	104	57	58
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1651
Q Serve(g_s), s	1.9	13.3	5.7	5.0	7.1	4.7	3.9	3.3	18.8	2.5	1.5	1.6
Cycle Q Clear(g_c), s	1.9	13.3	5.7	5.0	7.1	4.7	3.9	3.3	18.8	2.5	1.5	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.74
Lane Grp Cap(c), veh/h	88	949	423	275	1058	472	590	561	475	416	510	473
V/C Ratio(X)	0.63	0.84	0.42	1.75	0.47	0.32	0.27	0.23	1.23	0.25	0.11	0.12
Avail Cap(c_a), veh/h	142	1019	455	275	1058	472	590	561	475	439	510	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	21.7	19.0	28.9	18.0	17.1	13.9	16.5	22.0	14.0	16.5	16.5
Incr Delay (d2), s/veh	7.2	6.1	0.7	354.2	0.3	0.4	0.2	1.0	122.2	0.3	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.6	1.9	15.4	2.5	1.5	1.4	1.4	22.0	0.9	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	27.9	19.6	383.1	18.3	17.5	14.1	17.5	144.2	14.3	16.9	17.1
LnGrp LOS	D	C	B	F	B	B	B	B	F	B	B	B
Approach Vol, veh/h		1030			1128			875			219	
Approach Delay, s/veh		26.9			174.4			101.7			15.7	
Approach LOS		C			F			F			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	23.3	9.5	21.3	9.5	22.5	7.6	23.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.5	20.8	7.0	15.3	5.9	3.6	3.9	9.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.4	0.0	0.4	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				97.4								
HCM 6th LOS				F								

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

03/18/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖		↗	↘		↖
Traffic Volume (veh/h)	91	257	478	29	726	637	157	0	415	41	0	536
Future Volume (veh/h)	91	257	478	29	726	637	157	0	415	41	0	536
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	99	279	520	32	789	692	171	0	451	45	0	583
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	149	1778	793	67	1613	720	217	0	0	88	0	0
Arrive On Green	0.08	0.50	0.50	0.04	0.45	0.45	0.12	0.00	0.00	0.05	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	171		1781	45	
Grp Volume(v), veh/h	99	279	520	32	789	692	171	33.4		45	22.9	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	C		1781	C	
Q Serve(g_s), s	2.1	1.7	9.7	0.7	6.2	16.8	3.7			1.0		
Cycle Q Clear(g_c), s	2.1	1.7	9.7	0.7	6.2	16.8	3.7			1.0		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	149	1778	793	67	1613	720	217			88		
V/C Ratio(X)	0.66	0.16	0.66	0.48	0.49	0.96	0.79			0.51		
Avail Cap(c_a), veh/h	225	1778	793	225	1613	720	225			225		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	17.6	5.4	7.4	18.7	7.6	10.5	16.9			18.4		
Incr Delay (d2), s/veh	5.0	0.0	2.0	5.3	0.2	24.4	16.4			4.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	0.9	0.3	1.9	0.3	1.3	7.9	2.1			0.4		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	5.4	9.3	24.0	7.8	34.9	33.4			22.9		
LnGrp LOS	C	A	A	C	A	C	C			C		
Approach Vol, veh/h		898			1513							
Approach Delay, s/veh		9.6			20.6							
Approach LOS		A			C							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	6.5		6.0	24.3	9.3		7.8	22.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	5.0		5.0	18.0	5.0		5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.0		2.7	11.7	5.7		4.1	18.8				
Green Ext Time (p_c), s	0.0		0.0	2.0	0.0		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary






















4: Baseline Rd & SR-210 Ramp

03/18/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	792	437	32	448	369	113	0	819	77	0	485
Future Volume (veh/h)	141	792	437	32	448	369	113	0	819	77	0	485
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	153	861	475	35	487	401	123	0	890	84	0	527
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	205	1568	699	74	1307	583	184	0	0	146	0	0
Arrive On Green	0.12	0.44	0.44	0.04	0.37	0.37	0.10	0.00	0.00	0.08	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	123		1781	84	
Grp Volume(v), veh/h	153	861	475	35	487	401	123	18.3		84	18.0	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	2.7	5.8	7.8	0.6	3.3	7.0	2.2			1.5		
Cycle Q Clear(g_c), s	2.7	5.8	7.8	0.6	3.3	7.0	2.2			1.5		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	205	1568	699	74	1307	583	184			146		
V/C Ratio(X)	0.75	0.55	0.68	0.47	0.37	0.69	0.67			0.58		
Avail Cap(c_a), veh/h	273	1962	875	273	1962	875	273			273		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	14.0	6.7	7.3	15.3	7.5	8.7	14.1			14.4		
Incr Delay (d2), s/veh	7.5	0.3	1.5	4.6	0.2	1.5	4.2			3.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	1.2	0.9	1.3	0.3	0.6	1.4	0.8			0.6		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	7.0	8.8	19.9	7.7	10.2	18.3			18.0		
LnGrp LOS	C	A	A	B	A	B	B			B		
Approach Vol, veh/h		1489			923							
Approach Delay, s/veh		9.1			9.2							
Approach LOS		A			A							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	7.2		5.9	18.9	7.9		8.2	16.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	5.0		5.0	18.0	5.0		5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.5		2.6	9.8	4.2		4.7	9.0				
Green Ext Time (p_c), s	0.0		0.0	4.4	0.0		0.0	3.0				
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

HCM Signalized Intersection Capacity Analysis
5: Monte Vista Ave & Claremont Blvd

03/18/2024

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	173	2	13	1	0	0	11	420	1	0	382	285	
Future Volume (vph)	173	2	13	1	0	0	11	420	1	0	382	285	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5	
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95			0.95	1.00	
Frt	1.00	1.00	0.85		1.00		1.00	1.00			1.00	0.85	
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00			1.00	1.00	
Satd. Flow (prot)	1681	1614	1504		1770		1770	3538			3539	1583	
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00			1.00	1.00	
Satd. Flow (perm)	1681	1614	1504		1863		1770	3538			3539	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	188	2	14	1	0	0	12	457	1	0	415	310	
RTOR Reduction (vph)	0	1	11	0	0	0	0	0	0	0	0	163	
Lane Group Flow (vph)	96	94	2	0	1	0	12	458	0	0	415	147	
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm	
Protected Phases	4	4			8		5	2			6	6	
Permitted Phases			4	8						6		6	
Actuated Green, G (s)	6.7	6.7	6.7		0.8		0.7	28.8			23.6	23.6	
Effective Green, g (s)	6.7	6.7	6.7		0.8		0.7	28.8			23.6	23.6	
Actuated g/C Ratio	0.13	0.13	0.13		0.02		0.01	0.58			0.47	0.47	
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)	226	217	202		29		24	2046			1677	750	
v/s Ratio Prot	0.06	c0.06					0.01	c0.13			0.12		
v/s Ratio Perm			0.00		c0.00							0.09	
v/c Ratio	0.42	0.43	0.01		0.03		0.50	0.22			0.25	0.20	
Uniform Delay, d1	19.8	19.8	18.7		24.1		24.4	5.1			7.8	7.6	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00	
Incremental Delay, d2	1.3	1.4	0.0		0.5		15.4	0.3			0.4	0.6	
Delay (s)	21.1	21.2	18.7		24.6		39.8	5.3			8.2	8.2	
Level of Service	C	C	B		C		D	A			A	A	
Approach Delay (s)		21.0			24.6			6.2			8.2		
Approach LOS		C			C			A			A		
Intersection Summary													
HCM 2000 Control Delay			9.4									HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.29										
Actuated Cycle Length (s)			49.8									Sum of lost time (s)	18.0
Intersection Capacity Utilization			37.2%									ICU Level of Service	A
Analysis Period (min)			15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 5: Monte Vista Ave & Claremont Blvd

03/19/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	304	0	20	3	9	1	18	452	1	1	425	202	
Future Volume (vph)	304	0	20	3	9	1	18	452	1	1	425	202	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00	
Frt	1.00	1.00	0.85		0.99		1.00	1.00		1.00	1.00	0.85	
Flt Protected	0.95	0.95	1.00		0.99		0.95	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	1681	1612	1504		1825		1770	3538		1770	3539	1583	
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.47	1.00	1.00	
Satd. Flow (perm)	1681	1612	1504		1845		1770	3538		880	3539	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	330	0	22	3	10	1	20	491	1	1	462	220	
RTOR Reduction (vph)	0	119	16	0	1	0	0	0	0	0	0	129	
Lane Group Flow (vph)	165	48	4	0	13	0	20	492	0	1	462	91	
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm	
Protected Phases	4	4			8		5	2			6	6	
Permitted Phases			4	8						6		6	
Actuated Green, G (s)	10.1	10.1	10.1		1.0		0.7	26.3		21.1	21.1	21.1	
Effective Green, g (s)	10.1	10.1	10.1		1.0		0.7	26.3		21.1	21.1	21.1	
Actuated g/C Ratio	0.20	0.20	0.20		0.02		0.01	0.52		0.41	0.41	0.41	
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	333	319	298		36		24	1828		364	1467	656	
v/s Ratio Prot	c0.10	0.03					0.01	c0.14			c0.13		
v/s Ratio Perm			0.00		c0.01					0.00		0.06	
v/c Ratio	0.50	0.15	0.01		0.36		0.83	0.27		0.00	0.31	0.14	
Uniform Delay, d1	18.1	16.9	16.4		24.6		25.0	6.9		8.7	10.0	9.3	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.2	0.2	0.0		6.1		110.4	0.4		0.0	0.6	0.4	
Delay (s)	19.3	17.1	16.4		30.7		135.5	7.3		8.7	10.6	9.7	
Level of Service	B	B	B		C		F	A		A	B	A	
Approach Delay (s)		18.1			30.7			12.3			10.3		
Approach LOS		B			C			B			B		
Intersection Summary													
HCM 2000 Control Delay			12.9									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.39										
Actuated Cycle Length (s)			50.9									Sum of lost time (s)	18.0
Intersection Capacity Utilization			37.7%									ICU Level of Service	A
Analysis Period (min)			15										

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 6: Foothill Blvd & Indian Hill Blvd

03/18/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	542	100	84	704	132	132	309	76	172	364	157
Future Volume (veh/h)	93	542	100	84	704	132	132	309	76	172	364	157
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	589	109	91	765	143	143	336	83	187	396	171
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	810	149	116	935	417	144	826	201	144	546	462
Arrive On Green	0.07	0.27	0.27	0.07	0.26	0.26	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1781	2995	553	1781	3554	1585	1781	2833	690	1781	1870	1585
Grp Volume(v), veh/h	101	349	349	91	765	143	143	209	210	187	396	171
Grp Sat Flow(s),veh/h/ln	1781	1777	1771	1781	1777	1585	1781	1777	1746	1781	1870	1585
Q Serve(g_s), s	3.4	11.0	11.1	3.1	12.5	4.5	5.0	5.8	6.0	5.0	11.7	5.3
Cycle Q Clear(g_c), s	3.4	11.0	11.1	3.1	12.5	4.5	5.0	5.8	6.0	5.0	11.7	5.3
Prop In Lane	1.00		0.31	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	129	480	479	116	935	417	144	518	509	144	546	462
V/C Ratio(X)	0.78	0.73	0.73	0.78	0.82	0.34	0.99	0.40	0.41	1.30	0.73	0.37
Avail Cap(c_a), veh/h	144	518	516	144	1036	462	144	518	509	144	546	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	20.4	20.5	28.4	21.4	18.4	28.3	17.5	17.6	28.4	19.6	17.4
Incr Delay (d2), s/veh	21.6	4.7	4.8	19.5	4.8	0.5	72.0	2.3	2.5	174.7	8.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	4.6	4.6	1.8	5.1	1.5	4.9	2.5	2.5	9.0	5.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.8	25.1	25.3	47.9	26.2	18.9	100.3	19.9	20.1	203.1	27.8	19.6
LnGrp LOS	D	C	C	D	C	B	F	B	C	F	C	B
Approach Vol, veh/h		799			999			562			754	
Approach Delay, s/veh		28.3			27.1			40.4			69.4	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	8.5	21.2	9.5	22.5	9.0	20.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	7.0	8.0	5.1	13.1	7.0	13.7	5.4	14.5				
Green Ext Time (p_c), s	0.0	1.7	0.0	1.8	0.0	1.2	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			40.1									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

6: Foothill Blvd & Indian Hill Blvd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	756	110	103	642	105	182	286	117	138	225	76
Future Volume (veh/h)	49	756	110	103	642	105	182	286	117	138	225	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	822	120	112	698	114	198	311	127	150	245	83
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	875	128	139	1108	494	139	697	279	139	526	446
Arrive On Green	0.05	0.28	0.28	0.08	0.31	0.31	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1781	3111	454	1781	3554	1585	1781	2478	991	1781	1870	1585
Grp Volume(v), veh/h	53	469	473	112	698	114	198	221	217	150	245	83
Grp Sat Flow(s),veh/h/ln	1781	1777	1789	1781	1777	1585	1781	1777	1692	1781	1870	1585
Q Serve(g_s), s	1.9	16.5	16.5	4.0	10.8	3.4	5.0	6.5	6.8	5.0	6.9	2.5
Cycle Q Clear(g_c), s	1.9	16.5	16.5	4.0	10.8	3.4	5.0	6.5	6.8	5.0	6.9	2.5
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	85	500	503	139	1108	494	139	500	476	139	526	446
V/C Ratio(X)	0.62	0.94	0.94	0.80	0.63	0.23	1.42	0.44	0.46	1.08	0.47	0.19
Avail Cap(c_a), veh/h	139	500	503	139	1108	494	139	500	476	139	526	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	22.5	22.5	29.0	18.9	16.3	29.5	18.9	19.0	29.5	19.0	17.4
Incr Delay (d2), s/veh	7.3	25.9	25.8	28.1	1.2	0.2	226.8	2.8	3.1	98.6	2.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	9.6	9.7	2.6	4.0	1.1	10.8	2.8	2.8	5.9	3.2	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	48.4	48.3	57.1	20.0	16.6	256.3	21.7	22.1	128.1	22.0	18.4
LnGrp LOS	D	D	D	E	C	B	F	C	C	F	C	B
Approach Vol, veh/h		995			924			636			478	
Approach Delay, s/veh		47.7			24.1			94.9			54.7	
Approach LOS		D			C			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.5	22.5	9.5	22.5	7.6	24.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	7.0	8.8	6.0	18.5	7.0	8.9	3.9	12.8				
Green Ext Time (p_c), s	0.0	1.7	0.0	0.0	0.0	1.1	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			51.5									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↗			↗			↗
Traffic Vol, veh/h	21	771	77	123	1025	10	0	0	89	0	0	8
Future Vol, veh/h	21	771	77	123	1025	10	0	0	89	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	838	84	134	1114	11	0	0	97	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1125	0	0	922	0	0	-	-	419	-	-	557
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	617	-	-	736	-	-	0	0	583	0	0	474
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	617	-	-	736	-	-	-	-	583	-	-	474
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			1.2			12.4			12.7		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	583	617	-	-	736	-	-	474
HCM Lane V/C Ratio	0.166	0.037	-	-	0.182	-	-	0.018
HCM Control Delay (s)	12.4	11.1	-	-	11	-	-	12.7
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.7	-	-	0.1

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗			↗			↗
Traffic Vol, veh/h	21	998	57	71	864	5	0	0	122	0	0	27
Future Vol, veh/h	21	998	57	71	864	5	0	0	122	0	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	1085	62	77	939	5	0	0	133	0	0	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	944	0	0	1147	0	0	-	-	543	-	-	470
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	722	-	-	605	-	-	0	0	484	0	0	540
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	722	-	-	605	-	-	-	-	484	-	-	540
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.9			15.2			12		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	484	722	-	-	605	-	-	540
HCM Lane V/C Ratio	0.274	0.032	-	-	0.128	-	-	0.054
HCM Control Delay (s)	15.2	10.1	-	-	11.8	-	-	12
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.4	-	-	0.2

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	4	791	66	70	1153	11	7	3	16	11	7	0
Future Volume (veh/h)	4	791	66	70	1153	11	7	3	16	11	7	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	860	72	76	1253	12	8	3	17	12	8	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	1403	626	291	1424	14	236	120	389	477	288	0
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.00
Sat Flow, veh/h	438	3554	1585	643	3606	35	327	298	965	862	713	0
Grp Volume(v), veh/h	4	860	72	76	617	648	28	0	0	20	0	0
Grp Sat Flow(s),veh/h/ln	438	1777	1585	643	1777	1864	1589	0	0	1574	0	0
Q Serve(g_s), s	0.4	8.6	1.3	4.8	14.4	14.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.8	8.6	1.3	13.4	14.4	14.4	0.4	0.0	0.0	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.29		0.61	0.60		0.00
Lane Grp Cap(c), veh/h	193	1403	626	291	702	736	745	0	0	764	0	0
V/C Ratio(X)	0.02	0.61	0.12	0.26	0.88	0.88	0.04	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	197	1434	639	296	717	752	745	0	0	764	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.4	10.8	8.6	16.1	12.5	12.5	8.1	0.0	0.0	8.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.1	0.5	12.0	11.6	0.1	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	0.4	0.6	6.7	6.9	0.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	11.5	8.6	16.6	24.5	24.1	8.2	0.0	0.0	8.1	0.0	0.0
LnGrp LOS	B	B	A	B	C	C	A	A	A	A	A	A
Approach Vol, veh/h		936			1341			28			20	
Approach Delay, s/veh		11.3			23.9			8.2			8.1	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.1		22.5		22.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.4		16.8		2.3		16.4				
Green Ext Time (p_c), s		0.1		0.8		0.0		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				18.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	9	1297	14	12	898	12	69	10	83	27	8	0
Future Volume (veh/h)	9	1297	14	12	898	12	69	10	83	27	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1410	15	13	976	13	75	11	90	29	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	260	1421	634	162	1436	19	334	82	316	570	159	0
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00
Sat Flow, veh/h	569	3554	1585	382	3591	48	550	205	791	1072	397	0
Grp Volume(v), veh/h	10	1410	15	13	483	506	176	0	0	38	0	0
Grp Sat Flow(s),veh/h/ln	569	1777	1585	382	1777	1862	1546	0	0	1469	0	0
Q Serve(g_s), s	0.7	17.8	0.3	0.2	10.1	10.1	0.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	10.7	17.8	0.3	18.0	10.1	10.1	3.2	0.0	0.0	0.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	0.43		0.51	0.76		0.00
Lane Grp Cap(c), veh/h	260	1421	634	162	711	745	733	0	0	729	0	0
V/C Ratio(X)	0.04	0.99	0.02	0.08	0.68	0.68	0.24	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	260	1421	634	162	711	745	733	0	0	729	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.5	13.4	8.2	22.5	11.1	11.1	9.0	0.0	0.0	8.3	0.0	0.0
Incr Delay (d2), s/veh	0.1	21.9	0.0	0.2	2.6	2.5	0.8	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.7	0.1	0.1	3.6	3.7	1.1	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	35.3	8.2	22.7	13.7	13.6	9.8	0.0	0.0	8.4	0.0	0.0
LnGrp LOS	B	D	A	C	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1435			1002			176				38
Approach Delay, s/veh		34.9			13.8			9.8				8.4
Approach LOS		C			B			A				A
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		5.2		19.8		2.6		20.0				
Green Ext Time (p_c), s		0.7		0.0		0.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				24.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	586	6	7	849	113	2	1	7	135	4	333
Future Volume (veh/h)	162	586	6	7	849	113	2	1	7	135	4	333
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	176	637	7	8	923	123	2	1	8	147	4	362
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	1257	14	18	999	446	306	135	446	139	804	681
Arrive On Green	0.08	0.35	0.35	0.01	0.28	0.28	0.28	0.28	0.28	0.08	0.43	0.43
Sat Flow, veh/h	1781	3601	40	1781	3554	1585	755	481	1585	1781	1870	1585
Grp Volume(v), veh/h	176	314	330	8	923	123	3	0	8	147	4	362
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1585	1236	0	1585	1781	1870	1585
Q Serve(g_s), s	5.0	9.0	9.0	0.3	16.1	3.9	0.0	0.0	0.2	5.0	0.1	10.8
Cycle Q Clear(g_c), s	5.0	9.0	9.0	0.3	16.1	3.9	0.1	0.0	0.2	5.0	0.1	10.8
Prop In Lane	1.00		0.02	1.00		1.00	0.67		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	139	620	650	18	999	446	441	0	446	139	804	681
V/C Ratio(X)	1.26	0.51	0.51	0.43	0.92	0.28	0.01	0.00	0.02	1.06	0.00	0.53
Avail Cap(c_a), veh/h	139	620	650	139	999	446	441	0	446	139	804	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	16.5	16.5	31.5	22.3	17.9	16.6	0.0	16.6	29.5	10.4	13.5
Incr Delay (d2), s/veh	164.0	0.7	0.6	15.2	13.7	0.3	0.0	0.0	0.1	92.1	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	3.3	3.4	0.2	7.8	1.3	0.0	0.0	0.1	5.5	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	193.5	17.1	17.1	46.7	36.0	18.3	16.6	0.0	16.7	121.6	10.4	16.4
LnGrp LOS	F	B	B	D	D	B	B	A	B	F	B	B
Approach Vol, veh/h		820			1054			11				513
Approach Delay, s/veh		55.0			34.0			16.7				46.5
Approach LOS		D			C			B				D
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	5.2	26.8		32.0	9.5	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	7.0	2.2	2.3	11.0		12.8	7.0	18.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.1		0.6	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			43.8									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷	↶		↷	↶	↷	↶	↷
Traffic Volume (veh/h)	165	1001	7	17	687	120	11	7	20	119	4	156
Future Volume (veh/h)	165	1001	7	17	687	120	11	7	20	119	4	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	1088	8	18	747	130	12	8	22	129	4	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	1149	8	38	919	410	320	192	460	144	829	702
Arrive On Green	0.08	0.32	0.32	0.02	0.26	0.26	0.29	0.29	0.29	0.08	0.44	0.44
Sat Flow, veh/h	1781	3616	27	1781	3554	1585	783	661	1585	1781	1870	1585
Grp Volume(v), veh/h	179	535	561	18	747	130	20	0	22	129	4	170
Grp Sat Flow(s),veh/h/ln	1781	1777	1866	1781	1777	1585	1444	0	1585	1781	1870	1585
Q Serve(g_s), s	5.0	18.2	18.2	0.6	12.2	4.1	0.0	0.0	0.6	4.5	0.1	4.2
Cycle Q Clear(g_c), s	5.0	18.2	18.2	0.6	12.2	4.1	0.5	0.0	0.6	4.5	0.1	4.2
Prop In Lane	1.00		0.01	1.00		1.00	0.60		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	565	593	38	919	410	512	0	460	144	829	702
V/C Ratio(X)	1.25	0.95	0.95	0.47	0.81	0.32	0.04	0.00	0.05	0.90	0.00	0.24
Avail Cap(c_a), veh/h	144	565	593	144	1031	460	512	0	460	144	829	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	20.7	20.7	30.0	21.6	18.6	15.8	0.0	15.9	28.3	9.6	10.8
Incr Delay (d2), s/veh	156.2	25.3	24.5	8.7	4.6	0.4	0.1	0.0	0.2	46.4	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	10.4	10.8	0.3	5.0	1.4	0.2	0.0	0.2	3.6	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	184.7	46.0	45.2	38.7	26.2	19.0	15.9	0.0	16.1	74.7	9.6	11.6
LnGrp LOS	F	D	D	D	C	B	B	A	B	E	A	B
Approach Vol, veh/h		1275			895			42			303	
Approach Delay, s/veh		65.1			25.4			16.0			38.4	
Approach LOS		E			C			B			D	
Timer - Assigned Phs	1	2	3	4	6	7	8					
Phs Duration (G+Y+Rc), s	9.5	22.5	5.8	24.2	32.0	9.5	20.5					
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	18.0	5.0	18.0					
Max Q Clear Time (g_c+I1), s	6.5	2.6	2.6	20.2	6.2	7.0	14.2					
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.4	0.0	1.8					
Intersection Summary												
HCM 6th Ctrl Delay			46.9									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	156	406	127	135	702	33	171	218	60	58	269	97
Future Volume (veh/h)	156	406	127	135	702	33	171	218	60	58	269	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	441	138	147	763	36	186	237	65	63	292	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	1010	451	175	1010	451	796	978	262	455	910	320
Arrive On Green	0.10	0.28	0.28	0.10	0.28	0.28	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1916	2770	743	1077	2577	907
Grp Volume(v), veh/h	170	441	138	147	763	36	186	150	152	63	199	198
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	958	1777	1737	1077	1777	1707
Q Serve(g_s), s	4.9	5.2	3.5	4.1	10.0	0.8	4.0	3.0	3.2	2.2	4.2	4.3
Cycle Q Clear(g_c), s	4.9	5.2	3.5	4.1	10.0	0.8	8.3	3.0	3.2	5.4	4.2	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		0.53
Lane Grp Cap(c), veh/h	175	1010	451	175	1010	451	796	627	613	455	627	603
V/C Ratio(X)	0.97	0.44	0.31	0.84	0.76	0.08	0.23	0.24	0.25	0.14	0.32	0.33
Avail Cap(c_a), veh/h	175	1254	559	175	1254	559	796	627	613	455	627	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	14.9	14.3	22.6	16.6	13.4	15.1	11.7	11.7	13.6	12.0	12.1
Incr Delay (d2), s/veh	60.0	0.3	0.4	29.2	2.1	0.1	0.7	0.9	1.0	0.6	1.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	1.8	1.1	2.9	3.6	0.3	0.8	1.1	1.1	0.5	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.0	15.2	14.7	51.8	18.7	13.4	15.8	12.6	12.7	14.3	13.4	13.5
LnGrp LOS	F	B	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		749			946			488			460	
Approach Delay, s/veh		30.5			23.7			13.8			13.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	9.5	19.0		22.5	9.5	19.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		10.3	6.1	7.2		7.4	6.9	12.0				
Green Ext Time (p_c), s		1.6	0.0	2.4		1.8	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				22.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↗	↗	↗	↗↗	↗	↗↗	↗↗		↗	↗↗	
Traffic Volume (veh/h)	149	891	158	101	556	47	115	238	106	74	186	72
Future Volume (veh/h)	149	891	158	101	556	47	115	238	106	74	186	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	162	968	172	110	604	51	125	259	115	80	202	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	1148	512	141	1091	487	876	826	356	399	865	323
Arrive On Green	0.09	0.32	0.32	0.08	0.31	0.31	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2132	2417	1043	1009	2531	946
Grp Volume(v), veh/h	162	968	172	110	604	51	125	188	186	80	140	140
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1066	1777	1683	1009	1777	1700
Q Serve(g_s), s	4.8	13.3	4.3	3.2	7.5	1.2	2.4	4.1	4.3	3.4	3.0	3.1
Cycle Q Clear(g_c), s	4.8	13.3	4.3	3.2	7.5	1.2	5.5	4.1	4.3	7.7	3.0	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		0.56
Lane Grp Cap(c), veh/h	169	1148	512	141	1091	487	876	607	575	399	607	581
V/C Ratio(X)	0.96	0.84	0.34	0.78	0.55	0.10	0.14	0.31	0.32	0.20	0.23	0.24
Avail Cap(c_a), veh/h	169	1214	542	169	1214	542	876	607	575	399	607	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	16.6	13.5	23.8	15.2	13.1	14.4	12.8	12.8	15.7	12.4	12.4
Incr Delay (d2), s/veh	56.7	5.3	0.4	17.7	0.4	0.1	0.3	1.3	1.5	1.1	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	5.2	1.3	1.9	2.5	0.4	0.5	1.5	1.5	0.8	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.4	21.9	13.9	41.5	15.7	13.2	14.7	14.1	14.3	16.8	13.3	13.4
LnGrp LOS	F	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1302			765			499			360	
Approach Delay, s/veh		28.2			19.2			14.3			14.1	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	8.7	21.5		22.5	9.5	20.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		7.5	5.2	15.3		9.7	6.8	9.5				
Green Ext Time (p_c), s		2.0	0.0	1.7		1.2	0.0	2.6				
Intersection Summary												
HCM 6th Ctrl Delay				21.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑↗	
Traffic Volume (veh/h)	30	414	82	87	694	147	135	318	73	83	266	34
Future Volume (veh/h)	30	414	82	87	694	147	135	318	73	83	266	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	436	86	92	731	155	142	335	77	87	280	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	826	368	231	940	419	268	1152	514	225	1431	179
Arrive On Green	0.03	0.23	0.23	0.07	0.26	0.26	0.08	0.32	0.32	0.07	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4595	576
Grp Volume(v), veh/h	32	436	86	92	731	155	142	335	77	87	206	110
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1767
Q Serve(g_s), s	1.0	6.2	2.5	1.5	11.0	4.6	2.3	4.1	2.0	1.4	2.6	2.7
Cycle Q Clear(g_c), s	1.0	6.2	2.5	1.5	11.0	4.6	2.3	4.1	2.0	1.4	2.6	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	62	826	368	231	940	419	268	1152	514	225	1060	550
V/C Ratio(X)	0.52	0.53	0.23	0.40	0.78	0.37	0.53	0.29	0.15	0.39	0.19	0.20
Avail Cap(c_a), veh/h	154	1107	494	299	1107	494	299	1152	514	299	1060	550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	19.4	18.0	25.8	19.7	17.3	25.6	14.6	13.9	25.9	14.6	14.6
Incr Delay (d2), s/veh	6.5	0.5	0.3	1.1	3.0	0.5	1.6	0.6	0.6	1.1	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.3	0.8	0.6	4.3	1.5	0.9	1.5	0.7	0.5	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	19.9	18.3	27.0	22.7	17.9	27.2	15.2	14.5	27.0	15.0	15.4
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		554			978			554			403	
Approach Delay, s/veh		20.5			22.3			18.2			17.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	23.2	8.4	17.9	9.0	22.5	6.5	19.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.4	6.1	3.5	8.2	4.3	4.7	3.0	13.0				
Green Ext Time (p_c), s	0.0	1.7	0.0	2.1	0.0	1.4	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				20.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑↗	
Traffic Volume (veh/h)	52	858	162	111	507	144	145	259	111	151	393	38
Future Volume (veh/h)	52	858	162	111	507	144	145	259	111	151	393	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	903	171	117	534	152	153	273	117	159	414	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	1005	448	239	1077	480	256	1018	454	258	1362	130
Arrive On Green	0.05	0.28	0.28	0.07	0.30	0.30	0.07	0.29	0.29	0.07	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4742	451
Grp Volume(v), veh/h	55	903	171	117	534	152	153	273	117	159	295	159
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1789
Q Serve(g_s), s	1.9	15.3	5.4	2.0	7.7	4.6	2.7	3.7	3.6	2.8	4.3	4.4
Cycle Q Clear(g_c), s	1.9	15.3	5.4	2.0	7.7	4.6	2.7	3.7	3.6	2.8	4.3	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	87	1005	448	239	1077	480	256	1018	454	258	977	514
V/C Ratio(X)	0.63	0.90	0.38	0.49	0.50	0.32	0.60	0.27	0.26	0.62	0.30	0.31
Avail Cap(c_a), veh/h	142	1018	454	275	1077	480	275	1018	454	275	977	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	21.6	18.1	28.2	18.0	16.9	28.2	17.3	17.3	28.2	17.5	17.5
Incr Delay (d2), s/veh	7.2	10.6	0.5	1.5	0.4	0.4	3.1	0.6	1.4	3.7	0.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.0	1.8	0.8	2.8	1.5	1.1	1.4	1.3	1.2	1.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	32.2	18.6	29.7	18.3	17.2	31.3	18.0	18.6	31.9	18.3	19.1
LnGrp LOS	D	C	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		1129			803			543			613	
Approach Delay, s/veh		30.4			19.8			21.9			22.0	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	22.5	8.9	22.3	9.2	22.5	7.6	23.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.8	5.7	4.0	17.3	4.7	6.4	3.9	9.7				
Green Ext Time (p_c), s	0.0	1.5	0.0	0.4	0.0	2.0	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay			24.5									
HCM 6th LOS			C									

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

03/18/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	453	96	168	863	0	133	0	137	0	0	1
Future Volume (vph)	4	453	96	168	863	0	133	0	137	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.92	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1520	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1520	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	477	101	177	908	0	140	0	144	0	0	1
RTOR Reduction (vph)	0	0	73	0	0	0	0	65	63	0	1	0
Lane Group Flow (vph)	4	477	28	177	908	0	98	30	28	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.8	16.4	16.4	5.1	20.7		18.3	18.3	18.3		0.9	
Effective Green, g (s)	0.8	16.4	16.4	5.1	20.7		18.3	18.3	18.3		0.9	
Actuated g/C Ratio	0.01	0.28	0.28	0.09	0.35		0.31	0.31	0.31		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	988	442	298	1247		524	473	468		46	
v/s Ratio Prot	0.00	0.13		c0.05	c0.26		c0.06	0.02			c0.00	
v/s Ratio Perm			0.02						0.02			
v/c Ratio	0.17	0.48	0.06	0.59	0.73		0.19	0.06	0.06		0.00	
Uniform Delay, d1	28.6	17.6	15.5	25.8	16.5		14.8	14.2	14.2		28.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.3	0.4	0.1	3.2	2.2		0.8	0.3	0.2		0.0	
Delay (s)	31.9	18.0	15.6	29.0	18.7		15.6	14.4	14.4		28.5	
Level of Service	C	B	B	C	B		B	B	B		C	
Approach Delay (s)		17.7			20.4			14.8			28.5	
Approach LOS		B			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			18.8				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.49									
Actuated Cycle Length (s)			58.7				Sum of lost time (s)				18.0	
Intersection Capacity Utilization			51.0%				ICU Level of Service				A	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↗	↖	↖↖	↗↗		↖	↖↖	↖		↗↗	
Traffic Volume (vph)	4	971	159	214	653	1	124	1	331	0	2	0
Future Volume (vph)	4	971	159	214	653	1	124	1	331	0	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3538		1681	1455	1504		3539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3538		1681	1455	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	1022	167	225	687	1	131	1	348	0	2	0
RTOR Reduction (vph)	0	0	98	0	0	0	0	120	130	0	0	0
Lane Group Flow (vph)	4	1022	69	225	688	0	118	61	51	0	2	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2			6	
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	411	425		55	
v/s Ratio Prot	0.00	c0.29		c0.07	c0.19		c0.07	0.04			c0.00	
v/s Ratio Perm			0.04						0.03			
v/c Ratio	0.17	0.84	0.13	0.84	0.48		0.25	0.15	0.12		0.04	
Uniform Delay, d1	31.2	19.5	14.5	29.1	14.0		17.7	17.2	17.0		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.3	5.5	0.1	20.0	0.3		1.2	0.8	0.6		0.3	
Delay (s)	34.5	25.0	14.6	49.1	14.3		19.0	17.9	17.6		31.3	
Level of Service	C	C	B	D	B		B	B	B		C	
Approach Delay (s)		23.6			22.9			18.1			31.3	
Approach LOS		C			C			B			C	

Intersection Summary

HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	6	3	6	5	21	3	550	25	21	646	2
Future Vol, veh/h	0	6	3	6	5	21	3	550	25	21	646	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	3	7	5	23	3	598	27	23	702	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1381	1380	703	1372	1368	612	704	0	0	625	0	0
Stage 1	749	749	-	618	618	-	-	-	-	-	-	-
Stage 2	632	631	-	754	750	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	121	144	438	123	147	493	894	-	-	956	-	-
Stage 1	404	419	-	477	481	-	-	-	-	-	-	-
Stage 2	468	474	-	401	419	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	110	140	438	115	143	493	894	-	-	956	-	-
Mov Cap-2 Maneuver	110	140	-	115	143	-	-	-	-	-	-	-
Stage 1	403	409	-	476	480	-	-	-	-	-	-	-
Stage 2	440	473	-	382	409	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	26		21.9		0		0.3	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	894	-	-	181	247	956	-
HCM Lane V/C Ratio	0.004	-	-	0.054	0.141	0.024	-
HCM Control Delay (s)	9	-	-	26	21.9	8.9	-
HCM Lane LOS	A	-	-	D	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.5	0.1	-

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	4	7	5	19	6	37	7	579	16	16	458	1
Future Vol, veh/h	4	7	5	19	6	37	7	579	16	16	458	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	8	5	21	7	40	8	629	17	17	498	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1210	1195	499	1193	1187	638	499	0	0	646	0	0
Stage 1	533	533	-	654	654	-	-	-	-	-	-	-
Stage 2	677	662	-	539	533	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	159	186	572	164	188	477	1065	-	-	939	-	-
Stage 1	531	525	-	456	463	-	-	-	-	-	-	-
Stage 2	443	459	-	527	525	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	139	181	572	154	183	477	1065	-	-	939	-	-
Mov Cap-2 Maneuver	139	181	-	154	183	-	-	-	-	-	-	-
Stage 1	527	516	-	452	459	-	-	-	-	-	-	-
Stage 2	397	455	-	505	516	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	23.7		23.2		0.1		0.3	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1065	-	-	210	265	939	-
HCM Lane V/C Ratio	0.007	-	-	0.083	0.254	0.019	-
HCM Control Delay (s)	8.4	-	-	23.7	23.2	8.9	-
HCM Lane LOS	A	-	-	C	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	1	0.1	-

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	52	9	45	70	17	10	194	50	18	152	12
Future Vol, veh/h	17	52	9	45	70	17	10	194	50	18	152	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	57	10	49	76	18	11	211	54	20	165	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	9.6	10.3	9.7
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	22%	34%	10%
Vol Thru, %	76%	67%	53%	84%
Vol Right, %	20%	12%	13%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	254	78	132	182
LT Vol	10	17	45	18
Through Vol	194	52	70	152
RT Vol	50	9	17	12
Lane Flow Rate	276	85	143	198
Geometry Grp	1	1	1	1
Degree of Util (X)	0.357	0.123	0.205	0.265
Departure Headway (Hd)	4.652	5.22	5.147	4.829
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	768	680	692	738
Service Time	2.714	3.307	3.226	2.897
HCM Lane V/C Ratio	0.359	0.125	0.207	0.268
HCM Control Delay	10.3	9	9.6	9.7
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.6	0.4	0.8	1.1

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	83	6	74	86	21	15	145	72	20	198	14
Future Vol, veh/h	8	83	6	74	86	21	15	145	72	20	198	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	90	7	80	93	23	16	158	78	22	215	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	10.7	10.7	11
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	8%	41%	9%
Vol Thru, %	62%	86%	48%	85%
Vol Right, %	31%	6%	12%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	232	97	181	232
LT Vol	15	8	74	20
Through Vol	145	83	86	198
RT Vol	72	6	21	14
Lane Flow Rate	252	105	197	252
Geometry Grp	1	1	1	1
Degree of Util (X)	0.349	0.163	0.296	0.359
Departure Headway (Hd)	4.985	5.553	5.423	5.13
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	721	646	663	701
Service Time	3.013	3.588	3.454	3.158
HCM Lane V/C Ratio	0.35	0.163	0.297	0.359
HCM Control Delay	10.7	9.7	10.7	11
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	1.6	0.6	1.2	1.6

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	78	12	13	185	0	13	0	8	1	1	1
Future Vol, veh/h	2	78	12	13	185	0	13	0	8	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	85	13	14	201	0	14	0	9	1	1	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	8.4	7.6	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	62%	2%	7%	33%
Vol Thru, %	0%	85%	93%	33%
Vol Right, %	38%	13%	0%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	92	198	3
LT Vol	13	2	13	1
Through Vol	0	78	185	1
RT Vol	8	12	0	1
Lane Flow Rate	23	100	215	3
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.113	0.243	0.004
Departure Headway (Hd)	4.512	4.066	4.067	4.507
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	873	880	799
Service Time	2.512	2.13	2.107	2.508
HCM Lane V/C Ratio	0.029	0.115	0.244	0.004
HCM Control Delay	7.6	7.7	8.4	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	1	0

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	262	29	22	175	7	16	2	13	4	2	3
Future Vol, veh/h	2	262	29	22	175	7	16	2	13	4	2	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	285	32	24	190	8	17	2	14	4	2	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	9	8.2	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	1%	11%	44%
Vol Thru, %	6%	89%	86%	22%
Vol Right, %	42%	10%	3%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	293	204	9
LT Vol	16	2	22	4
Through Vol	2	262	175	2
RT Vol	13	29	7	3
Lane Flow Rate	34	318	222	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.046	0.374	0.268	0.014
Departure Headway (Hd)	4.961	4.223	4.359	5.036
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	722	857	827	711
Service Time	2.99	2.223	2.374	3.067
HCM Lane V/C Ratio	0.047	0.371	0.268	0.014
HCM Control Delay	8.2	9.7	9	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.7	1.1	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt
























03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↕		↖	↗	
Traffic Volume (veh/h)	33	68	9	148	160	83	37	413	71	46	418	35
Future Volume (veh/h)	33	68	9	148	160	83	37	413	71	46	418	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	72	9	156	168	87	39	435	75	48	440	37
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	131	16	268	281	238	467	1094	187	456	1219	102
Arrive On Green	0.08	0.08	0.08	0.15	0.15	0.15	0.04	0.36	0.36	0.05	0.37	0.37
Sat Flow, veh/h	1781	1630	204	1781	1870	1585	1781	3034	520	1781	3319	278
Grp Volume(v), veh/h	35	0	81	156	168	87	39	254	256	48	235	242
Grp Sat Flow(s),veh/h/ln	1781	0	1834	1781	1870	1585	1781	1777	1777	1781	1777	1820
Q Serve(g_s), s	0.9	0.0	2.1	4.1	4.2	2.5	0.7	5.3	5.4	0.8	4.8	4.8
Cycle Q Clear(g_c), s	0.9	0.0	2.1	4.1	4.2	2.5	0.7	5.3	5.4	0.8	4.8	4.8
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.29	1.00		0.15
Lane Grp Cap(c), veh/h	143	0	147	268	281	238	467	641	641	456	653	669
V/C Ratio(X)	0.25	0.00	0.55	0.58	0.60	0.37	0.08	0.40	0.40	0.11	0.36	0.36
Avail Cap(c_a), veh/h	642	0	661	642	674	571	571	641	641	547	653	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	22.1	19.8	19.8	19.1	9.3	11.9	11.9	9.3	11.5	11.5
Incr Delay (d2), s/veh	0.9	0.0	3.2	2.0	2.0	0.9	0.1	1.8	1.9	0.1	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.9	1.7	1.8	0.9	0.2	2.0	2.0	0.3	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	0.0	25.3	21.8	21.8	20.0	9.4	13.7	13.8	9.4	13.1	13.0
LnGrp LOS	C	A	C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		116			411			549			525	
Approach Delay, s/veh		24.4			21.4			13.5			12.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	22.5		8.5	6.6	22.8		12.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.8	7.4		4.1	2.7	6.8		6.2				
Green Ext Time (p_c), s	0.0	2.1		0.3	0.0	2.0		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				16.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	160	20	107	98	41	23	381	178	102	369	53
Future Volume (veh/h)	46	160	20	107	98	41	23	381	178	102	369	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	168	21	113	103	43	24	401	187	107	388	56
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	258	236	30	196	206	174	461	793	365	430	1191	171
Arrive On Green	0.14	0.14	0.14	0.11	0.11	0.11	0.03	0.34	0.34	0.07	0.38	0.38
Sat Flow, veh/h	1781	1630	204	1781	1870	1585	1781	2363	1088	1781	3120	447
Grp Volume(v), veh/h	48	0	189	113	103	43	24	300	288	107	220	224
Grp Sat Flow(s),veh/h/ln	1781	0	1834	1781	1870	1585	1781	1777	1674	1781	1777	1790
Q Serve(g_s), s	1.3	0.0	5.3	3.2	2.8	1.3	0.5	7.3	7.4	2.0	4.7	4.8
Cycle Q Clear(g_c), s	1.3	0.0	5.3	3.2	2.8	1.3	0.5	7.3	7.4	2.0	4.7	4.8
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.65	1.00		0.25
Lane Grp Cap(c), veh/h	258	0	266	196	206	174	461	596	562	430	678	683
V/C Ratio(X)	0.19	0.00	0.71	0.58	0.50	0.25	0.05	0.50	0.51	0.25	0.32	0.33
Avail Cap(c_a), veh/h	598	0	615	598	627	532	577	596	562	464	678	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	21.9	22.7	22.5	21.8	11.1	14.3	14.3	10.5	11.7	11.7
Incr Delay (d2), s/veh	0.3	0.0	3.5	2.7	1.9	0.7	0.0	3.0	3.3	0.3	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	2.2	1.4	1.2	0.5	0.2	2.9	2.8	0.7	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	25.4	25.4	24.4	22.6	11.1	17.3	17.6	10.8	13.0	13.0
LnGrp LOS	C	A	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		237			259			612			551	
Approach Delay, s/veh		24.4			24.5			17.2			12.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	22.5		12.3	6.0	25.0		10.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	4.0	9.4		7.3	2.5	6.8		5.2				
Green Ext Time (p_c), s	0.0	2.2		0.7	0.0	1.8		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				17.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 17: Arrow Rt & Monte Vista Ave

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↖↗↘		↗	↗↘	
Traffic Volume (veh/h)	42	142	17	55	231	60	36	402	41	28	398	51
Future Volume (veh/h)	42	142	17	55	231	60	36	402	41	28	398	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	149	18	58	243	63	38	423	43	29	419	54
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	553	66	99	341	289	142	1760	176	59	1676	212
Arrive On Green	0.05	0.17	0.17	0.06	0.18	0.18	0.04	0.37	0.37	0.03	0.37	0.37
Sat Flow, veh/h	1781	3198	381	1781	1870	1585	3456	4717	472	1781	4590	580
Grp Volume(v), veh/h	44	82	85	58	243	63	38	303	163	29	309	164
Grp Sat Flow(s),veh/h/ln	1781	1777	1802	1781	1870	1585	1728	1702	1785	1781	1702	1766
Q Serve(g_s), s	1.2	2.0	2.0	1.6	6.0	1.7	0.5	3.0	3.1	0.8	3.1	3.2
Cycle Q Clear(g_c), s	1.2	2.0	2.0	1.6	6.0	1.7	0.5	3.0	3.1	0.8	3.1	3.2
Prop In Lane	1.00		0.21	1.00		1.00	1.00		0.26	1.00		0.33
Lane Grp Cap(c), veh/h	82	307	311	99	341	289	142	1270	666	59	1243	645
V/C Ratio(X)	0.54	0.27	0.27	0.59	0.71	0.22	0.27	0.24	0.24	0.49	0.25	0.25
Avail Cap(c_a), veh/h	181	649	658	181	683	579	351	1270	666	181	1243	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	17.7	17.7	22.7	18.9	17.2	22.9	10.6	10.7	23.4	10.9	10.9
Incr Delay (d2), s/veh	5.4	0.5	0.5	5.4	2.8	0.4	1.0	0.4	0.9	6.1	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.7	0.7	0.7	2.4	0.5	0.2	0.9	1.1	0.4	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	18.1	18.2	28.1	21.7	17.5	23.9	11.1	11.5	29.6	11.4	11.9
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		211			364			504			502	
Approach Delay, s/veh		20.3			22.0			12.2			12.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	22.9	7.2	13.0	6.5	22.5	6.8	13.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.8	5.1	3.6	4.0	2.5	5.2	3.2	8.0				
Green Ext Time (p_c), s	0.0	2.1	0.0	0.6	0.0	2.2	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				15.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

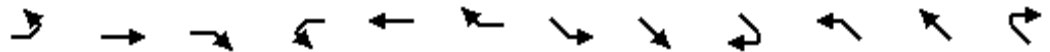
03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↖↗↘		↗	↖↗↘	
Traffic Volume (veh/h)	59	292	40	65	113	37	31	400	67	41	547	52
Future Volume (veh/h)	59	292	40	65	113	37	31	400	67	41	547	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	307	42	68	119	39	33	421	71	43	576	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	503	68	110	306	259	128	1619	267	80	1779	168
Arrive On Green	0.06	0.16	0.16	0.06	0.16	0.16	0.04	0.37	0.37	0.05	0.37	0.37
Sat Flow, veh/h	1781	3144	426	1781	1870	1585	3456	4416	727	1781	4745	449
Grp Volume(v), veh/h	62	172	177	68	119	39	33	322	170	43	412	219
Grp Sat Flow(s),veh/h/ln	1781	1777	1794	1781	1870	1585	1728	1702	1739	1781	1702	1790
Q Serve(g_s), s	1.7	4.4	4.5	1.8	2.8	1.0	0.5	3.3	3.4	1.2	4.2	4.3
Cycle Q Clear(g_c), s	1.7	4.4	4.5	1.8	2.8	1.0	0.5	3.3	3.4	1.2	4.2	4.3
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.42	1.00		0.25
Lane Grp Cap(c), veh/h	104	284	287	110	306	259	128	1248	638	80	1276	671
V/C Ratio(X)	0.60	0.61	0.62	0.62	0.39	0.15	0.26	0.26	0.27	0.53	0.32	0.33
Avail Cap(c_a), veh/h	181	651	658	181	686	581	352	1248	638	181	1276	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	19.2	19.2	22.5	18.3	17.6	23.0	10.9	10.9	22.9	10.9	10.9
Incr Delay (d2), s/veh	5.4	2.1	2.2	5.6	0.8	0.3	1.1	0.5	1.0	5.4	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.7	1.7	0.8	1.1	0.3	0.2	1.0	1.1	0.5	1.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	21.3	21.4	28.1	19.2	17.9	24.0	11.4	11.9	28.3	11.6	12.2
LnGrp LOS	C	C	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		411			226			525			674	
Approach Delay, s/veh		22.3			21.6			12.4			12.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	22.5	7.5	12.4	6.3	22.9	7.4	12.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.2	5.4	3.8	6.5	2.5	6.3	3.7	4.8				
Green Ext Time (p_c), s	0.0	2.3	0.0	1.3	0.0	2.8	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				15.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

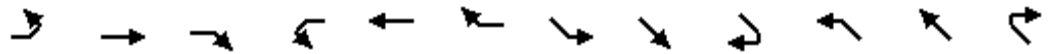
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	57	54	47	20	50	16	15	559	47	34	471	21
Future Volume (veh/h)	57	54	47	20	50	16	15	559	47	34	471	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	59	51	22	54	17	16	608	51	37	512	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	70	553	91	172	553	35	653	554	71	656	29
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.02	0.35	0.35	0.04	0.37	0.37
Sat Flow, veh/h	4	201	1585	2	492	1585	1781	1870	1585	1781	1776	80
Grp Volume(v), veh/h	121	0	51	76	0	17	16	608	51	37	0	535
Grp Sat Flow(s),veh/h/ln	205	0	1585	494	0	1585	1781	1870	1585	1781	0	1856
Q Serve(g_s), s	0.1	0.0	1.1	0.1	0.0	0.4	0.5	16.2	1.1	1.0	0.0	13.2
Cycle Q Clear(g_c), s	18.0	0.0	1.1	18.0	0.0	0.4	0.5	16.2	1.1	1.0	0.0	13.2
Prop In Lane	0.51		1.00	0.29		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	177	0	553	262	0	553	35	653	554	71	0	685
V/C Ratio(X)	0.68	0.00	0.09	0.29	0.00	0.03	0.45	0.93	0.09	0.52	0.00	0.78
Avail Cap(c_a), veh/h	178	0	554	263	0	554	173	653	554	173	0	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.1	0.0	11.3	13.1	0.0	11.0	25.0	16.2	11.3	24.3	0.0	14.4
Incr Delay (d2), s/veh	10.2	0.0	0.1	0.6	0.0	0.0	8.8	21.8	0.3	5.8	0.0	8.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.4	0.6	0.0	0.1	0.3	9.9	0.4	0.5	0.0	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	0.0	11.4	13.7	0.0	11.1	33.8	37.9	11.6	30.1	0.0	23.0
LnGrp LOS	C	A	B	B	A	B	C	D	B	C	A	C
Approach Vol, veh/h		172			93			675				572
Approach Delay, s/veh		21.8			13.2			35.9				23.5
Approach LOS		C			B			D				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	23.5		22.5	6.6	22.5		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.5	15.2		20.0	3.0	18.2		20.0				
Green Ext Time (p_c), s	0.0	1.0		0.0	0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			28.2									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	22	31	41	46	30	53	9	421	22	19	532	21
Future Volume (veh/h)	22	31	41	46	30	53	9	421	22	19	532	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	34	45	50	33	58	10	458	24	21	578	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	142	400	163	76	400	23	772	654	45	760	30
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.01	0.41	0.41	0.03	0.43	0.43
Sat Flow, veh/h	74	562	1585	121	303	1585	1781	1870	1585	1781	1786	71
Grp Volume(v), veh/h	58	0	45	83	0	58	10	458	24	21	0	601
Grp Sat Flow(s),veh/h/ln	636	0	1585	424	0	1585	1781	1870	1585	1781	0	1858
Q Serve(g_s), s	0.3	0.0	1.0	0.7	0.0	1.2	0.2	8.3	0.4	0.5	0.0	12.0
Cycle Q Clear(g_c), s	10.0	0.0	1.0	10.3	0.0	1.2	0.2	8.3	0.4	0.5	0.0	12.0
Prop In Lane	0.41		1.00	0.60		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	277	0	400	239	0	400	23	772	654	45	0	790
V/C Ratio(X)	0.21	0.00	0.11	0.35	0.00	0.14	0.44	0.59	0.04	0.47	0.00	0.76
Avail Cap(c_a), veh/h	532	0	654	479	0	654	204	772	654	204	0	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.2	0.0	12.5	14.4	0.0	12.7	21.4	10.0	7.6	21.0	0.0	10.6
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.9	0.0	0.2	12.6	3.3	0.1	7.3	0.0	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.3	0.6	0.0	0.4	0.2	3.4	0.1	0.3	0.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.5	0.0	12.7	15.3	0.0	12.8	33.9	13.3	7.7	28.2	0.0	17.5
LnGrp LOS	B	A	B	B	A	B	C	B	A	C	A	B
Approach Vol, veh/h		103			141			492				622
Approach Delay, s/veh		13.2			14.3			13.4				17.8
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	23.0		15.9	5.6	22.5		15.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.2	14.0		12.0	2.5	10.3		12.3				
Green Ext Time (p_c), s	0.0	1.5		0.2	0.0	1.9		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			15.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	16	37	68	35	45	58	536	140	33	506	26
Future Volume (veh/h)	7	16	37	68	35	45	58	536	140	33	506	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	17	40	74	38	49	63	583	152	36	550	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	280	221	187	335	88	113	489	916	776	448	825	42
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.06	0.49	0.49	0.04	0.47	0.47
Sat Flow, veh/h	1310	1870	1585	1346	742	956	1781	1870	1585	1781	1764	90
Grp Volume(v), veh/h	8	17	40	74	0	87	63	583	152	36	0	578
Grp Sat Flow(s),veh/h/ln	1310	1870	1585	1346	0	1698	1781	1870	1585	1781	0	1854
Q Serve(g_s), s	0.2	0.3	0.9	2.0	0.0	1.8	0.7	8.9	2.1	0.4	0.0	9.3
Cycle Q Clear(g_c), s	2.1	0.3	0.9	2.3	0.0	1.8	0.7	8.9	2.1	0.4	0.0	9.3
Prop In Lane	1.00		1.00	1.00		0.56	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	280	221	187	335	0	201	489	916	776	448	0	867
V/C Ratio(X)	0.03	0.08	0.21	0.22	0.00	0.43	0.13	0.64	0.20	0.08	0.00	0.67
Avail Cap(c_a), veh/h	737	874	741	805	0	794	607	916	776	605	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	15.1	15.4	16.1	0.0	15.8	5.6	7.3	5.5	5.6	0.0	7.9
Incr Delay (d2), s/veh	0.0	0.1	0.6	0.3	0.0	1.5	0.1	3.4	0.6	0.1	0.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.3	0.6	0.0	0.7	0.2	3.0	0.6	0.1	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	15.3	15.9	16.5	0.0	17.2	5.7	10.7	6.1	5.7	0.0	12.0
LnGrp LOS	B	B	B	B	A	B	A	B	A	A	A	B
Approach Vol, veh/h		65			161			798			614	
Approach Delay, s/veh		15.8			16.9			9.4			11.6	
Approach LOS		B			B			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	23.4		9.1	7.0	22.5		9.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.4	10.9		4.1	2.7	11.3		4.3				
Green Ext Time (p_c), s	0.0	2.5		0.1	0.0	2.2		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				11.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↗		↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	28	46	88	114	55	89	103	455	119	37	434	64
Future Volume (veh/h)	28	46	88	114	55	89	103	455	119	37	434	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	50	96	124	60	97	112	495	129	40	472	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	345	292	368	119	192	467	858	727	457	664	98
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.09	0.46	0.46	0.04	0.42	0.42
Sat Flow, veh/h	1230	1870	1585	1242	643	1040	1781	1870	1585	1781	1592	236
Grp Volume(v), veh/h	30	50	96	124	0	157	112	495	129	40	0	542
Grp Sat Flow(s),veh/h/ln	1230	1870	1585	1242	0	1683	1781	1870	1585	1781	0	1828
Q Serve(g_s), s	1.0	1.0	2.3	4.0	0.0	3.6	1.4	8.4	2.1	0.5	0.0	10.6
Cycle Q Clear(g_c), s	4.6	1.0	2.3	5.0	0.0	3.6	1.4	8.4	2.1	0.5	0.0	10.6
Prop In Lane	1.00		1.00	1.00		0.62	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	291	345	292	368	0	311	467	858	727	457	0	762
V/C Ratio(X)	0.10	0.14	0.33	0.34	0.00	0.51	0.24	0.58	0.18	0.09	0.00	0.71
Avail Cap(c_a), veh/h	577	780	661	657	0	702	521	858	727	584	0	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.9	14.7	15.3	16.8	0.0	15.8	7.2	8.6	6.9	6.9	0.0	10.4
Incr Delay (d2), s/veh	0.2	0.2	0.6	0.5	0.0	1.3	0.3	2.8	0.5	0.1	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.4	0.8	1.1	0.0	1.3	0.4	3.1	0.6	0.2	0.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	14.9	15.9	17.4	0.0	17.1	7.5	11.4	7.4	7.0	0.0	16.0
LnGrp LOS	B	B	B	B	A	B	A	B	A	A	A	B
Approach Vol, veh/h		176			281			736			582	
Approach Delay, s/veh		16.0			17.2			10.1			15.4	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	24.3		12.5	8.2	22.5		12.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.5	10.4		6.6	3.4	12.6		7.0				
Green Ext Time (p_c), s	0.0	2.2		0.5	0.0	1.7		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				13.5								
HCM 6th LOS				B								

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	19	69	29	22	86	39	29	219	27	35	154	13
Future Vol, veh/h	19	69	29	22	86	39	29	219	27	35	154	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	75	32	24	93	42	32	238	29	38	167	14
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	9.7	9.8	13.2	11.7
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	11%	100%	0%	0%	100%	0%	0%	17%
Vol Thru, %	80%	0%	100%	0%	0%	100%	0%	76%
Vol Right, %	10%	0%	0%	100%	0%	0%	100%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	275	19	69	29	22	86	39	202
LT Vol	29	19	0	0	22	0	0	35
Through Vol	219	0	69	0	0	86	0	154
RT Vol	27	0	0	29	0	0	39	13
Lane Flow Rate	299	21	75	32	24	93	42	220
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.467	0.039	0.132	0.049	0.045	0.163	0.066	0.353
Departure Headway (Hd)	5.626	6.849	6.338	5.622	6.793	6.282	5.566	5.784
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	643	523	566	636	527	571	643	624
Service Time	3.354	4.59	4.078	3.361	4.531	4.019	3.303	3.514
HCM Lane V/C Ratio	0.465	0.04	0.133	0.05	0.046	0.163	0.065	0.353
HCM Control Delay	13.2	9.9	10	8.7	9.9	10.2	8.7	11.7
HCM Lane LOS	B	A	A	A	A	B	A	B
HCM 95th-tile Q	2.5	0.1	0.5	0.2	0.1	0.6	0.2	1.6

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑	↖	↗	↑	↖		↕			↕	
Traffic Vol, veh/h	32	109	65	40	123	40	40	124	48	40	247	44
Future Vol, veh/h	32	109	65	40	123	40	40	124	48	40	247	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	118	71	43	134	43	43	135	52	43	268	48
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10.9	11.3	13.6	18.6
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	19%	100%	0%	0%	100%	0%	0%	12%
Vol Thru, %	58%	0%	100%	0%	0%	100%	0%	75%
Vol Right, %	23%	0%	0%	100%	0%	0%	100%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	212	32	109	65	40	123	40	331
LT Vol	40	32	0	0	40	0	0	40
Through Vol	124	0	109	0	0	123	0	247
RT Vol	48	0	0	65	0	0	40	44
Lane Flow Rate	230	35	118	71	43	134	43	360
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.409	0.071	0.226	0.12	0.089	0.254	0.074	0.619
Departure Headway (Hd)	6.386	7.368	6.853	6.132	7.365	6.85	6.129	6.197
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	560	483	520	579	483	520	580	579
Service Time	4.166	5.161	4.645	3.924	5.158	4.642	3.92	3.966
HCM Lane V/C Ratio	0.411	0.072	0.227	0.123	0.089	0.258	0.074	0.622
HCM Control Delay	13.6	10.7	11.7	9.8	10.9	12	9.4	18.6
HCM Lane LOS	B	B	B	A	B	B	A	C
HCM 95th-tile Q	2	0.2	0.9	0.4	0.3	1	0.2	4.2

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	0	41	6	0	1	110	468	5	1	451	108
Future Volume (veh/h)	42	0	41	6	0	1	110	468	5	1	451	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	0	45	7	0	1	120	509	5	1	490	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	157	133	19	0	17	565	1865	18	595	1838	820
Arrive On Green	0.08	0.00	0.08	0.01	0.00	0.01	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	813	3605	35	887	3554	1585
Grp Volume(v), veh/h	46	0	45	7	0	1	120	251	263	1	490	117
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	813	1777	1864	887	1777	1585
Q Serve(g_s), s	0.8	0.0	0.9	0.1	0.0	0.0	3.4	2.8	2.8	0.0	2.7	1.3
Cycle Q Clear(g_c), s	0.8	0.0	0.9	0.1	0.0	0.0	6.1	2.8	2.8	2.8	2.7	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	150	157	133	19	0	17	565	919	964	595	1838	820
V/C Ratio(X)	0.31	0.00	0.34	0.37	0.00	0.06	0.21	0.27	0.27	0.00	0.27	0.14
Avail Cap(c_a), veh/h	921	968	820	921	0	820	565	919	964	595	1838	820
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	15.0	17.1	0.0	17.0	6.4	4.7	4.7	5.5	4.7	4.4
Incr Delay (d2), s/veh	1.1	0.0	1.5	11.4	0.0	1.4	0.9	0.7	0.7	0.0	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.3	0.1	0.0	0.0	0.4	0.6	0.6	0.0	0.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	0.0	16.5	28.5	0.0	18.5	7.3	5.5	5.4	5.5	5.1	4.7
LnGrp LOS	B	A	B	C	A	B	A	A	A	A	A	A
Approach Vol, veh/h		91			8			634			608	
Approach Delay, s/veh		16.3			27.2			5.8			5.0	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		7.4		22.5		4.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		8.1		2.9		4.8		2.1				
Green Ext Time (p_c), s		2.6		0.2		2.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			6.3									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	3	111	3	0	1	64	417	5	2	389	93
Future Volume (veh/h)	141	3	111	3	0	1	64	417	5	2	389	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	153	3	121	3	0	1	70	453	5	2	423	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	270	228	10	0	9	560	1750	19	579	1727	770
Arrive On Green	0.14	0.14	0.14	0.01	0.00	0.01	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	878	3600	40	934	3554	1585
Grp Volume(v), veh/h	153	3	121	3	0	1	70	223	235	2	423	101
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	878	1777	1863	934	1777	1585
Q Serve(g_s), s	3.0	0.1	2.6	0.1	0.0	0.0	1.9	2.7	2.7	0.0	2.6	1.3
Cycle Q Clear(g_c), s	3.0	0.1	2.6	0.1	0.0	0.0	4.4	2.7	2.7	2.8	2.6	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	257	270	228	10	0	9	560	864	905	579	1727	770
V/C Ratio(X)	0.60	0.01	0.53	0.31	0.00	0.12	0.12	0.26	0.26	0.00	0.24	0.13
Avail Cap(c_a), veh/h	866	909	770	866	0	770	560	864	905	579	1727	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.8	13.6	14.7	18.3	0.0	18.3	6.9	5.6	5.6	6.4	5.6	5.2
Incr Delay (d2), s/veh	2.2	0.0	1.9	17.0	0.0	5.8	0.5	0.7	0.7	0.0	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.9	0.1	0.0	0.0	0.3	0.7	0.7	0.0	0.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	13.6	16.6	35.4	0.0	24.2	7.3	6.3	6.3	6.4	5.9	5.6
LnGrp LOS	B	B	B	D	A	C	A	A	A	A	A	A
Approach Vol, veh/h		277			4			528			526	
Approach Delay, s/veh		16.8			32.6			6.4			5.8	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		9.8		22.5		4.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		6.4		5.0		4.8		2.1				
Green Ext Time (p_c), s		2.2		0.7		2.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			8.4									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

22: Arrow Hwy & Indian Hill Blvd

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	369	137	157	687	88	139	558	155	69	464	41
Future Volume (veh/h)	80	369	137	157	687	88	139	558	155	69	464	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	401	149	171	747	96	151	607	168	75	504	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	863	385	147	931	415	147	1135	506	105	978	87
Arrive On Green	0.06	0.24	0.24	0.08	0.26	0.26	0.08	0.32	0.32	0.06	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3300	294
Grp Volume(v), veh/h	87	401	149	171	747	96	151	607	168	75	271	278
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1817
Q Serve(g_s), s	2.9	5.9	4.8	5.0	11.9	2.9	5.0	8.5	4.9	2.5	7.7	7.7
Cycle Q Clear(g_c), s	2.9	5.9	4.8	5.0	11.9	2.9	5.0	8.5	4.9	2.5	7.7	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	113	863	385	147	931	415	147	1135	506	105	526	538
V/C Ratio(X)	0.77	0.46	0.39	1.17	0.80	0.23	1.03	0.53	0.33	0.71	0.51	0.52
Avail Cap(c_a), veh/h	147	1053	470	147	1053	470	147	1135	506	147	526	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	19.6	19.2	27.9	21.0	17.6	27.9	17.0	15.7	28.1	17.8	17.8
Incr Delay (d2), s/veh	16.8	0.4	0.6	126.1	4.1	0.3	82.5	1.8	1.8	9.3	3.6	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.3	1.7	7.1	5.1	1.0	5.4	3.4	1.9	1.3	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	20.0	19.9	154.0	25.0	17.9	110.4	18.8	17.5	37.4	21.3	21.3
LnGrp LOS	D	C	B	F	C	B	F	B	B	D	C	C
Approach Vol, veh/h		637			1014			926			624	
Approach Delay, s/veh		23.4			46.1			33.5			23.2	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.1	23.9	9.5	19.3	9.5	22.5	8.3	20.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.5	10.5	7.0	7.9	7.0	9.7	4.9	13.9				
Green Ext Time (p_c), s	0.0	2.8	0.0	2.3	0.0	2.0	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay			33.5									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

22: Arrow Hwy & Indian Hill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘	↗↗	↘	↘	↗↗	↘
Traffic Volume (veh/h)	98	845	152	182	475	56	136	469	162	125	527	56
Future Volume (veh/h)	98	845	152	182	475	56	136	469	162	125	527	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	107	918	165	198	516	61	148	510	176	136	573	61
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	999	446	139	1004	448	139	999	446	139	912	97
Arrive On Green	0.08	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3241	344
Grp Volume(v), veh/h	107	918	165	198	516	61	148	510	176	136	314	320
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1808
Q Serve(g_s), s	3.8	16.0	5.3	5.0	7.8	1.8	5.0	7.7	5.7	4.9	9.9	9.9
Cycle Q Clear(g_c), s	3.8	16.0	5.3	5.0	7.8	1.8	5.0	7.7	5.7	4.9	9.9	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	137	999	446	139	1004	448	139	999	446	139	500	509
V/C Ratio(X)	0.78	0.92	0.37	1.42	0.51	0.14	1.06	0.51	0.39	0.98	0.63	0.63
Avail Cap(c_a), veh/h	139	999	446	139	1004	448	139	999	446	139	500	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	22.3	18.5	29.5	19.3	17.1	29.5	19.3	18.6	29.4	20.1	20.1
Incr Delay (d2), s/veh	24.2	13.1	0.5	226.8	0.4	0.1	94.2	1.9	2.6	69.1	5.9	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	7.9	1.9	10.8	3.0	0.6	5.7	3.2	2.3	4.7	4.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	35.3	19.0	256.3	19.7	17.3	123.7	21.2	21.2	98.6	25.9	25.9
LnGrp LOS	D	D	B	F	B	B	F	C	C	F	C	C
Approach Vol, veh/h		1190			775			834			770	
Approach Delay, s/veh		34.7			80.0			39.4			38.8	
Approach LOS		C			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.5	22.5	9.5	22.5	9.4	22.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	6.9	9.7	7.0	18.0	7.0	11.9	5.8	9.8				
Green Ext Time (p_c), s	0.0	2.6	0.0	0.0	0.0	2.0	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay			46.5									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘			↕		↗	↗	↗
Traffic Volume (veh/h)	54	491	33	38	836	71	37	124	15	65	93	65
Future Volume (veh/h)	54	491	33	38	836	71	37	124	15	65	93	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	534	36	41	909	77	40	135	16	71	101	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	1311	88	393	1286	109	188	556	59	705	763	647
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	571	3379	227	842	3316	281	219	1362	145	1236	1870	1585
Grp Volume(v), veh/h	59	280	290	41	487	499	191	0	0	71	101	71
Grp Sat Flow(s),veh/h/ln	571	1777	1829	842	1777	1820	1726	0	0	1236	1870	1585
Q Serve(g_s), s	4.3	5.1	5.1	1.6	10.2	10.2	0.0	0.0	0.0	0.0	1.5	1.2
Cycle Q Clear(g_c), s	14.5	5.1	5.1	6.7	10.2	10.2	3.0	0.0	0.0	1.1	1.5	1.2
Prop In Lane	1.00		0.12	1.00		0.15	0.21		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	253	689	710	393	689	706	803	0	0	705	763	647
V/C Ratio(X)	0.23	0.41	0.41	0.10	0.71	0.71	0.24	0.00	0.00	0.10	0.13	0.11
Avail Cap(c_a), veh/h	264	725	746	410	725	743	803	0	0	705	763	647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	9.8	9.8	12.3	11.4	11.4	8.6	0.0	0.0	8.1	8.2	8.1
Incr Delay (d2), s/veh	0.5	0.4	0.4	0.1	3.0	2.9	0.7	0.0	0.0	0.3	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.6	1.7	0.3	3.7	3.7	1.1	0.0	0.0	0.4	0.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	10.2	10.2	12.4	14.4	14.3	9.3	0.0	0.0	8.3	8.5	8.4
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		629			1027			191			243	
Approach Delay, s/veh		10.9			14.3			9.3			8.4	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		21.6		22.5		21.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		5.0		16.5		3.5		12.2				
Green Ext Time (p_c), s		0.9		0.6		0.8		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				12.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	961	29	23	579	45	31	50	47	113	121	111
Future Volume (veh/h)	66	961	29	23	579	45	31	50	47	113	121	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	1045	32	25	629	49	34	54	51	123	132	121
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	1334	41	227	1266	99	212	319	248	724	774	656
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	762	3520	108	524	3341	260	264	770	599	1289	1870	1585
Grp Volume(v), veh/h	72	527	550	25	334	344	139	0	0	123	132	121
Grp Sat Flow(s),veh/h/ln	762	1777	1851	524	1777	1824	1634	0	0	1289	1870	1585
Q Serve(g_s), s	3.5	11.4	11.4	1.9	6.3	6.3	0.0	0.0	0.0	0.0	1.9	2.1
Cycle Q Clear(g_c), s	9.7	11.4	11.4	13.3	6.3	6.3	2.2	0.0	0.0	1.9	1.9	2.1
Prop In Lane	1.00		0.06	1.00		0.14	0.24		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	344	674	702	227	674	691	779	0	0	724	774	656
V/C Ratio(X)	0.21	0.78	0.78	0.11	0.50	0.50	0.18	0.00	0.00	0.17	0.17	0.18
Avail Cap(c_a), veh/h	371	735	766	245	735	755	779	0	0	724	774	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	11.9	11.9	17.8	10.3	10.3	8.1	0.0	0.0	8.0	8.0	8.1
Incr Delay (d2), s/veh	0.3	5.1	4.9	0.2	0.6	0.6	0.5	0.0	0.0	0.5	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.4	4.6	0.2	2.0	2.1	0.7	0.0	0.0	0.7	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	17.0	16.8	18.0	10.9	10.9	8.6	0.0	0.0	8.5	8.5	8.7
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1149			703			139			376	
Approach Delay, s/veh		16.8			11.1			8.6			8.6	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		21.0		22.5		21.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		4.2		13.4		4.1		15.3				
Green Ext Time (p_c), s		0.6		2.8		1.3		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				13.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕		↔	↕		↔	↕		↔	↕	↔
Traffic Volume (veh/h)	139	372	34	33	624	84	91	346	47	52	218	206
Future Volume (veh/h)	139	372	34	33	624	84	91	346	47	52	218	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	151	404	37	36	678	91	99	376	51	57	237	224
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	1003	91	67	820	110	127	988	133	90	549	465
Arrive On Green	0.08	0.30	0.30	0.04	0.26	0.26	0.07	0.31	0.31	0.05	0.29	0.29
Sat Flow, veh/h	1781	3293	300	1781	3149	422	1781	3147	424	1781	1870	1585
Grp Volume(v), veh/h	151	217	224	36	382	387	99	211	216	57	237	224
Grp Sat Flow(s),veh/h/ln	1781	1777	1816	1781	1777	1794	1781	1777	1794	1781	1870	1585
Q Serve(g_s), s	5.0	5.9	6.0	1.2	12.4	12.5	3.4	5.7	5.8	1.9	6.3	7.1
Cycle Q Clear(g_c), s	5.0	5.9	6.0	1.2	12.4	12.5	3.4	5.7	5.8	1.9	6.3	7.1
Prop In Lane	1.00		0.17	1.00		0.24	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	145	541	553	67	463	467	127	558	563	90	549	465
V/C Ratio(X)	1.04	0.40	0.40	0.54	0.83	0.83	0.78	0.38	0.38	0.63	0.43	0.48
Avail Cap(c_a), veh/h	145	541	553	145	521	527	145	558	563	145	549	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	16.9	16.9	29.0	21.4	21.4	28.0	16.4	16.4	28.6	17.5	17.8
Incr Delay (d2), s/veh	85.6	0.5	0.5	6.7	9.6	9.6	21.0	2.0	2.0	7.1	2.5	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	2.1	2.2	0.6	5.7	5.8	2.1	2.4	2.4	1.0	2.9	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	113.8	17.4	17.4	35.7	31.0	31.0	49.0	18.3	18.4	35.6	20.0	21.4
LnGrp LOS	F	B	B	D	C	C	D	B	B	D	B	C
Approach Vol, veh/h		592			805			526			518	
Approach Delay, s/veh		42.0			31.2			24.1			22.3	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	23.8	6.8	23.2	8.9	22.5	9.5	20.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.9	7.8	3.2	8.0	5.4	9.1	7.0	14.5				
Green Ext Time (p_c), s	0.0	1.7	0.0	1.6	0.0	1.5	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay				30.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	895	51	63	424	51	73	280	56	84	291	170
Future Volume (veh/h)	154	895	51	63	424	51	73	280	56	84	291	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	167	973	55	68	461	55	79	304	61	91	316	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	1002	57	100	856	102	107	866	171	116	557	472
Arrive On Green	0.08	0.29	0.29	0.06	0.27	0.27	0.06	0.29	0.29	0.07	0.30	0.30
Sat Flow, veh/h	1781	3419	193	1781	3199	380	1781	2956	585	1781	1870	1585
Grp Volume(v), veh/h	167	506	522	68	255	261	79	181	184	91	316	185
Grp Sat Flow(s),veh/h/ln	1781	1777	1836	1781	1777	1802	1781	1777	1765	1781	1870	1585
Q Serve(g_s), s	5.0	17.3	17.3	2.3	7.5	7.6	2.7	4.9	5.1	3.1	8.8	5.7
Cycle Q Clear(g_c), s	5.0	17.3	17.3	2.3	7.5	7.6	2.7	4.9	5.1	3.1	8.8	5.7
Prop In Lane	1.00		0.11	1.00		0.21	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	145	520	538	100	475	482	107	520	517	116	557	472
V/C Ratio(X)	1.15	0.97	0.97	0.68	0.54	0.54	0.74	0.35	0.36	0.78	0.57	0.39
Avail Cap(c_a), veh/h	145	520	538	145	520	528	145	520	517	145	557	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	21.5	21.5	28.5	19.3	19.3	28.4	17.1	17.1	28.3	18.2	17.1
Incr Delay (d2), s/veh	121.5	32.1	31.5	8.0	0.9	0.9	12.2	1.8	1.9	19.3	4.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	10.7	10.9	1.1	2.9	2.9	1.4	2.1	2.1	1.9	4.2	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	149.7	53.6	53.0	36.5	20.2	20.2	40.6	18.9	19.1	47.6	22.4	19.6
LnGrp LOS	F	D	D	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		1195			584			444			592	
Approach Delay, s/veh		66.8			22.1			22.8			25.4	
Approach LOS		E			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	22.5	7.9	22.5	8.2	22.8	9.5	20.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.1	7.1	4.3	19.3	4.7	10.8	7.0	9.6				
Green Ext Time (p_c), s	0.0	1.5	0.0	0.0	0.0	1.6	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				41.9								
HCM 6th LOS				D								

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	122	48	403	389	22
Future Vol, veh/h	30	122	48	403	389	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	133	52	438	423	24

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	758	224	447	0	-	0
Stage 1	435	-	-	-	-	-
Stage 2	323	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	343	779	1110	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	706	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	327	779	1110	-	-	-
Mov Cap-2 Maneuver	327	-	-	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	706	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1110	-	612	-	-
HCM Lane V/C Ratio	0.047	-	0.27	-	-
HCM Control Delay (s)	8.4	-	13	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.1	-	-

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↑↑	↑↑	
Traffic Vol, veh/h	44	121	58	464	414	30
Future Vol, veh/h	44	121	58	464	414	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	132	63	504	450	33

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	845	242	483	0	-	0
Stage 1	467	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	302	759	1076	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	663	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	284	759	1076	-	-	-
Mov Cap-2 Maneuver	284	-	-	-	-	-
Stage 1	562	-	-	-	-	-
Stage 2	663	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.4	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1076	-	525	-	-
HCM Lane V/C Ratio	0.059	-	0.342	-	-
HCM Control Delay (s)	8.6	-	15.4	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.5	-	-

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

03/18/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↗	↖	↕		↖	↗	↖
Traffic Volume (veh/h)	0	0	0	65	0	73	0	427	51	56	506	1
Future Volume (veh/h)	0	0	0	65	0	73	0	427	51	56	506	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	68	0	77	0	449	54	59	533	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	120	194	164	5	1525	183	211	3462	6
Arrive On Green	0.00	0.00	0.00	0.07	0.00	0.10	0.00	0.48	0.48	0.06	0.66	0.66
Sat Flow, veh/h	0	-58771	0	1781	1870	1585	1781	3196	383	3456	5263	10
Grp Volume(v), veh/h	0	0	0	68	0	77	0	249	254	59	345	189
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1802	1728	1702	1869
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	1.7	0.0	3.2	3.2	0.6	1.5	1.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.4	0.0	1.7	0.0	3.2	3.2	0.6	1.5	1.5
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.21	1.00		0.01
Lane Grp Cap(c), veh/h	0	5	0	120	194	164	5	848	860	211	2239	1229
V/C Ratio(X)	0.00	0.00	0.00	0.57	0.00	0.47	0.00	0.29	0.30	0.28	0.15	0.15
Avail Cap(c_a), veh/h	0	893	0	236	893	757	236	848	860	458	2239	1229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	17.0	0.0	15.9	0.0	6.0	6.0	16.9	2.5	2.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.1	0.0	2.1	0.0	0.9	0.9	0.7	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.6	0.0	0.6	0.0	0.8	0.8	0.2	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	21.2	0.0	18.0	0.0	6.9	6.9	17.6	2.6	2.7
LnGrp LOS	A	A	A	C	A	B	A	A	A	B	A	A
Approach Vol, veh/h		0			145			503			593	
Approach Delay, s/veh		0.0			19.5			6.9			4.1	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	22.5	7.0	1.4	0.0	29.3		8.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.6	5.2	3.4	0.0	0.0	3.5		3.7				
Green Ext Time (p_c), s	0.0	2.2	0.0	0.0	0.0	2.9		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				7.0								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↑	↖	↗	↕		↖	↕	↖
Traffic Volume (veh/h)	0	0	0	85	0	71	1	550	70	34	634	0
Future Volume (veh/h)	0	0	0	85	0	71	1	550	70	34	634	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	89	0	75	1	579	74	36	667	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	144	205	174	5	1537	196	144	2682	0
Arrive On Green	0.00	0.00	0.00	0.08	0.00	0.11	0.00	0.48	0.48	0.04	0.53	0.00
Sat Flow, veh/h	0	-64051	0	1781	1870	1585	1781	3170	404	3456	5274	0
Grp Volume(v), veh/h	0	0	0	89	0	75	1	324	329	36	667	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1798	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	1.6	0.0	4.3	4.3	0.4	2.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	0.0	1.6	0.0	4.3	4.3	0.4	2.6	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.22	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	144	205	174	5	861	871	144	2682	0
V/C Ratio(X)	0.00	0.00	0.00	0.62	0.00	0.43	0.21	0.38	0.38	0.25	0.25	0.00
Avail Cap(c_a), veh/h	0	907	0	240	907	768	240	861	871	465	2682	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.5	0.0	15.4	18.5	6.0	6.0	17.2	4.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.3	0.0	1.7	20.2	1.3	1.2	0.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.8	0.0	0.6	0.0	1.3	1.3	0.1	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	20.8	0.0	17.1	38.7	7.3	7.3	18.1	5.0	0.0
LnGrp LOS	A	A	A	C	A	B	D	A	A	B	A	A
Approach Vol, veh/h		0			164			654			703	
Approach Delay, s/veh		0.0			19.1			7.3			5.7	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	22.5	7.5	1.1	4.6	24.0		8.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.4	6.3	3.8	0.0	2.0	4.6		3.6				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.0	3.8		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				7.8								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

03/19/2024



























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	394	72	206	485	53	94	37	189	67	67	64
Future Volume (veh/h)	41	394	72	206	485	53	94	37	189	67	67	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	428	78	224	527	58	102	40	205	73	73	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	722	322	194	941	420	611	698	623	501	713	611
Arrive On Green	0.05	0.20	0.20	0.11	0.26	0.26	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1245	1777	1585	1135	1814	1554
Grp Volume(v), veh/h	45	428	78	224	527	58	102	40	205	73	71	72
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1245	1777	1585	1135	1777	1591
Q Serve(g_s), s	1.1	5.0	1.9	5.0	5.9	1.3	2.6	0.6	4.1	2.2	1.2	1.3
Cycle Q Clear(g_c), s	1.1	5.0	1.9	5.0	5.9	1.3	3.9	0.6	4.1	6.3	1.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Lane Grp Cap(c), veh/h	85	722	322	194	941	420	611	698	623	501	698	625
V/C Ratio(X)	0.53	0.59	0.24	1.15	0.56	0.14	0.17	0.06	0.33	0.15	0.10	0.11
Avail Cap(c_a), veh/h	194	1396	623	194	1396	623	611	698	623	501	698	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	16.5	15.3	20.4	14.5	12.9	10.1	8.6	9.7	11.9	8.8	8.8
Incr Delay (d2), s/veh	5.1	0.8	0.4	111.5	0.5	0.1	0.6	0.2	1.4	0.6	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.8	0.6	7.9	2.1	0.4	0.7	0.2	1.4	0.6	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	17.3	15.7	131.9	15.1	13.0	10.7	8.8	11.1	12.5	9.1	9.2
LnGrp LOS	C	B	B	F	B	B	B	A	B	B	A	A
Approach Vol, veh/h		551			809			347			216	
Approach Delay, s/veh		17.8			47.3			10.7			10.3	
Approach LOS		B			D			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	9.5	13.8		22.5	6.7	16.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		6.1	7.0	7.0		8.3	3.1	7.9				
Green Ext Time (p_c), s		1.4	0.0	2.3		0.7	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay				28.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	425	77	195	437	43	95	47	158	56	54	55
Future Volume (veh/h)	35	425	77	195	437	43	95	47	158	56	54	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	462	84	212	475	47	103	51	172	61	59	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	759	338	192	993	443	618	689	615	518	689	615
Arrive On Green	0.04	0.21	0.21	0.11	0.28	0.28	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1273	1777	1585	1158	1777	1585
Grp Volume(v), veh/h	38	462	84	212	475	47	103	51	172	61	59	60
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1273	1777	1585	1158	1777	1585
Q Serve(g_s), s	1.0	5.5	2.0	5.0	5.2	1.0	2.6	0.8	3.5	1.8	1.0	1.1
Cycle Q Clear(g_c), s	1.0	5.5	2.0	5.0	5.2	1.0	3.7	0.8	3.5	5.2	1.0	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	759	338	192	993	443	618	689	615	518	689	615
V/C Ratio(X)	0.51	0.61	0.25	1.10	0.48	0.11	0.17	0.07	0.28	0.12	0.09	0.10
Avail Cap(c_a), veh/h	192	1378	615	192	1378	615	618	689	615	518	689	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	16.5	15.2	20.7	13.9	12.4	10.2	9.0	9.8	11.5	9.0	9.0
Incr Delay (d2), s/veh	5.3	0.8	0.4	95.8	0.4	0.1	0.6	0.2	1.1	0.5	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.0	0.7	7.0	1.8	0.3	0.7	0.3	1.2	0.4	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	17.3	15.5	116.5	14.3	12.5	10.8	9.2	10.9	12.0	9.2	9.4
LnGrp LOS	C	B	B	F	B	B	B	A	B	B	A	A
Approach Vol, veh/h		584			734			326			180	
Approach Delay, s/veh		17.7			43.7			10.6			10.2	
Approach LOS		B			D			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	9.5	14.4		22.5	6.4	17.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		5.7	7.0	7.5		7.2	3.0	7.2				
Green Ext Time (p_c), s		1.3	0.0	2.5		0.6	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				26.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	71	496	65	84	474	81	103	88	70	89	81	137
Future Volume (veh/h)	71	496	65	84	474	81	103	88	70	89	81	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	539	71	91	515	88	112	96	76	97	88	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	848	378	133	872	389	631	734	622	624	734	622
Arrive On Green	0.07	0.24	0.24	0.07	0.25	0.25	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1309	1870	1585	1300	1870	1585
Grp Volume(v), veh/h	77	539	71	91	515	88	112	96	76	97	88	149
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1309	1870	1585	1300	1870	1585
Q Serve(g_s), s	1.9	6.2	1.6	2.3	5.9	2.0	2.7	1.5	1.4	2.4	1.4	2.9
Cycle Q Clear(g_c), s	1.9	6.2	1.6	2.3	5.9	2.0	4.1	1.5	1.4	3.9	1.4	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	848	378	133	872	389	631	734	622	624	734	622
V/C Ratio(X)	0.63	0.64	0.19	0.68	0.59	0.23	0.18	0.13	0.12	0.16	0.12	0.24
Avail Cap(c_a), veh/h	194	1394	622	194	1394	622	631	734	622	624	734	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	15.7	13.9	20.7	15.3	13.8	10.2	8.9	8.9	10.2	8.9	9.4
Incr Delay (d2), s/veh	5.4	0.8	0.2	6.0	0.6	0.3	0.6	0.4	0.4	0.5	0.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.3	0.5	1.1	2.1	0.7	0.7	0.6	0.5	0.6	0.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	16.5	14.2	26.7	15.9	14.1	10.8	9.3	9.3	10.7	9.2	10.3
LnGrp LOS	C	B	B	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		687			694			284			334	
Approach Delay, s/veh		17.3			17.1			9.9			10.1	
Approach LOS		B			B			A			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	7.9	15.4		22.5	7.6	15.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		6.1	4.3	8.2		5.9	3.9	7.9				
Green Ext Time (p_c), s		0.9	0.0	2.7		1.0	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay				15.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	62	516	60	81	399	65	96	83	68	84	113	128
Future Volume (veh/h)	62	516	60	81	399	65	96	83	68	84	113	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	561	65	88	434	71	104	90	74	91	123	139
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	869	387	131	907	405	596	729	618	625	729	618
Arrive On Green	0.06	0.24	0.24	0.07	0.26	0.26	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1268	1870	1585	1307	1870	1585
Grp Volume(v), veh/h	67	561	65	88	434	71	104	90	74	91	123	139
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1268	1870	1585	1307	1870	1585
Q Serve(g_s), s	1.7	6.5	1.5	2.2	4.8	1.6	2.7	1.4	1.4	2.2	2.0	2.7
Cycle Q Clear(g_c), s	1.7	6.5	1.5	2.2	4.8	1.6	4.7	1.4	1.4	3.6	2.0	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	869	387	131	907	405	596	729	618	625	729	618
V/C Ratio(X)	0.60	0.65	0.17	0.67	0.48	0.18	0.17	0.12	0.12	0.15	0.17	0.22
Avail Cap(c_a), veh/h	193	1385	618	193	1385	618	596	729	618	625	729	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	15.6	13.7	20.9	14.6	13.4	10.7	9.0	9.0	10.2	9.2	9.4
Incr Delay (d2), s/veh	5.2	0.8	0.2	5.9	0.4	0.2	0.6	0.3	0.4	0.5	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.4	0.5	1.0	1.7	0.5	0.7	0.5	0.5	0.6	0.8	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	16.5	13.9	26.8	15.0	13.6	11.4	9.4	9.4	10.7	9.7	10.3
LnGrp LOS	C	B	B	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		693			593			268			353	
Approach Delay, s/veh		17.2			16.6			10.2			10.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	7.9	15.8		22.5	7.4	16.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		6.7	4.2	8.5		5.6	3.7	6.8				
Green Ext Time (p_c), s		0.8	0.0	2.7		1.1	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				14.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

3: Monte Vista Ave/Padua Ave & Baseline Rd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	33	508	139	444	486	130	124	102	439	140	87	49
Future Volume (veh/h)	33	508	139	444	486	130	124	102	439	140	87	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	552	151	483	528	141	135	111	477	152	95	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	774	345	295	942	420	608	574	486	489	710	370
Arrive On Green	0.04	0.22	0.22	0.09	0.27	0.27	0.08	0.31	0.31	0.08	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2257	1178
Grp Volume(v), veh/h	36	552	151	483	528	141	135	111	477	152	73	75
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1658
Q Serve(g_s), s	1.2	8.4	4.8	5.0	7.5	4.2	3.0	2.6	17.5	3.3	1.7	1.9
Cycle Q Clear(g_c), s	1.2	8.4	4.8	5.0	7.5	4.2	3.0	2.6	17.5	3.3	1.7	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.71
Lane Grp Cap(c), veh/h	67	774	345	295	942	420	608	574	486	489	559	521
V/C Ratio(X)	0.53	0.71	0.44	1.64	0.56	0.34	0.22	0.19	0.98	0.31	0.13	0.14
Avail Cap(c_a), veh/h	152	1091	486	295	1091	486	624	574	486	492	559	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	21.3	19.8	26.8	18.6	17.4	12.1	15.0	20.2	12.0	14.4	14.4
Incr Delay (d2), s/veh	6.4	1.3	0.9	302.7	0.5	0.5	0.2	0.8	36.3	0.4	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.1	1.6	14.2	2.7	1.4	1.0	1.1	10.2	1.1	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	22.5	20.7	329.6	19.1	17.9	12.3	15.7	56.5	12.4	14.9	15.0
LnGrp LOS	C	C	C	F	B	B	B	B	E	B	B	B
Approach Vol, veh/h		739			1152			723			300	
Approach Delay, s/veh		22.7			149.1			42.0			13.6	
Approach LOS		C			F			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	22.5	9.5	17.3	8.9	22.9	6.7	20.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.3	19.5	7.0	10.4	5.0	3.9	3.2	9.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.3	0.0	0.6	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay				76.5								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/19/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	32	567	111	362	475	115	90	99	454	131	74	25
Future Volume (veh/h)	32	567	111	362	475	115	90	99	454	131	74	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	616	121	393	516	125	98	108	493	142	80	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	825	368	290	993	443	616	566	479	474	829	268
Arrive On Green	0.04	0.23	0.23	0.08	0.28	0.28	0.07	0.30	0.30	0.08	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2641	852
Grp Volume(v), veh/h	35	616	121	393	516	125	98	108	493	142	53	54
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1717
Q Serve(g_s), s	1.1	9.6	3.8	5.0	7.3	3.7	2.2	2.5	18.0	3.2	1.2	1.3
Cycle Q Clear(g_c), s	1.1	9.6	3.8	5.0	7.3	3.7	2.2	2.5	18.0	3.2	1.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	66	825	368	290	993	443	616	566	479	474	558	539
V/C Ratio(X)	0.53	0.75	0.33	1.35	0.52	0.28	0.16	0.19	1.03	0.30	0.09	0.10
Avail Cap(c_a), veh/h	150	1075	479	290	1075	479	646	566	479	483	558	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	21.2	19.0	27.3	18.1	16.8	12.5	15.4	20.8	12.4	14.4	14.5
Incr Delay (d2), s/veh	6.5	2.1	0.5	180.1	0.4	0.3	0.1	0.7	48.6	0.4	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.6	1.2	9.1	2.6	1.2	0.8	1.1	11.9	1.1	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	23.3	19.5	207.4	18.5	17.1	12.6	16.1	69.3	12.8	14.8	14.8
LnGrp LOS	C	C	B	F	B	B	B	B	F	B	B	B
Approach Vol, veh/h		772			1034			699			249	
Approach Delay, s/veh		23.2			90.1			53.2			13.7	
Approach LOS		C			F			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	22.5	9.5	18.3	8.5	23.2	6.7	21.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.2	20.0	7.0	11.6	4.2	3.3	3.1	9.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.4	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay			55.1									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	558	425	61	466	315	161	0	548	87	0	427
Future Volume (veh/h)	115	558	425	61	466	315	161	0	548	87	0	427
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	125	607	462	66	507	342	175	0	596	95	0	464
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	183	1437	641	122	1316	587	222	0	0	156	0	0
Arrive On Green	0.10	0.40	0.40	0.07	0.37	0.37	0.12	0.00	0.00	0.09	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	175		1781	95	
Grp Volume(v), veh/h	125	607	462	66	507	342	175	26.7		95	18.6	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	C		1781	B	
Q Serve(g_s), s	2.3	4.1	8.2	1.2	3.5	5.8	3.2			1.7		
Cycle Q Clear(g_c), s	2.3	4.1	8.2	1.2	3.5	5.8	3.2			1.7		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	183	1437	641	122	1316	587	222			156		
V/C Ratio(X)	0.68	0.42	0.72	0.54	0.39	0.58	0.79			0.61		
Avail Cap(c_a), veh/h	266	1907	851	266	1907	851	266			266		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	14.5	7.2	8.4	15.1	7.8	8.5	14.2			14.7		
Incr Delay (d2), s/veh	4.5	0.2	2.0	3.7	0.2	0.9	12.4			3.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	0.9	0.8	1.6	0.5	0.7	1.1	1.7			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	7.4	10.4	18.8	7.9	9.4	26.7			18.6		
LnGrp LOS	B	A	B	B	A	A	C			B		
Approach Vol, veh/h		1194			915							
Approach Delay, s/veh		9.8			9.3							
Approach LOS		A			A							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	7.4		6.8	18.1	8.7		7.9	16.9				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	5.0		5.0	18.0	5.0		5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.7		3.2	10.2	5.2		4.3	7.8				
Green Ext Time (p_c), s	0.0		0.0	3.3	0.0		0.0	3.1				
Intersection Summary												
HCM 6th Ctrl Delay				11.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘		↗↗	↘		↗
Traffic Volume (veh/h)	160	561	430	46	403	327	116	0	661	73	0	434
Future Volume (veh/h)	160	561	430	46	403	327	116	0	661	73	0	434
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	174	610	467	50	438	355	126	0	718	79	0	472
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	221	1478	659	100	1237	552	188	0	0	141	0	0
Arrive On Green	0.12	0.42	0.42	0.06	0.35	0.35	0.11	0.00	0.00	0.08	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	126		1781	79	
Grp Volume(v), veh/h	174	610	467	50	438	355	126	17.9		79	17.7	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	3.0	3.9	7.8	0.9	2.9	6.0	2.2			1.4		
Cycle Q Clear(g_c), s	3.0	3.9	7.8	0.9	2.9	6.0	2.2			1.4		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	221	1478	659	100	1237	552	188			141		
V/C Ratio(X)	0.79	0.41	0.71	0.50	0.35	0.64	0.67			0.56		
Avail Cap(c_a), veh/h	279	2003	893	279	2003	893	279			279		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	13.6	6.6	7.7	14.6	7.7	8.7	13.8			14.2		
Incr Delay (d2), s/veh	11.2	0.2	1.7	3.8	0.2	1.3	4.1			3.5		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	1.5	0.6	1.4	0.4	0.6	1.2	0.8			0.5		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.8	6.8	9.4	18.5	7.9	10.0	17.9			17.7		
LnGrp LOS	C	A	A	B	A	B	B			B		
Approach Vol, veh/h		1251			843							
Approach Delay, s/veh		10.2			9.4							
Approach LOS		B			A							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	7.0		6.3	17.8	7.9		8.5	15.6				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	5.0		5.0	18.0	5.0		5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.4		2.9	9.8	4.2		5.0	8.0				
Green Ext Time (p_c), s	0.0		0.0	3.5	0.0		0.0	2.8				
Intersection Summary												
HCM 6th Ctrl Delay				10.6								
HCM 6th LOS				B								

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	0	17	1	0	0	18	420	1	1	418	194
Future Volume (vph)	221	0	17	1	0	0	18	420	1	1	418	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1612	1504		1770		1770	3538		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.49	1.00	1.00
Satd. Flow (perm)	1681	1612	1504		1863		1770	3538		909	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	240	0	18	1	0	0	20	457	1	1	454	211
RTOR Reduction (vph)	0	104	14	0	0	0	0	0	0	0	0	115
Lane Group Flow (vph)	120	18	2	0	1	0	20	458	0	1	454	96
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	7.3	7.3	7.3		0.8		0.7	27.7		22.5	22.5	22.5
Effective Green, g (s)	7.3	7.3	7.3		0.8		0.7	27.7		22.5	22.5	22.5
Actuated g/C Ratio	0.15	0.15	0.15		0.02		0.01	0.56		0.46	0.46	0.46
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	248	238	222		30		25	1987		414	1615	722
v/s Ratio Prot	c0.07	0.01					0.01	c0.13			c0.13	
v/s Ratio Perm			0.00		c0.00					0.00		0.06
v/c Ratio	0.48	0.08	0.01		0.03		0.80	0.23		0.00	0.28	0.13
Uniform Delay, d1	19.3	18.1	17.9		23.9		24.2	5.4		7.3	8.4	7.8
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.5	0.1	0.0		0.5		95.2	0.3		0.0	0.4	0.4
Delay (s)	20.8	18.2	17.9		24.3		119.4	5.7		7.3	8.8	8.1
Level of Service	C	B	B		C		F	A		A	A	A
Approach Delay (s)		19.4			24.3			10.5			8.6	
Approach LOS		B			C			B			A	

Intersection Summary

HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	49.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	31.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	224	0	22	4	7	1	12	340	2	2	383	187
Future Volume (vph)	224	0	22	4	7	1	12	340	2	2	383	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1612	1504		1815		1770	3536		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.53	1.00	1.00
Satd. Flow (perm)	1681	1612	1504		1843		1770	3536		988	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	0	24	4	8	1	13	370	2	2	416	203
RTOR Reduction (vph)	0	106	19	0	1	0	0	0	0	0	0	110
Lane Group Flow (vph)	121	18	3	0	12	0	13	372	0	2	416	93
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	7.2	7.2	7.2		0.9		0.7	27.8		22.6	22.6	22.6
Effective Green, g (s)	7.2	7.2	7.2		0.9		0.7	27.8		22.6	22.6	22.6
Actuated g/C Ratio	0.15	0.15	0.15		0.02		0.01	0.56		0.46	0.46	0.46
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	245	234	219		33		25	1989		452	1619	724
v/s Ratio Prot	c0.07	0.01					0.01	c0.11			c0.12	
v/s Ratio Perm			0.00		c0.01					0.00		0.06
v/c Ratio	0.49	0.08	0.01		0.36		0.52	0.19		0.00	0.26	0.13
Uniform Delay, d1	19.4	18.2	18.1		24.0		24.2	5.3		7.3	8.2	7.7
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.6	0.1	0.0		6.7		18.1	0.2		0.0	0.4	0.4
Delay (s)	21.0	18.4	18.1		30.7		42.3	5.5		7.3	8.6	8.1
Level of Service	C	B	B		C		D	A		A	A	A
Approach Delay (s)		19.5			30.7			6.7			8.4	
Approach LOS		B			C			A			A	

Intersection Summary		
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.32	B
Actuated Cycle Length (s)	49.4	Sum of lost time (s)
Intersection Capacity Utilization	31.2%	18.0
Analysis Period (min)	15	ICU Level of Service
		A

c Critical Lane Group

HCM 6th Signalized Intersection Summary
6: Foothill Blvd & Indian Hill Blvd

03/19/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	589	130	138	606	80	173	254	136	122	227	65
Future Volume (veh/h)	56	589	130	138	606	80	173	254	136	122	227	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	640	141	150	659	87	188	276	148	133	247	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	760	167	143	1032	460	143	652	340	143	540	457
Arrive On Green	0.05	0.26	0.26	0.08	0.29	0.29	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1781	2896	637	1781	3554	1585	1781	2259	1177	1781	1870	1585
Grp Volume(v), veh/h	61	392	389	150	659	87	188	215	209	133	247	71
Grp Sat Flow(s),veh/h/ln	1781	1777	1756	1781	1777	1585	1781	1777	1659	1781	1870	1585
Q Serve(g_s), s	2.1	13.0	13.1	5.0	10.1	2.6	5.0	6.1	6.4	4.6	6.8	2.1
Cycle Q Clear(g_c), s	2.1	13.0	13.1	5.0	10.1	2.6	5.0	6.1	6.4	4.6	6.8	2.1
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	93	467	461	143	1032	460	143	513	479	143	540	457
V/C Ratio(X)	0.65	0.84	0.84	1.05	0.64	0.19	1.32	0.42	0.44	0.93	0.46	0.16
Avail Cap(c_a), veh/h	143	513	507	143	1032	460	143	513	479	143	540	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	21.8	21.8	28.7	19.3	16.6	28.7	18.0	18.1	28.5	18.2	16.5
Incr Delay (d2), s/veh	7.6	11.1	11.4	89.4	1.3	0.2	183.3	2.5	2.9	55.0	2.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.2	6.2	5.5	3.8	0.8	9.3	2.6	2.6	4.1	3.1	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	32.9	33.2	118.1	20.6	16.8	212.0	20.5	20.9	83.5	21.0	17.3
LnGrp LOS	D	C	C	F	C	B	F	C	C	F	C	B
Approach Vol, veh/h		842			896			612			451	
Approach Delay, s/veh		33.3			36.6			79.5			38.8	
Approach LOS		C			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.5	20.9	9.5	22.5	7.8	22.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	6.6	8.4	7.0	15.1	7.0	8.8	4.1	12.1				
Green Ext Time (p_c), s	0.0	1.7	0.0	1.3	0.0	1.1	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			45.3									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

6: Foothill Blvd & Indian Hill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	601	107	114	519	75	165	222	131	114	212	82
Future Volume (veh/h)	48	601	107	114	519	75	165	222	131	114	212	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	653	116	124	564	82	179	241	142	124	230	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	784	139	143	1040	464	143	632	359	143	542	459
Arrive On Green	0.05	0.26	0.26	0.08	0.29	0.29	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1781	3016	535	1781	3554	1585	1781	2183	1241	1781	1870	1585
Grp Volume(v), veh/h	52	384	385	124	564	82	179	194	189	124	230	89
Grp Sat Flow(s),veh/h/ln	1781	1777	1774	1781	1777	1585	1781	1777	1647	1781	1870	1585
Q Serve(g_s), s	1.8	12.7	12.7	4.3	8.3	2.4	5.0	5.4	5.7	4.3	6.2	2.6
Cycle Q Clear(g_c), s	1.8	12.7	12.7	4.3	8.3	2.4	5.0	5.4	5.7	4.3	6.2	2.6
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.75	1.00		1.00
Lane Grp Cap(c), veh/h	85	462	461	143	1040	464	143	515	477	143	542	459
V/C Ratio(X)	0.61	0.83	0.83	0.87	0.54	0.18	1.25	0.38	0.40	0.87	0.42	0.19
Avail Cap(c_a), veh/h	143	515	514	143	1040	464	143	515	477	143	542	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	21.7	21.7	28.2	18.5	16.4	28.6	17.6	17.7	28.2	17.9	16.6
Incr Delay (d2), s/veh	7.0	10.3	10.5	38.8	0.6	0.2	157.0	2.1	2.4	38.8	2.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.9	6.0	3.2	3.1	0.8	8.2	2.3	2.3	3.3	2.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	32.0	32.2	67.0	19.1	16.6	185.6	19.7	20.2	67.0	20.3	17.6
LnGrp LOS	D	C	C	E	B	B	F	B	C	E	C	B
Approach Vol, veh/h		821			770			562			443	
Approach Delay, s/veh		32.3			26.5			72.7			32.8	
Approach LOS		C			C			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.5	20.6	9.5	22.5	7.5	22.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	6.3	7.7	6.3	14.7	7.0	8.2	3.8	10.3				
Green Ext Time (p_c), s	0.0	1.6	0.0	1.4	0.0	1.1	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				39.4								
HCM 6th LOS				D								

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗			↗			↗
Traffic Vol, veh/h	44	784	54	71	760	11	0	0	102	0	0	45
Future Vol, veh/h	44	784	54	71	760	11	0	0	102	0	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	852	59	77	826	12	0	0	111	0	0	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	838	0	0	911	0	0	-	-	426	-	-	413
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	792	-	-	743	-	-	0	0	577	0	0	588
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	792	-	-	743	-	-	-	-	577	-	-	588
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.9			12.7			11.7		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	577	792	-	-	743	-	-	588
HCM Lane V/C Ratio	0.192	0.06	-	-	0.104	-	-	0.083
HCM Control Delay (s)	12.7	9.8	-	-	10.4	-	-	11.7
HCM Lane LOS	B	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0.3	-	-	0.3

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↘			↗			↘
Traffic Vol, veh/h	42	906	59	87	742	23	0	0	132	44	0	0
Future Vol, veh/h	42	906	59	87	742	23	0	0	132	44	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	985	64	95	807	25	0	0	143	48	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	832	0	0	1049	0	0	-	-	493	1582	-	404
Stage 1	-	-	-	-	-	-	-	-	-	997	-	-
Stage 2	-	-	-	-	-	-	-	-	-	585	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	796	-	-	659	-	-	0	0	522	73	0	596
Stage 1	-	-	-	-	-	-	0	0	-	262	0	-
Stage 2	-	-	-	-	-	-	0	0	-	464	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	796	-	-	659	-	-	-	-	522	~ 45	-	596
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	~ 45	-	-
Stage 1	-	-	-	-	-	-	-	-	-	247	-	-
Stage 2	-	-	-	-	-	-	-	-	-	317	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			1.2			14.5			0		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	522	796	-	-	659	-	-	-
HCM Lane V/C Ratio	0.275	0.057	-	-	0.143	-	-	-
HCM Control Delay (s)	14.5	9.8	-	-	11.4	-	-	0
HCM Lane LOS	B	A	-	-	B	-	-	A
HCM 95th %tile Q(veh)	1.1	0.2	-	-	0.5	-	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	9	863	24	35	831	10	30	5	24	26	8	0
Future Volume (veh/h)	9	863	24	35	831	10	30	5	24	26	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	938	26	38	903	11	33	5	26	28	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	1333	594	255	1349	16	416	89	259	596	172	0
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.42	0.42	0.42	0.42	0.42	0.00
Sat Flow, veh/h	611	3554	1585	583	3596	44	695	213	621	1079	414	0
Grp Volume(v), veh/h	10	938	26	38	446	468	64	0	0	37	0	0
Grp Sat Flow(s),veh/h/ln	611	1777	1585	583	1777	1862	1529	0	0	1493	0	0
Q Serve(g_s), s	0.6	9.7	0.5	2.6	9.1	9.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.7	9.7	0.5	12.2	9.1	9.1	1.0	0.0	0.0	0.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.52		0.41	0.76		0.00
Lane Grp Cap(c), veh/h	268	1333	594	255	666	699	763	0	0	768	0	0
V/C Ratio(X)	0.04	0.70	0.04	0.15	0.67	0.67	0.08	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	293	1481	660	279	740	776	763	0	0	768	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.3	11.5	8.6	16.7	11.3	11.3	7.6	0.0	0.0	7.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.4	0.0	0.3	2.0	1.9	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.9	0.1	0.3	2.8	3.0	0.3	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.4	12.8	8.6	16.9	13.3	13.2	7.8	0.0	0.0	7.6	0.0	0.0
LnGrp LOS	B	B	A	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		974			952			64			37	
Approach Delay, s/veh		12.7			13.4			7.8			7.6	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		20.7		22.5		20.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		3.0		11.7		2.5		14.2				
Green Ext Time (p_c), s		0.2		3.2		0.1		2.0				
Intersection Summary												
HCM 6th Ctrl Delay				12.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	882	22	30	895	10	11	2	22	10	4	0
Future Volume (veh/h)	13	882	22	30	895	10	11	2	22	10	4	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	959	24	33	973	11	12	2	24	11	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	250	1343	599	252	1360	15	264	86	412	578	189	0
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.41	0.41	0.41	0.41	0.41	0.00
Sat Flow, veh/h	572	3554	1585	586	3599	41	373	206	992	1047	456	0
Grp Volume(v), veh/h	14	959	24	33	480	504	38	0	0	15	0	0
Grp Sat Flow(s),veh/h/ln	572	1777	1585	586	1777	1863	1571	0	0	1503	0	0
Q Serve(g_s), s	0.9	10.0	0.4	2.2	10.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	10.9	10.0	0.4	12.2	10.0	10.0	0.6	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.32		0.63	0.73		0.00
Lane Grp Cap(c), veh/h	250	1343	599	252	671	704	761	0	0	767	0	0
V/C Ratio(X)	0.06	0.71	0.04	0.13	0.72	0.72	0.05	0.00	0.00	0.02	0.00	0.00
Avail Cap(c_a), veh/h	271	1474	657	274	737	773	761	0	0	767	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.2	11.5	8.5	16.7	11.5	11.5	7.6	0.0	0.0	7.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.5	0.0	0.2	3.0	2.9	0.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.3	0.1	0.3	3.6	3.7	0.2	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	13.0	8.6	16.9	14.5	14.4	7.7	0.0	0.0	7.5	0.0	0.0
LnGrp LOS	B	B	A	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		997			1017			38			15	
Approach Delay, s/veh		12.9			14.5			7.7			7.5	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		20.9		22.5		20.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.6		12.9		2.2		14.2				
Green Ext Time (p_c), s		0.1		2.9		0.0		2.2				
Intersection Summary												
HCM 6th Ctrl Delay				13.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖		↖	↖	↖	↖	↖
Traffic Volume (veh/h)	158	820	17	16	689	118	5	6	20	105	5	159
Future Volume (veh/h)	158	820	17	16	689	118	5	6	20	105	5	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	891	18	17	749	128	5	7	22	114	5	173
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	1137	23	36	920	410	238	301	460	143	829	702
Arrive On Green	0.08	0.32	0.32	0.02	0.26	0.26	0.29	0.29	0.29	0.08	0.44	0.44
Sat Flow, veh/h	1781	3562	72	1781	3554	1585	536	1039	1585	1781	1870	1585
Grp Volume(v), veh/h	172	444	465	17	749	128	12	0	22	114	5	173
Grp Sat Flow(s),veh/h/ln	1781	1777	1857	1781	1777	1585	1575	0	1585	1781	1870	1585
Q Serve(g_s), s	5.0	14.1	14.1	0.6	12.3	4.0	0.0	0.0	0.6	3.9	0.1	4.2
Cycle Q Clear(g_c), s	5.0	14.1	14.1	0.6	12.3	4.0	0.3	0.0	0.6	3.9	0.1	4.2
Prop In Lane	1.00		0.04	1.00		1.00	0.42		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	567	593	36	920	410	539	0	460	143	829	702
V/C Ratio(X)	1.20	0.78	0.78	0.47	0.81	0.31	0.02	0.00	0.05	0.79	0.01	0.25
Avail Cap(c_a), veh/h	143	567	593	143	1030	460	539	0	460	143	829	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	19.2	19.2	30.1	21.6	18.5	15.7	0.0	15.9	28.0	9.7	10.8
Incr Delay (d2), s/veh	138.4	7.1	6.8	9.0	4.6	0.4	0.1	0.0	0.2	25.7	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	6.1	6.3	0.3	5.1	1.4	0.1	0.0	0.2	2.5	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	166.9	26.3	26.0	39.1	26.2	19.0	15.8	0.0	16.1	53.8	9.7	11.6
LnGrp LOS	F	C	C	D	C	B	B	A	B	D	A	B
Approach Vol, veh/h		1081			894			34			292	
Approach Delay, s/veh		48.5			25.4			16.0			28.1	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	5.8	24.3		32.0	9.5	20.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.9	2.6	2.6	16.1		6.2	7.0	14.3				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.0		0.4	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				36.5								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	757	11	16	714	106	9	3	15	82	1	140
Future Volume (veh/h)	138	757	11	16	714	106	9	3	15	82	1	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	150	823	12	17	776	115	10	3	16	89	1	152
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	1173	17	37	945	421	397	106	466	114	807	684
Arrive On Green	0.08	0.33	0.33	0.02	0.27	0.27	0.29	0.29	0.29	0.06	0.43	0.43
Sat Flow, veh/h	1781	3586	52	1781	3554	1585	996	361	1585	1781	1870	1585
Grp Volume(v), veh/h	150	408	427	17	776	115	13	0	16	89	1	152
Grp Sat Flow(s),veh/h/ln	1781	1777	1861	1781	1777	1585	1357	0	1585	1781	1870	1585
Q Serve(g_s), s	5.0	12.3	12.3	0.6	12.5	3.5	0.0	0.0	0.4	3.0	0.0	3.7
Cycle Q Clear(g_c), s	5.0	12.3	12.3	0.6	12.5	3.5	0.3	0.0	0.4	3.0	0.0	3.7
Prop In Lane	1.00		0.03	1.00		1.00	0.77		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	146	581	609	37	945	421	503	0	466	114	807	684
V/C Ratio(X)	1.03	0.70	0.70	0.47	0.82	0.27	0.03	0.00	0.03	0.78	0.00	0.22
Avail Cap(c_a), veh/h	146	581	609	146	1046	466	503	0	466	146	807	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	18.0	18.0	29.6	21.1	17.8	15.3	0.0	15.4	28.2	9.9	10.9
Incr Delay (d2), s/veh	82.8	3.8	3.6	8.9	4.9	0.3	0.1	0.0	0.1	18.6	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	4.9	5.1	0.3	5.2	1.2	0.1	0.0	0.2	1.8	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	110.9	21.7	21.6	38.6	26.0	18.1	15.4	0.0	15.5	46.9	9.9	11.7
LnGrp LOS	F	C	C	D	C	B	B	A	B	D	A	B
Approach Vol, veh/h		985			908			29			242	
Approach Delay, s/veh		35.3			25.2			15.5			24.6	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	8.4	22.5	5.8	24.5		30.9	9.5	20.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.0	2.4	2.6	14.3		5.7	7.0	14.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.7		0.3	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay				29.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	629	116	88	587	39	105	189	79	62	160	84
Future Volume (veh/h)	141	629	116	88	587	39	105	189	79	62	160	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	153	684	126	96	638	42	114	205	86	67	174	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	1008	450	132	910	406	968	905	367	481	842	420
Arrive On Green	0.10	0.28	0.28	0.07	0.26	0.26	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2162	2467	1000	1088	2295	1146
Grp Volume(v), veh/h	153	684	126	96	638	42	114	146	145	67	133	132
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1081	1777	1690	1088	1777	1664
Q Serve(g_s), s	4.1	8.4	3.0	2.6	8.0	1.0	1.9	2.8	2.9	2.2	2.5	2.7
Cycle Q Clear(g_c), s	4.1	8.4	3.0	2.6	8.0	1.0	4.6	2.8	2.9	5.2	2.5	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.59	1.00		0.69
Lane Grp Cap(c), veh/h	181	1008	450	132	910	406	968	652	620	481	652	610
V/C Ratio(X)	0.84	0.68	0.28	0.72	0.70	0.10	0.12	0.22	0.23	0.14	0.20	0.22
Avail Cap(c_a), veh/h	181	1304	581	181	1304	581	968	652	620	481	652	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	15.6	13.7	22.2	16.5	13.9	12.3	10.7	10.8	12.5	10.6	10.7
Incr Delay (d2), s/veh	28.6	1.0	0.3	8.7	1.0	0.1	0.2	0.8	0.9	0.6	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.9	0.9	1.3	2.8	0.3	0.4	1.0	1.0	0.5	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.2	16.5	14.0	31.0	17.5	14.1	12.5	11.5	11.7	13.2	11.3	11.5
LnGrp LOS	D	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		963			776			405			332	
Approach Delay, s/veh		21.6			19.0			11.8			11.8	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	8.1	18.4		22.5	9.5	17.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		6.6	4.6	10.4		7.2	6.1	10.0				
Green Ext Time (p_c), s		1.6	0.0	2.9		1.2	0.0	2.6				
Intersection Summary												
HCM 6th Ctrl Delay				17.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	120	642	99	95	573	47	81	168	77	52	155	70
Future Volume (veh/h)	120	642	99	95	573	47	81	168	77	52	155	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	698	108	103	623	51	88	183	84	57	168	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	981	437	137	924	412	1001	887	391	498	892	387
Arrive On Green	0.09	0.28	0.28	0.08	0.26	0.26	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2204	2399	1058	1112	2413	1046
Grp Volume(v), veh/h	130	698	108	103	623	51	88	134	133	57	122	122
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1102	1777	1680	1112	1777	1682
Q Serve(g_s), s	3.5	8.6	2.6	2.8	7.7	1.2	1.4	2.5	2.6	1.8	2.3	2.4
Cycle Q Clear(g_c), s	3.5	8.6	2.6	2.8	7.7	1.2	3.8	2.5	2.6	4.4	2.3	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		0.62
Lane Grp Cap(c), veh/h	166	981	437	137	924	412	1001	657	621	498	657	622
V/C Ratio(X)	0.78	0.71	0.25	0.75	0.67	0.12	0.09	0.20	0.21	0.11	0.19	0.20
Avail Cap(c_a), veh/h	183	1314	586	183	1314	586	1001	657	621	498	657	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	15.9	13.7	22.0	16.2	13.8	11.7	10.5	10.5	12.0	10.4	10.4
Incr Delay (d2), s/veh	18.1	1.2	0.3	11.2	0.9	0.1	0.2	0.7	0.8	0.5	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.0	0.8	1.4	2.6	0.4	0.3	0.9	0.9	0.4	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	17.1	14.0	33.2	17.0	13.9	11.9	11.2	11.3	12.5	11.0	11.1
LnGrp LOS	D	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		936			777			355			301	
Approach Delay, s/veh		19.9			19.0			11.4			11.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	8.3	17.9		22.5	9.0	17.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		5.8	4.8	10.6		6.4	5.5	9.7				
Green Ext Time (p_c), s		1.4	0.0	2.8		1.1	0.0	2.6				
Intersection Summary												
HCM 6th Ctrl Delay				17.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	33	592	138	108	534	134	141	253	75	120	288	47
Future Volume (veh/h)	33	592	138	108	534	134	141	253	75	120	288	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	623	145	114	562	141	148	266	79	126	303	49
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	842	376	249	966	431	268	1102	491	257	1365	214
Arrive On Green	0.04	0.24	0.24	0.07	0.27	0.27	0.08	0.31	0.31	0.07	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4450	698
Grp Volume(v), veh/h	35	623	145	114	562	141	148	266	79	126	230	122
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1745
Q Serve(g_s), s	1.1	9.5	4.5	1.9	8.0	4.2	2.4	3.3	2.1	2.1	2.9	3.1
Cycle Q Clear(g_c), s	1.1	9.5	4.5	1.9	8.0	4.2	2.4	3.3	2.1	2.1	2.9	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	66	842	376	249	966	431	268	1102	491	257	1044	535
V/C Ratio(X)	0.53	0.74	0.39	0.46	0.58	0.33	0.55	0.24	0.16	0.49	0.22	0.23
Avail Cap(c_a), veh/h	152	1090	486	294	1090	486	294	1102	491	294	1044	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	20.7	18.8	26.1	18.5	17.1	26.1	15.1	14.7	26.1	15.1	15.2
Incr Delay (d2), s/veh	6.5	2.0	0.6	1.3	0.6	0.4	1.8	0.5	0.7	1.5	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.7	1.5	0.7	2.9	1.4	1.0	1.2	0.8	0.8	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	22.7	19.5	27.5	19.1	17.5	27.9	15.6	15.4	27.5	15.6	16.2
LnGrp LOS	C	C	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		803			817			493			478	
Approach Delay, s/veh		22.6			20.0			19.3			18.9	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	22.7	8.7	18.4	9.1	22.5	6.7	20.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.1	5.3	3.9	11.5	4.4	5.1	3.1	10.0				
Green Ext Time (p_c), s	0.0	1.4	0.0	2.4	0.0	1.6	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay			20.5									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	621	107	90	564	112	114	202	76	82	260	33
Future Volume (veh/h)	44	621	107	90	564	112	114	202	76	82	260	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	654	113	95	594	118	120	213	80	86	274	35
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	867	387	232	946	422	253	1125	502	222	1415	176
Arrive On Green	0.04	0.24	0.24	0.07	0.27	0.27	0.07	0.32	0.32	0.06	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4599	573
Grp Volume(v), veh/h	46	654	113	95	594	118	120	213	80	86	201	108
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1767
Q Serve(g_s), s	1.5	10.0	3.4	1.5	8.6	3.5	2.0	2.5	2.1	1.4	2.5	2.6
Cycle Q Clear(g_c), s	1.5	10.0	3.4	1.5	8.6	3.5	2.0	2.5	2.1	1.4	2.5	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	80	867	387	232	946	422	253	1125	502	222	1047	544
V/C Ratio(X)	0.57	0.75	0.29	0.41	0.63	0.28	0.47	0.19	0.16	0.39	0.19	0.20
Avail Cap(c_a), veh/h	152	1093	488	295	1093	488	295	1125	502	295	1047	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	20.5	18.0	26.2	18.9	17.0	26.0	14.5	14.4	26.3	14.9	14.9
Incr Delay (d2), s/veh	6.3	2.3	0.4	1.2	0.9	0.4	1.4	0.4	0.7	1.1	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.9	1.1	0.6	3.2	1.1	0.8	0.9	0.7	0.5	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	22.8	18.4	27.3	19.8	17.4	27.4	14.9	15.1	27.4	15.3	15.8
LnGrp LOS	C	C	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		813			807			413			395	
Approach Delay, s/veh		22.8			20.3			18.6			18.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	23.0	8.4	18.8	8.8	22.5	7.1	20.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.4	4.5	3.5	12.0	4.0	4.6	3.5	10.6				
Green Ext Time (p_c), s	0.0	1.1	0.0	2.3	0.0	1.3	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			20.5									
HCM 6th LOS			C									

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	727	143	253	691	0	141	0	295	1	0	0
Future Volume (vph)	14	727	143	253	691	0	141	0	295	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		0.95	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1457	1504		3362	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1457	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	765	151	266	727	0	148	0	311	1	0	0
RTOR Reduction (vph)	0	0	99	0	0	0	0	106	116	0	0	0
Lane Group Flow (vph)	15	765	52	266	727	0	133	58	46	0	1	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.3	21.3	5.0	25.4		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.3	21.3	5.0	25.4		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.40		0.29	0.29	0.29		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	25	1188	531	270	1417		479	415	429		55	
v/s Ratio Prot	0.01	c0.22		c0.08	c0.21		c0.08	0.04				
v/s Ratio Perm			0.03						0.03		c0.00	
v/c Ratio	0.60	0.64	0.10	0.99	0.51		0.28	0.14	0.11		0.02	
Uniform Delay, d1	31.1	17.8	14.5	29.2	14.3		17.6	16.9	16.7		30.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	33.2	1.2	0.1	50.3	0.3		1.4	0.7	0.5		0.1	
Delay (s)	64.3	19.0	14.5	79.4	14.6		19.0	17.5	17.2		30.8	
Level of Service	E	B	B	E	B		B	B	B		C	
Approach Delay (s)		19.0			32.0			17.9			30.8	
Approach LOS		B			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			24.2	HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.49									
Actuated Cycle Length (s)			63.4	Sum of lost time (s)				18.0				
Intersection Capacity Utilization			52.1%	ICU Level of Service				A				
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	723	153	243	654	0	138	0	283	0	0	2
Future Volume (vph)	13	723	153	243	654	0	138	0	283	0	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1458	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1458	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	761	161	256	688	0	145	0	298	0	0	2
RTOR Reduction (vph)	0	0	101	0	0	0	0	106	111	0	2	0
Lane Group Flow (vph)	14	761	60	256	688	0	130	52	44	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.3	21.3	5.0	25.4		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.3	21.3	5.0	25.4		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.40		0.29	0.29	0.29		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	25	1188	531	270	1417		479	416	429		47	
v/s Ratio Prot	0.01	c0.22		c0.07	c0.19		c0.08	0.04			c0.00	
v/s Ratio Perm			0.04						0.03			
v/c Ratio	0.56	0.64	0.11	0.95	0.49		0.27	0.12	0.10		0.00	
Uniform Delay, d1	31.1	17.8	14.5	29.1	14.1		17.5	16.8	16.7		30.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	25.6	1.2	0.1	40.4	0.3		1.4	0.6	0.5		0.0	
Delay (s)	56.7	19.0	14.6	69.4	14.4		18.9	17.4	17.2		30.7	
Level of Service	E	B	B	E	B		B	B	B		C	
Approach Delay (s)		18.8			29.3			17.8			30.7	
Approach LOS		B			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			22.9	HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.49									
Actuated Cycle Length (s)			63.4	Sum of lost time (s)				18.0				
Intersection Capacity Utilization			51.5%	ICU Level of Service				A				
Analysis Period (min)			15									

c Critical Lane Group

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	2	9	16	4	30	3	525	15	16	489	6
Future Vol, veh/h	0	2	9	16	4	30	3	525	15	16	489	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	10	17	4	33	3	571	16	17	532	7

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1174	1163	536	1161	1158	579	539	0	0	587	0	0
Stage 1	570	570	-	585	585	-	-	-	-	-	-	-
Stage 2	604	593	-	576	573	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	169	195	545	172	196	515	1029	-	-	988	-	-
Stage 1	506	505	-	497	498	-	-	-	-	-	-	-
Stage 2	485	493	-	503	504	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	153	191	545	165	192	515	1029	-	-	988	-	-
Mov Cap-2 Maneuver	153	191	-	165	192	-	-	-	-	-	-	-
Stage 1	504	496	-	496	497	-	-	-	-	-	-	-
Stage 2	449	492	-	483	495	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB		
HCM Control Delay, s	14.1		20.7		0			0.3		
HCM LOS	B		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1029	-	-	408	284	988	-
HCM Lane V/C Ratio	0.003	-	-	0.029	0.191	0.018	-
HCM Control Delay (s)	8.5	-	-	14.1	20.7	8.7	-
HCM Lane LOS	A	-	-	B	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.7	0.1	-

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	3	0	3	19	5	42	6	576	15	9	475	0
Future Vol, veh/h	3	0	3	19	5	42	6	576	15	9	475	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	3	21	5	46	7	626	16	10	516	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1210	1192	516	1186	1184	634	516	0	0	642	0	0
Stage 1	536	536	-	648	648	-	-	-	-	-	-	-
Stage 2	674	656	-	538	536	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	159	187	559	166	189	479	1050	-	-	943	-	-
Stage 1	529	523	-	459	466	-	-	-	-	-	-	-
Stage 2	444	462	-	527	523	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	139	184	559	163	186	479	1050	-	-	943	-	-
Mov Cap-2 Maneuver	139	184	-	163	186	-	-	-	-	-	-	-
Stage 1	525	517	-	456	463	-	-	-	-	-	-	-
Stage 2	394	459	-	518	517	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.6		21.8		0.1		0.2	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1050	-	-	223	286	943	-
HCM Lane V/C Ratio	0.006	-	-	0.029	0.251	0.01	-
HCM Control Delay (s)	8.4	-	-	21.6	21.8	8.9	-
HCM Lane LOS	A	-	-	C	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1	0	-

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	66	4	65	82	12	7	173	65	14	172	8
Future Vol, veh/h	9	66	4	65	82	12	7	173	65	14	172	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	72	4	71	89	13	8	188	71	15	187	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	10.1	10.3	10
HCM LOS	A	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	11%	41%	7%
Vol Thru, %	71%	84%	52%	89%
Vol Right, %	27%	5%	8%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	245	79	159	194
LT Vol	7	9	65	14
Through Vol	173	66	82	172
RT Vol	65	4	12	8
Lane Flow Rate	266	86	173	211
Geometry Grp	1	1	1	1
Degree of Util (X)	0.349	0.129	0.25	0.288
Departure Headway (Hd)	4.719	5.408	5.213	4.92
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	754	667	681	723
Service Time	2.796	3.408	3.306	3.004
HCM Lane V/C Ratio	0.353	0.129	0.254	0.292
HCM Control Delay	10.3	9.2	10.1	10
HCM Lane LOS	B	A	B	A
HCM 95th-tile Q	1.6	0.4	1	1.2

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	42	11	71	86	14	31	171	56	11	136	14
Future Vol, veh/h	2	42	11	71	86	14	31	171	56	11	136	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	46	12	77	93	15	34	186	61	12	148	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	10	10.4	9.4
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	4%	42%	7%
Vol Thru, %	66%	76%	50%	84%
Vol Right, %	22%	20%	8%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	258	55	171	161
LT Vol	31	2	71	11
Through Vol	171	42	86	136
RT Vol	56	11	14	14
Lane Flow Rate	280	60	186	175
Geometry Grp	1	1	1	1
Degree of Util (X)	0.364	0.086	0.264	0.236
Departure Headway (Hd)	4.672	5.156	5.111	4.861
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	766	687	697	733
Service Time	2.735	3.248	3.187	2.932
HCM Lane V/C Ratio	0.366	0.087	0.267	0.239
HCM Control Delay	10.4	8.7	10	9.4
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.7	0.3	1.1	0.9

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	136	16	26	162	5	18	0	9	2	5	0
Future Vol, veh/h	3	136	16	26	162	5	18	0	9	2	5	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	148	17	28	176	5	20	0	10	2	5	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.5	7.9	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	2%	13%	29%
Vol Thru, %	0%	88%	84%	71%
Vol Right, %	33%	10%	3%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	155	193	7
LT Vol	18	3	26	2
Through Vol	0	136	162	5
RT Vol	9	16	5	0
Lane Flow Rate	29	168	210	8
Geometry Grp	1	1	1	1
Degree of Util (X)	0.038	0.192	0.241	0.01
Departure Headway (Hd)	4.694	4.098	4.137	4.848
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	767	864	860	743
Service Time	2.694	2.175	2.203	2.849
HCM Lane V/C Ratio	0.038	0.194	0.244	0.011
HCM Control Delay	7.9	8.2	8.5	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.7	0.9	0

Intersection

Intersection Delay, s/veh	8.4
Intersection LOS	A
























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	129	17	15	191	4	14	0	11	2	4	3
Future Vol, veh/h	6	129	17	15	191	4	14	0	11	2	4	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	140	18	16	208	4	15	0	12	2	4	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.7	7.8	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	56%	4%	7%	22%
Vol Thru, %	0%	85%	91%	44%
Vol Right, %	44%	11%	2%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	152	210	9
LT Vol	14	6	15	2
Through Vol	0	129	191	4
RT Vol	11	17	4	3
Lane Flow Rate	27	165	228	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.035	0.189	0.262	0.013
Departure Headway (Hd)	4.644	4.111	4.126	4.664
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	776	861	863	772
Service Time	2.645	2.192	2.192	2.665
HCM Lane V/C Ratio	0.035	0.192	0.264	0.013
HCM Control Delay	7.8	8.2	8.7	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.7	1.1	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	98	30	84	104	49	40	276	96	52	263	79
Future Volume (veh/h)	47	98	30	84	104	49	40	276	96	52	263	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	103	32	88	109	52	42	291	101	55	277	83
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	156	48	192	202	171	529	943	321	518	1007	296
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.04	0.36	0.36	0.05	0.37	0.37
Sat Flow, veh/h	1781	1369	425	1781	1870	1585	1781	2603	885	1781	2709	795
Grp Volume(v), veh/h	49	0	135	88	109	52	42	197	195	55	180	180
Grp Sat Flow(s),veh/h/ln	1781	0	1794	1781	1870	1585	1781	1777	1711	1781	1777	1727
Q Serve(g_s), s	1.2	0.0	3.6	2.3	2.7	1.5	0.7	3.9	4.1	0.9	3.5	3.6
Cycle Q Clear(g_c), s	1.2	0.0	3.6	2.3	2.7	1.5	0.7	3.9	4.1	0.9	3.5	3.6
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.52	1.00		0.46
Lane Grp Cap(c), veh/h	203	0	204	192	202	171	529	644	620	518	660	642
V/C Ratio(X)	0.24	0.00	0.66	0.46	0.54	0.30	0.08	0.31	0.32	0.11	0.27	0.28
Avail Cap(c_a), veh/h	645	0	650	645	678	574	629	644	620	602	660	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	21.1	20.8	21.0	20.4	9.1	11.4	11.4	8.9	10.9	10.9
Incr Delay (d2), s/veh	0.6	0.0	3.6	1.7	2.2	1.0	0.1	1.2	1.3	0.1	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.5	1.0	1.2	0.6	0.2	1.4	1.4	0.3	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	0.0	24.7	22.5	23.2	21.4	9.1	12.6	12.7	9.0	11.9	12.0
LnGrp LOS	C	A	C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		184			249			434			415	
Approach Delay, s/veh		23.6			22.6			12.3			11.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	22.5		10.2	6.7	23.0		9.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.9	6.1		5.6	2.7	5.6		4.7				
Green Ext Time (p_c), s	0.0	1.7		0.6	0.0	1.5		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				15.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	102	38	79	104	40	33	259	82	43	277	61
Future Volume (veh/h)	60	102	38	79	104	40	33	259	82	43	277	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	107	40	83	109	42	35	273	86	45	292	64
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	162	60	189	198	168	519	966	298	521	1074	232
Arrive On Green	0.12	0.12	0.12	0.11	0.11	0.11	0.04	0.36	0.36	0.05	0.37	0.37
Sat Flow, veh/h	1781	1298	485	1781	1870	1585	1781	2674	825	1781	2907	628
Grp Volume(v), veh/h	63	0	147	83	109	42	35	179	180	45	177	179
Grp Sat Flow(s),veh/h/ln	1781	0	1783	1781	1870	1585	1781	1777	1722	1781	1777	1757
Q Serve(g_s), s	1.6	0.0	3.9	2.2	2.8	1.2	0.6	3.6	3.7	0.8	3.5	3.6
Cycle Q Clear(g_c), s	1.6	0.0	3.9	2.2	2.8	1.2	0.6	3.6	3.7	0.8	3.5	3.6
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.48	1.00		0.36
Lane Grp Cap(c), veh/h	222	0	222	189	198	168	519	642	622	521	656	649
V/C Ratio(X)	0.28	0.00	0.66	0.44	0.55	0.25	0.07	0.28	0.29	0.09	0.27	0.28
Avail Cap(c_a), veh/h	644	0	644	644	676	573	629	642	622	617	656	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	20.8	20.9	21.1	20.4	9.3	11.3	11.3	9.1	11.0	11.0
Incr Delay (d2), s/veh	0.7	0.0	3.3	1.6	2.4	0.8	0.1	1.1	1.2	0.1	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.6	0.9	1.2	0.4	0.2	1.3	1.3	0.2	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	24.1	22.5	23.5	21.2	9.3	12.4	12.5	9.2	12.0	12.1
LnGrp LOS	C	A	C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		210			234			394			401	
Approach Delay, s/veh		23.0			22.7			12.2			11.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	22.5		10.7	6.4	22.9		9.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.8	5.7		5.9	2.6	5.6		4.8				
Green Ext Time (p_c), s	0.0	1.5		0.6	0.0	1.5		0.7				
Intersection Summary												
HCM 6th Ctrl Delay				15.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖↗	↖↗		↖	↗	↖↗
Traffic Volume (veh/h)	78	132	34	41	117	41	38	323	24	25	486	52
Future Volume (veh/h)	78	132	34	41	117	41	38	323	24	25	486	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	139	36	43	123	43	40	340	25	26	512	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	393	99	82	216	183	150	1935	140	55	1808	192
Arrive On Green	0.07	0.14	0.14	0.05	0.12	0.12	0.04	0.40	0.40	0.03	0.39	0.39
Sat Flow, veh/h	1781	2813	707	1781	1870	1585	3456	4859	352	1781	4688	497
Grp Volume(v), veh/h	82	86	89	43	123	43	40	237	128	26	370	197
Grp Sat Flow(s),veh/h/ln	1781	1777	1743	1781	1870	1585	1728	1702	1807	1781	1702	1781
Q Serve(g_s), s	2.1	2.0	2.2	1.1	2.9	1.2	0.5	2.1	2.1	0.7	3.5	3.6
Cycle Q Clear(g_c), s	2.1	2.0	2.2	1.1	2.9	1.2	0.5	2.1	2.1	0.7	3.5	3.6
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.20	1.00		0.28
Lane Grp Cap(c), veh/h	125	248	243	82	216	183	150	1356	720	55	1313	687
V/C Ratio(X)	0.66	0.35	0.36	0.53	0.57	0.24	0.27	0.17	0.18	0.48	0.28	0.29
Avail Cap(c_a), veh/h	191	685	672	191	721	611	370	1356	720	191	1313	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	18.2	18.2	21.8	19.6	18.8	21.6	9.1	9.1	22.3	9.9	9.9
Incr Delay (d2), s/veh	5.7	0.8	0.9	5.2	2.4	0.7	0.9	0.3	0.5	6.3	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.7	0.8	0.5	1.2	0.4	0.2	0.6	0.7	0.3	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	19.0	19.1	27.0	21.9	19.4	22.6	9.4	9.6	28.6	10.4	11.0
LnGrp LOS	C	B	B	C	C	B	C	A	A	C	B	B
Approach Vol, veh/h		257			209			405			593	
Approach Delay, s/veh		21.6			22.4			10.8			11.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	23.1	6.6	11.0	6.5	22.5	7.8	9.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.7	4.1	3.1	4.2	2.5	5.6	4.1	4.9				
Green Ext Time (p_c), s	0.0	1.7	0.0	0.6	0.0	2.6	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			14.6									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

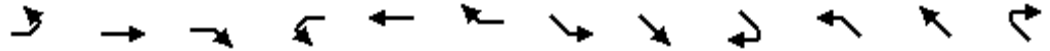
03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↖	↗↘	↖↗		↗	↗↘	
Traffic Volume (veh/h)	50	148	39	44	125	34	37	309	29	23	442	38
Future Volume (veh/h)	50	148	39	44	125	34	37	309	29	23	442	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	156	41	46	132	36	39	325	31	24	465	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	354	90	86	226	192	147	1925	180	51	1876	159
Arrive On Green	0.05	0.13	0.13	0.05	0.12	0.12	0.04	0.41	0.41	0.03	0.39	0.39
Sat Flow, veh/h	1781	2802	716	1781	1870	1585	3456	4749	445	1781	4794	407
Grp Volume(v), veh/h	53	97	100	46	132	36	39	231	125	24	329	176
Grp Sat Flow(s),veh/h/ln	1781	1777	1741	1781	1870	1585	1728	1702	1790	1781	1702	1797
Q Serve(g_s), s	1.3	2.3	2.4	1.2	3.1	0.9	0.5	2.0	2.0	0.6	3.0	3.0
Cycle Q Clear(g_c), s	1.3	2.3	2.4	1.2	3.1	0.9	0.5	2.0	2.0	0.6	3.0	3.0
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.25	1.00		0.23
Lane Grp Cap(c), veh/h	95	224	220	86	226	192	147	1380	726	51	1332	703
V/C Ratio(X)	0.56	0.43	0.45	0.53	0.58	0.19	0.26	0.17	0.17	0.47	0.25	0.25
Avail Cap(c_a), veh/h	194	695	682	194	732	620	376	1380	726	194	1332	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	18.6	18.6	21.4	19.1	18.2	21.3	8.7	8.7	22.0	9.4	9.4
Incr Delay (d2), s/veh	5.0	1.3	1.5	5.1	2.4	0.5	0.9	0.3	0.5	6.5	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.9	0.9	0.5	1.2	0.3	0.2	0.6	0.6	0.3	0.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	19.9	20.1	26.4	21.5	18.6	22.3	9.0	9.3	28.5	9.9	10.3
LnGrp LOS	C	B	C	C	C	B	C	A	A	C	A	B
Approach Vol, veh/h		250			214			395			529	
Approach Delay, s/veh		21.3			22.1			10.4			10.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	23.1	6.7	10.3	6.5	22.5	7.0	10.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.6	4.0	3.2	4.4	2.5	5.0	3.3	5.1				
Green Ext Time (p_c), s	0.0	1.6	0.0	0.7	0.0	2.3	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			14.3									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

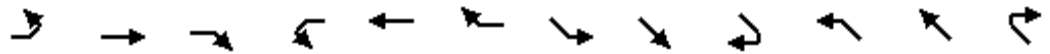
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	19	23	44	28	23	31	13	499	14	20	497	10
Future Volume (veh/h)	19	23	44	28	23	31	13	499	14	20	497	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	25	48	30	25	34	14	542	15	22	540	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	131	182	227	109	182	32	917	777	49	912	19
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.02	0.49	0.49	0.03	0.50	0.50
Sat Flow, veh/h	526	1138	1585	657	945	1585	1781	1870	1585	1781	1826	37
Grp Volume(v), veh/h	46	0	48	55	0	34	14	542	15	22	0	551
Grp Sat Flow(s),veh/h/ln	1664	0	1585	1601	0	1585	1781	1870	1585	1781	0	1864
Q Serve(g_s), s	0.0	0.0	1.0	0.1	0.0	0.7	0.3	7.6	0.2	0.4	0.0	7.7
Cycle Q Clear(g_c), s	0.8	0.0	1.0	1.0	0.0	0.7	0.3	7.6	0.2	0.4	0.0	7.7
Prop In Lane	0.46		1.00	0.55		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	334	0	182	336	0	182	32	917	777	49	0	930
V/C Ratio(X)	0.14	0.00	0.26	0.16	0.00	0.19	0.43	0.59	0.02	0.45	0.00	0.59
Avail Cap(c_a), veh/h	929	0	777	909	0	777	242	917	777	242	0	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.7	0.0	14.8	14.8	0.0	14.7	17.8	6.7	4.8	17.6	0.0	6.5
Incr Delay (d2), s/veh	0.2	0.0	0.8	0.2	0.0	0.5	8.9	2.8	0.0	6.4	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	0.4	0.0	0.2	0.2	2.7	0.0	0.2	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	15.6	15.0	0.0	15.2	26.8	9.5	4.9	24.0	0.0	9.3
LnGrp LOS	B	A	B	B	A	B	C	A	A	C	A	A
Approach Vol, veh/h		94			89			571				573
Approach Delay, s/veh		15.3			15.1			9.8				9.9
Approach LOS		B			B			A				A
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	22.8		8.7	5.5	22.5		8.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	9.7		3.0	2.4	9.6		3.0				
Green Ext Time (p_c), s	0.0	2.4		0.3	0.0	2.4		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			10.6									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	16	14	37	17	23	23	10	416	12	20	528	9
Future Volume (veh/h)	16	14	37	17	23	23	10	416	12	20	528	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	15	40	18	25	25	11	452	13	22	574	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	217	106	165	194	121	165	26	928	787	49	933	16
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.01	0.50	0.50	0.03	0.51	0.51
Sat Flow, veh/h	619	1015	1585	510	1163	1585	1781	1870	1585	1781	1833	32
Grp Volume(v), veh/h	32	0	40	43	0	25	11	452	13	22	0	584
Grp Sat Flow(s),veh/h/ln	1635	0	1585	1673	0	1585	1781	1870	1585	1781	0	1865
Q Serve(g_s), s	0.0	0.0	0.8	0.0	0.0	0.5	0.2	5.8	0.2	0.4	0.0	8.1
Cycle Q Clear(g_c), s	0.6	0.0	0.8	0.8	0.0	0.5	0.2	5.8	0.2	0.4	0.0	8.1
Prop In Lane	0.53		1.00	0.42		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	322	0	165	315	0	165	26	928	787	49	0	949
V/C Ratio(X)	0.10	0.00	0.24	0.14	0.00	0.15	0.43	0.49	0.02	0.45	0.00	0.62
Avail Cap(c_a), veh/h	932	0	787	946	0	787	246	928	787	246	0	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.8	0.0	14.9	14.9	0.0	14.8	17.7	6.1	4.6	17.4	0.0	6.4
Incr Delay (d2), s/veh	0.1	0.0	0.8	0.2	0.0	0.4	10.8	1.8	0.0	6.4	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.3	0.0	0.2	0.2	1.9	0.0	0.2	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	15.7	15.1	0.0	15.2	28.5	7.9	4.7	23.7	0.0	9.3
LnGrp LOS	B	A	B	B	A	B	C	A	A	C	A	A
Approach Vol, veh/h		72			68			476			606	
Approach Delay, s/veh		15.4			15.1			8.3			9.9	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	23.0		8.3	5.5	22.5		8.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.2	10.1		2.8	2.4	7.8		2.8				
Green Ext Time (p_c), s	0.0	2.5		0.2	0.0	2.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	39	82	118	49	101	112	451	163	36	437	86
Future Volume (veh/h)	32	39	82	118	49	101	112	451	163	36	437	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	42	89	128	53	110	122	490	177	39	475	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	282	343	291	374	99	206	451	863	731	451	632	124
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.09	0.46	0.46	0.04	0.42	0.42
Sat Flow, veh/h	1223	1870	1585	1259	542	1125	1781	1870	1585	1781	1519	297
Grp Volume(v), veh/h	35	42	89	128	0	163	122	490	177	39	0	568
Grp Sat Flow(s),veh/h/ln	1223	1870	1585	1259	0	1668	1781	1870	1585	1781	0	1817
Q Serve(g_s), s	1.2	0.8	2.1	4.1	0.0	3.8	1.6	8.3	2.9	0.5	0.0	11.5
Cycle Q Clear(g_c), s	5.0	0.8	2.1	4.9	0.0	3.8	1.6	8.3	2.9	0.5	0.0	11.5
Prop In Lane	1.00		1.00	1.00		0.67	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	282	343	291	374	0	306	451	863	731	451	0	756
V/C Ratio(X)	0.12	0.12	0.31	0.34	0.00	0.53	0.27	0.57	0.24	0.09	0.00	0.75
Avail Cap(c_a), veh/h	567	778	659	666	0	694	499	863	731	580	0	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	14.8	15.3	16.8	0.0	16.0	7.5	8.5	7.1	7.0	0.0	10.7
Incr Delay (d2), s/veh	0.2	0.2	0.6	0.5	0.0	1.4	0.3	2.7	0.8	0.1	0.0	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	0.7	1.1	0.0	1.4	0.4	3.0	0.9	0.2	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	14.9	15.9	17.4	0.0	17.4	7.8	11.2	7.8	7.0	0.0	17.5
LnGrp LOS	B	B	B	B	A	B	A	B	A	A	A	B
Approach Vol, veh/h		166			291			789			607	
Approach Delay, s/veh		16.2			17.4			9.9			16.9	
Approach LOS		B			B			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	24.5		12.4	8.3	22.5		12.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.5	10.3		7.0	3.6	13.5		6.9				
Green Ext Time (p_c), s	0.0	2.3		0.4	0.0	1.6		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				13.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	42	115	100	66	66	141	440	115	33	372	63
Future Volume (veh/h)	50	42	115	100	66	66	141	440	115	33	372	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	46	125	109	72	72	153	478	125	36	404	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	328	278	354	151	151	534	883	749	476	649	109
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.10	0.47	0.47	0.04	0.42	0.42
Sat Flow, veh/h	1244	1870	1585	1214	858	858	1781	1870	1585	1781	1560	263
Grp Volume(v), veh/h	54	46	125	109	0	144	153	478	125	36	0	472
Grp Sat Flow(s),veh/h/ln	1244	1870	1585	1214	0	1716	1781	1870	1585	1781	0	1823
Q Serve(g_s), s	1.8	0.9	3.1	3.6	0.0	3.3	2.0	7.8	2.0	0.5	0.0	8.8
Cycle Q Clear(g_c), s	5.0	0.9	3.1	4.5	0.0	3.3	2.0	7.8	2.0	0.5	0.0	8.8
Prop In Lane	1.00		1.00	1.00		0.50	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	291	328	278	354	0	301	534	883	749	476	0	758
V/C Ratio(X)	0.19	0.14	0.45	0.31	0.00	0.48	0.29	0.54	0.17	0.08	0.00	0.62
Avail Cap(c_a), veh/h	589	777	659	646	0	713	567	883	749	610	0	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	15.1	16.0	17.0	0.0	16.1	6.7	8.1	6.5	6.9	0.0	10.0
Incr Delay (d2), s/veh	0.3	0.2	1.1	0.5	0.0	1.2	0.3	2.4	0.5	0.1	0.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.3	1.1	0.9	0.0	1.2	0.5	2.8	0.6	0.1	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	15.3	17.1	17.5	0.0	17.2	7.0	10.5	7.0	7.0	0.0	13.8
LnGrp LOS	B	B	B	B	A	B	A	B	A	A	A	B
Approach Vol, veh/h		225			253			756			508	
Approach Delay, s/veh		17.1			17.4			9.2			13.3	
Approach LOS		B			B			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	24.9		12.1	8.7	22.5		12.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.5	9.8		7.0	4.0	10.8		6.5				
Green Ext Time (p_c), s	0.0	2.2		0.6	0.0	1.8		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				12.6								
HCM 6th LOS				B								

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑	↘	↗	↑	↘		↕			↕	
Traffic Vol, veh/h	32	68	53	13	80	40	58	134	32	29	139	27
Future Vol, veh/h	32	68	53	13	80	40	58	134	32	29	139	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	74	58	14	87	43	63	146	35	32	151	29
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	9.3	9.5	12	11.3
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	26%	100%	0%	0%	100%	0%	0%	15%
Vol Thru, %	60%	0%	100%	0%	0%	100%	0%	71%
Vol Right, %	14%	0%	0%	100%	0%	0%	100%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	224	32	68	53	13	80	40	195
LT Vol	58	32	0	0	13	0	0	29
Through Vol	134	0	68	0	0	80	0	139
RT Vol	32	0	0	53	0	0	40	27
Lane Flow Rate	243	35	74	58	14	87	43	212
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.385	0.064	0.126	0.086	0.026	0.149	0.066	0.335
Departure Headway (Hd)	5.694	6.625	6.115	5.401	6.659	6.149	5.435	5.687
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	633	541	587	663	538	583	659	634
Service Time	3.421	4.359	3.849	3.134	4.393	3.882	3.168	3.414
HCM Lane V/C Ratio	0.384	0.065	0.126	0.087	0.026	0.149	0.065	0.334
HCM Control Delay	12	9.8	9.7	8.6	9.6	10	8.6	11.3
HCM Lane LOS	B	A	A	A	A	A	A	B
HCM 95th-tile Q	1.8	0.2	0.4	0.3	0.1	0.5	0.2	1.5

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	43	85	62	26	118	54	46	144	22	42	154	39
Future Vol, veh/h	43	85	62	26	118	54	46	144	22	42	154	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	92	67	28	128	59	50	157	24	46	167	42
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10.1	10.4	12.8	13.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	22%	100%	0%	0%	100%	0%	0%	18%
Vol Thru, %	68%	0%	100%	0%	0%	100%	0%	66%
Vol Right, %	10%	0%	0%	100%	0%	0%	100%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	212	43	85	62	26	118	54	235
LT Vol	46	43	0	0	26	0	0	42
Through Vol	144	0	85	0	0	118	0	154
RT Vol	22	0	0	62	0	0	54	39
Lane Flow Rate	230	47	92	67	28	128	59	255
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.393	0.09	0.165	0.107	0.054	0.228	0.093	0.429
Departure Headway (Hd)	6.146	6.943	6.431	5.714	6.925	6.413	5.697	6.047
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	585	515	556	625	516	558	627	595
Service Time	3.893	4.7	4.187	3.47	4.682	4.17	3.453	3.793
HCM Lane V/C Ratio	0.393	0.091	0.165	0.107	0.054	0.229	0.094	0.429
HCM Control Delay	12.8	10.4	10.5	9.2	10.1	11.1	9	13.3
HCM Lane LOS	B	B	B	A	B	B	A	B
HCM 95th-tile Q	1.9	0.3	0.6	0.4	0.2	0.9	0.3	2.1

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	2	70	3	1	5	55	342	2	2	290	89
Future Volume (veh/h)	82	2	70	3	1	5	55	342	2	2	290	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	2	76	3	1	5	60	372	2	2	315	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	211	179	16	5	19	640	1813	10	647	1777	793
Arrive On Green	0.11	0.11	0.11	0.01	0.01	0.01	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1781	1870	1585	1352	451	1585	974	3624	19	1009	3554	1585
Grp Volume(v), veh/h	89	2	76	4	0	5	60	182	192	2	315	97
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1803	0	1585	974	1777	1867	1009	1777	1585
Q Serve(g_s), s	1.7	0.0	1.6	0.1	0.0	0.1	1.3	2.1	2.1	0.0	1.7	1.2
Cycle Q Clear(g_c), s	1.7	0.0	1.6	0.1	0.0	0.1	3.0	2.1	2.1	2.1	1.7	1.2
Prop In Lane	1.00		1.00	0.75		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	201	211	179	22	0	19	640	889	934	647	1777	793
V/C Ratio(X)	0.44	0.01	0.43	0.19	0.00	0.26	0.09	0.21	0.21	0.00	0.18	0.12
Avail Cap(c_a), veh/h	891	935	793	902	0	793	640	889	934	647	1777	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	14.2	14.9	17.6	0.0	17.6	5.8	5.0	5.0	5.6	4.9	4.8
Incr Delay (d2), s/veh	1.5	0.0	1.6	4.1	0.0	7.2	0.3	0.5	0.5	0.0	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.6	0.1	0.0	0.1	0.2	0.5	0.5	0.0	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.4	14.2	16.5	21.7	0.0	24.8	6.1	5.5	5.5	5.6	5.2	5.1
LnGrp LOS	B	B	B	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		167			9			434			414	
Approach Delay, s/veh		16.4			23.4			5.6			5.1	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		8.6		22.5		4.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		5.0		3.7		4.1		2.1				
Green Ext Time (p_c), s		1.9		0.4		1.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				7.3								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	3	74	2	0	5	52	293	0	5	329	76
Future Volume (veh/h)	80	3	74	2	0	5	52	293	0	5	329	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	3	80	2	0	5	57	318	0	5	358	83
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	213	180	17	0	15	623	1781	0	680	1781	794
Arrive On Green	0.11	0.11	0.11	0.01	0.00	0.01	0.50	0.50	0.00	0.50	0.50	0.50
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	948	3647	0	1062	3554	1585
Grp Volume(v), veh/h	87	3	80	2	0	5	57	318	0	5	358	83
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	948	1777	0	1062	1777	1585
Q Serve(g_s), s	1.6	0.1	1.7	0.0	0.0	0.1	1.3	1.8	0.0	0.1	2.0	1.0
Cycle Q Clear(g_c), s	1.6	0.1	1.7	0.0	0.0	0.1	3.3	1.8	0.0	1.9	2.0	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	213	180	17	0	15	623	1781	0	680	1781	794
V/C Ratio(X)	0.43	0.01	0.44	0.12	0.00	0.34	0.09	0.18	0.00	0.01	0.20	0.10
Avail Cap(c_a), veh/h	893	937	794	893	0	794	623	1781	0	680	1781	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.8	14.1	14.9	17.6	0.0	17.7	5.9	4.9	0.0	5.4	5.0	4.7
Incr Delay (d2), s/veh	1.4	0.0	1.7	3.1	0.0	12.7	0.3	0.2	0.0	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.6	0.0	0.0	0.1	0.2	0.3	0.0	0.0	0.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	14.2	16.6	20.8	0.0	30.4	6.2	5.1	0.0	5.4	5.2	5.0
LnGrp LOS	B	B	B	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		170			7			375			446	
Approach Delay, s/veh		16.4			27.6			5.3			5.2	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		8.6		22.5		4.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		5.3		3.7		4.0		2.1				
Green Ext Time (p_c), s		1.7		0.4		2.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			7.3									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

22: Arrow Hwy & Indian Hill Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	97	528	150	135	333	59	100	521	332	129	432	60
Future Volume (veh/h)	97	528	150	135	333	59	100	521	332	129	432	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	574	163	147	362	64	109	566	361	140	470	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	802	358	150	834	372	139	1077	480	150	969	133
Arrive On Green	0.08	0.23	0.23	0.08	0.23	0.23	0.08	0.30	0.30	0.08	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3138	432
Grp Volume(v), veh/h	105	574	163	147	362	64	109	566	361	140	265	270
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1793
Q Serve(g_s), s	3.4	8.9	5.3	4.9	5.2	1.9	3.6	7.8	12.2	4.6	7.2	7.3
Cycle Q Clear(g_c), s	3.4	8.9	5.3	4.9	5.2	1.9	3.6	7.8	12.2	4.6	7.2	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	134	802	358	150	834	372	139	1077	480	150	549	554
V/C Ratio(X)	0.78	0.72	0.46	0.98	0.43	0.17	0.78	0.53	0.75	0.93	0.48	0.49
Avail Cap(c_a), veh/h	150	1077	480	150	1077	480	150	1077	480	150	549	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	21.2	19.8	27.2	19.4	18.1	26.9	17.2	18.7	27.0	16.7	16.7
Incr Delay (d2), s/veh	21.0	1.5	0.9	67.5	0.4	0.2	21.7	1.8	10.4	54.0	3.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.5	1.9	4.8	2.0	0.7	2.3	3.2	5.4	4.1	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	22.7	20.8	94.6	19.7	18.4	48.6	19.0	29.1	81.1	19.7	19.8
LnGrp LOS	D	C	C	F	B	B	D	B	C	F	B	B
Approach Vol, veh/h		842			573			1036				675
Approach Delay, s/veh		25.5			38.8			25.6				32.5
Approach LOS		C			D			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.5	17.9	9.1	22.9	9.0	18.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	6.6	14.2	6.9	10.9	5.6	9.3	5.4	7.2				
Green Ext Time (p_c), s	0.0	1.8	0.0	2.6	0.0	2.1	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay				29.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 22: Arrow Hwy & Indian Hill Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	90	892	145	122	420	72	130	428	406	125	384	60
Future Volume (veh/h)	90	892	145	122	420	72	130	428	406	125	384	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	970	158	133	457	78	141	465	441	136	417	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	999	446	139	1027	458	139	999	446	139	867	134
Arrive On Green	0.07	0.28	0.28	0.08	0.29	0.29	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3084	477
Grp Volume(v), veh/h	98	970	158	133	457	78	141	465	441	136	239	243
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1784
Q Serve(g_s), s	3.5	17.3	5.1	4.8	6.7	2.4	5.0	6.9	17.7	4.9	7.2	7.2
Cycle Q Clear(g_c), s	3.5	17.3	5.1	4.8	6.7	2.4	5.0	6.9	17.7	4.9	7.2	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	125	999	446	139	1027	458	139	999	446	139	500	502
V/C Ratio(X)	0.78	0.97	0.35	0.96	0.45	0.17	1.01	0.47	0.99	0.98	0.48	0.48
Avail Cap(c_a), veh/h	139	999	446	139	1027	458	139	999	446	139	500	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	22.7	18.4	29.4	18.6	17.0	29.5	19.0	22.9	29.4	19.1	19.1
Incr Delay (d2), s/veh	22.4	21.5	0.5	62.7	0.3	0.2	79.8	1.6	40.0	69.1	3.3	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	9.6	1.8	4.4	2.6	0.8	5.1	2.9	11.0	4.7	3.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	44.3	18.8	92.1	18.9	17.2	109.3	20.6	62.9	98.6	22.4	22.5
LnGrp LOS	D	D	B	F	B	B	F	C	E	F	C	C
Approach Vol, veh/h		1226			668			1047			618	
Approach Delay, s/veh		41.6			33.2			50.4			39.2	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.5	22.5	9.5	22.5	9.0	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	6.9	19.7	6.8	19.3	7.0	9.2	5.5	8.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.9	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			42.2									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	856	26	13	434	75	21	51	25	76	57	79
Future Volume (veh/h)	71	856	26	13	434	75	21	51	25	76	57	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	930	28	14	472	82	23	55	27	83	62	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	1259	38	246	1083	187	205	440	187	752	801	679
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	854	3522	106	586	3030	523	234	1028	437	1316	1870	1585
Grp Volume(v), veh/h	77	469	489	14	276	278	105	0	0	83	62	86
Grp Sat Flow(s),veh/h/ln	854	1777	1851	586	1777	1776	1699	0	0	1316	1870	1585
Q Serve(g_s), s	3.2	9.7	9.7	0.9	5.0	5.0	0.0	0.0	0.0	0.0	0.8	1.4
Cycle Q Clear(g_c), s	8.2	9.7	9.7	10.6	5.0	5.0	1.5	0.0	0.0	1.2	0.8	1.4
Prop In Lane	1.00		0.06	1.00		0.29	0.22		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	375	635	662	246	635	635	832	0	0	752	801	679
V/C Ratio(X)	0.21	0.74	0.74	0.06	0.43	0.44	0.13	0.00	0.00	0.11	0.08	0.13
Avail Cap(c_a), veh/h	435	761	793	287	761	761	832	0	0	752	801	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	11.8	11.8	16.4	10.3	10.3	7.3	0.0	0.0	7.2	7.1	7.3
Incr Delay (d2), s/veh	0.3	3.1	3.0	0.1	0.5	0.5	0.3	0.0	0.0	0.3	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.5	3.6	0.1	1.6	1.6	0.5	0.0	0.0	0.4	0.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	14.9	14.8	16.5	10.7	10.8	7.6	0.0	0.0	7.5	7.3	7.6
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1035			568			105			231	
Approach Delay, s/veh		14.7			10.9			7.6			7.5	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		19.5		22.5		19.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		3.5		11.7		3.4		12.6				
Green Ext Time (p_c), s		0.4		3.3		0.7		1.7				
Intersection Summary												
HCM 6th Ctrl Delay				12.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	1290	28	25	500	51	20	50	35	84	75	69
Future Volume (veh/h)	57	1290	28	25	500	51	20	50	35	84	75	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	1402	30	27	543	55	22	54	38	91	82	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	389	1423	30	163	1303	132	172	374	225	702	748	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	820	3557	76	374	3259	329	191	935	563	1304	1870	1585
Grp Volume(v), veh/h	62	700	732	27	295	303	114	0	0	91	82	75
Grp Sat Flow(s),veh/h/ln	820	1777	1857	374	1777	1811	1689	0	0	1304	1870	1585
Q Serve(g_s), s	2.7	17.5	17.6	0.4	5.4	5.4	0.0	0.0	0.0	0.0	1.2	1.3
Cycle Q Clear(g_c), s	8.1	17.5	17.6	18.0	5.4	5.4	1.9	0.0	0.0	1.5	1.2	1.3
Prop In Lane	1.00		0.04	1.00		0.18	0.19		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	389	711	743	163	711	724	771	0	0	702	748	634
V/C Ratio(X)	0.16	0.98	0.99	0.17	0.42	0.42	0.15	0.00	0.00	0.13	0.11	0.12
Avail Cap(c_a), veh/h	389	711	743	163	711	724	771	0	0	702	748	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	13.4	13.4	22.5	9.7	9.7	8.7	0.0	0.0	8.5	8.5	8.5
Incr Delay (d2), s/veh	0.2	29.8	29.4	0.5	0.4	0.4	0.4	0.0	0.0	0.4	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	11.2	11.6	0.3	1.7	1.7	0.7	0.0	0.0	0.5	0.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.8	43.1	42.8	22.9	10.1	10.1	9.1	0.0	0.0	8.9	8.8	8.9
LnGrp LOS	B	D	D	C	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1494			625			114			248	
Approach Delay, s/veh		41.7			10.7			9.1			8.9	
Approach LOS		D			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		3.9		19.6		3.5		20.0				
Green Ext Time (p_c), s		0.4		0.0		0.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				29.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↗↘		↗	↗	↗
Traffic Volume (veh/h)	134	762	37	32	324	43	72	194	61	47	167	95
Future Volume (veh/h)	134	762	37	32	324	43	72	194	61	47	167	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	828	40	35	352	47	78	211	66	51	182	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	979	47	66	742	98	110	864	263	86	578	489
Arrive On Green	0.09	0.28	0.28	0.04	0.24	0.24	0.06	0.32	0.32	0.05	0.31	0.31
Sat Flow, veh/h	1781	3451	167	1781	3154	418	1781	2683	817	1781	1870	1585
Grp Volume(v), veh/h	146	426	442	35	197	202	78	138	139	51	182	103
Grp Sat Flow(s),veh/h/ln	1781	1777	1840	1781	1777	1795	1781	1777	1723	1781	1870	1585
Q Serve(g_s), s	4.8	13.2	13.2	1.1	5.6	5.7	2.5	3.3	3.5	1.6	4.3	2.8
Cycle Q Clear(g_c), s	4.8	13.2	13.2	1.1	5.6	5.7	2.5	3.3	3.5	1.6	4.3	2.8
Prop In Lane	1.00		0.09	1.00		0.23	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	153	504	522	66	418	422	110	572	555	86	578	489
V/C Ratio(X)	0.96	0.85	0.85	0.53	0.47	0.48	0.71	0.24	0.25	0.59	0.32	0.21
Avail Cap(c_a), veh/h	153	549	568	153	549	554	153	572	555	153	578	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	19.7	19.7	27.6	19.2	19.2	26.8	14.5	14.6	27.2	15.4	14.9
Incr Delay (d2), s/veh	59.4	11.0	10.7	6.4	0.8	0.8	8.8	1.0	1.1	6.4	1.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	6.0	6.2	0.6	2.1	2.2	1.3	1.3	1.4	0.8	1.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.9	30.7	30.3	34.0	20.0	20.1	35.7	15.5	15.7	33.6	16.9	15.9
LnGrp LOS	F	C	C	C	C	C	D	B	B	C	B	B
Approach Vol, veh/h		1014			434			355				336
Approach Delay, s/veh		38.5			21.2			20.0				19.1
Approach LOS		D			C			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	23.3	6.7	21.0	8.1	22.5	9.5	18.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.6	5.5	3.1	15.2	4.5	6.3	6.8	7.7				
Green Ext Time (p_c), s	0.0	1.2	0.0	1.4	0.0	1.1	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay				28.8								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↗↘		↗	↗	↗
Traffic Volume (veh/h)	165	1174	42	32	388	66	80	235	57	75	204	109
Future Volume (veh/h)	165	1174	42	32	388	66	80	235	57	75	204	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	1276	46	35	422	72	87	255	62	82	222	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1049	38	66	770	130	114	858	205	111	561	475
Arrive On Green	0.08	0.30	0.30	0.04	0.25	0.25	0.06	0.30	0.30	0.06	0.30	0.30
Sat Flow, veh/h	1781	3498	126	1781	3040	515	1781	2846	679	1781	1870	1585
Grp Volume(v), veh/h	179	648	674	35	245	249	87	157	160	82	222	118
Grp Sat Flow(s),veh/h/ln	1781	1777	1848	1781	1777	1778	1781	1777	1748	1781	1870	1585
Q Serve(g_s), s	5.0	18.0	18.0	1.2	7.2	7.3	2.9	4.1	4.2	2.7	5.7	3.4
Cycle Q Clear(g_c), s	5.0	18.0	18.0	1.2	7.2	7.3	2.9	4.1	4.2	2.7	5.7	3.4
Prop In Lane	1.00		0.07	1.00		0.29	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	148	533	554	66	450	450	114	536	527	111	561	475
V/C Ratio(X)	1.21	1.22	1.22	0.53	0.55	0.55	0.77	0.29	0.30	0.74	0.40	0.25
Avail Cap(c_a), veh/h	148	533	554	148	533	533	148	536	527	148	561	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	21.0	21.0	28.4	19.4	19.5	27.7	16.1	16.1	27.7	16.7	15.9
Incr Delay (d2), s/veh	140.0	113.3	113.6	6.6	1.0	1.1	15.9	1.4	1.5	12.6	2.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	22.9	23.9	0.6	2.7	2.8	1.6	1.7	1.7	1.5	2.6	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	167.6	134.4	134.6	35.0	20.4	20.5	43.5	17.5	17.6	40.3	18.8	17.1
LnGrp LOS	F	F	F	C	C	C	D	B	B	D	B	B
Approach Vol, veh/h		1501			529			404			422	
Approach Delay, s/veh		138.4			21.4			23.1			22.5	
Approach LOS		F			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	22.6	6.7	22.5	8.3	22.5	9.5	19.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.7	6.2	3.2	20.0	4.9	7.7	7.0	9.3				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.0	0.0	1.2	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			83.3									
HCM 6th LOS			F									

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	67	66	345	316	35
Future Vol, veh/h	28	67	66	345	316	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	73	72	375	343	38

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	694	191	381	0	-	0
Stage 1	362	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	377	818	1174	-	-	-
Stage 1	675	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	354	818	1174	-	-	-
Mov Cap-2 Maneuver	354	-	-	-	-	-
Stage 1	634	-	-	-	-	-
Stage 2	699	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1174	-	590	-	-
HCM Lane V/C Ratio	0.061	-	0.175	-	-
HCM Control Delay (s)	8.3	-	12.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT		T	TT	TT	
Traffic Vol, veh/h	30	64	52	294	305	37
Future Vol, veh/h	30	64	52	294	305	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	70	57	320	332	40

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	626	186	372	0	0
Stage 1	352	-	-	-	-
Stage 2	274	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-
Pot Cap-1 Maneuver	416	824	1183	-	-
Stage 1	683	-	-	-	-
Stage 2	747	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	396	824	1183	-	-
Mov Cap-2 Maneuver	396	-	-	-	-
Stage 1	650	-	-	-	-
Stage 2	747	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1183	-	613	-	-
HCM Lane V/C Ratio	0.048	-	0.167	-	-
HCM Control Delay (s)	8.2	-	12	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↑	↗	↙	↕		↗	↕	↗
Traffic Volume (veh/h)	0	0	0	42	0	37	2	441	35	27	584	0
Future Volume (veh/h)	0	0	0	42	0	37	2	441	35	27	584	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	44	0	39	2	464	37	28	615	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	88	147	125	5	1691	134	117	2748	0
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.08	0.00	0.51	0.51	0.03	0.54	0.00
Sat Flow, veh/h	0	-64819	0	1781	1870	1585	1781	3334	265	3456	5274	0
Grp Volume(v), veh/h	0	0	0	44	0	39	2	247	254	28	615	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1823	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	0.8	0.0	2.8	2.8	0.3	2.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.9	0.0	0.8	0.0	2.8	2.8	0.3	2.2	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.15	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	88	147	125	5	901	924	117	2748	0
V/C Ratio(X)	0.00	0.00	0.00	0.50	0.00	0.31	0.40	0.27	0.28	0.24	0.22	0.00
Avail Cap(c_a), veh/h	0	948	0	251	948	804	251	901	924	487	2748	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.4	0.0	15.4	17.7	5.0	5.0	16.7	4.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.3	0.0	1.4	44.2	0.8	0.7	1.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.4	0.0	0.3	0.1	0.8	0.8	0.1	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	20.7	0.0	16.9	61.8	5.8	5.8	17.7	4.5	0.0
LnGrp LOS	A	A	A	C	A	B	E	A	A	B	A	A
Approach Vol, veh/h		0			83			503			643	
Approach Delay, s/veh		0.0			18.9			6.0			5.1	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	22.5	6.3	1.0	4.6	23.6		7.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	4.8	2.9	0.0	2.0	4.2		2.8				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	0.0	3.6		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				6.4								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↖	↗	↗	↕		↗	↖	↖
Traffic Volume (veh/h)	0	1	0	60	1	32	0	490	48	21	658	0
Future Volume (veh/h)	0	1	0	60	1	32	0	490	48	21	658	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	0	65	1	35	0	533	52	23	715	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	78	0	113	400	339	4	1418	138	97	2909	0
Arrive On Green	0.00	0.04	0.00	0.06	0.21	0.21	0.00	0.43	0.43	0.03	0.57	0.00
Sat Flow, veh/h	0	1870	0	1781	1870	1585	1781	3272	318	3456	5274	0
Grp Volume(v), veh/h	0	1	0	65	1	35	0	289	296	23	715	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1813	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.7	0.0	4.6	4.6	0.3	2.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5	0.0	0.7	0.0	4.6	4.6	0.3	2.9	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	0	78	0	113	400	339	4	770	786	97	2909	0
V/C Ratio(X)	0.00	0.01	0.00	0.57	0.00	0.10	0.00	0.38	0.38	0.24	0.25	0.00
Avail Cap(c_a), veh/h	0	810	0	214	810	687	214	770	786	416	2909	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	19.1	0.0	18.9	12.8	13.1	0.0	8.0	8.0	19.8	4.5	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	4.5	0.0	0.1	0.0	1.4	1.4	1.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.2	0.0	1.6	1.6	0.1	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.1	0.0	23.4	12.9	13.3	0.0	9.4	9.4	21.0	4.7	0.0
LnGrp LOS	A	B	A	C	B	B	A	A	A	C	A	A
Approach Vol, veh/h		1			101			585			738	
Approach Delay, s/veh		19.1			19.8			9.4			5.2	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	22.5	7.1	6.2	0.0	28.2		13.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	6.6	3.5	2.0	0.0	4.9		2.7				
Green Ext Time (p_c), s	0.0	2.8	0.0	0.0	0.0	4.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				7.9								
HCM 6th LOS				A								

APPENDIX C

OPENING YEAR WITHOUT PROJECT LEVEL-OF-SERVICE WORKSHEET

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

03/19/2024



























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	33	454	231	371	769	67	131	49	282	36	172	55
Future Volume (veh/h)	33	454	231	371	769	67	131	49	282	36	172	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	493	251	403	836	73	142	53	307	39	187	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	759	338	425	1475	658	438	605	539	297	908	283
Arrive On Green	0.04	0.21	0.21	0.24	0.42	0.42	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1133	1777	1585	1022	2667	830
Grp Volume(v), veh/h	36	493	251	403	836	73	142	53	307	39	123	124
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1133	1777	1585	1022	1777	1721
Q Serve(g_s), s	1.3	8.2	9.6	14.5	11.7	1.8	6.6	1.3	10.3	2.1	3.2	3.3
Cycle Q Clear(g_c), s	1.3	8.2	9.6	14.5	11.7	1.8	10.0	1.3	10.3	12.4	3.2	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	65	759	338	425	1475	658	438	605	539	297	605	586
V/C Ratio(X)	0.55	0.65	0.74	0.95	0.57	0.11	0.32	0.09	0.57	0.13	0.20	0.21
Avail Cap(c_a), veh/h	153	984	439	425	1525	680	438	605	539	297	605	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.60	0.60	0.60	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	23.3	23.9	24.4	14.5	11.7	18.8	14.6	17.5	22.6	15.2	15.2
Incr Delay (d2), s/veh	7.0	1.0	4.8	22.1	0.3	0.0	1.7	0.3	3.8	0.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.3	3.8	8.3	4.3	0.6	1.8	0.5	4.0	0.6	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	24.3	28.7	46.5	14.8	11.7	20.5	14.8	21.4	23.5	15.9	16.1
LnGrp LOS	D	C	C	D	B	B	C	B	C	C	B	B
Approach Vol, veh/h		780			1312			502			286	
Approach Delay, s/veh		26.3			24.4			20.4			17.0	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.6	20.0	18.4		26.6	6.9	31.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	15.5	18.0		18.0	5.6	27.9				
Max Q Clear Time (g_c+I1), s		12.3	16.5	11.6		14.4	3.3	13.7				
Green Ext Time (p_c), s		1.4	0.0	2.3		0.5	0.0	5.3				
Intersection Summary												
HCM 6th Ctrl Delay				23.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

























1: Indian Hill Blvd & Base Line Rd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	721	102	170	446	49	179	74	236	48	55	36
Future Volume (veh/h)	60	721	102	170	446	49	179	74	236	48	55	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	784	111	185	485	53	195	80	257	52	60	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	963	430	230	1227	547	580	666	594	385	802	478
Arrive On Green	0.06	0.27	0.27	0.13	0.35	0.35	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1296	1777	1585	1043	2141	1277
Grp Volume(v), veh/h	65	784	111	185	485	53	195	80	257	52	49	50
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1296	1777	1585	1043	1777	1641
Q Serve(g_s), s	2.1	12.4	3.3	6.1	6.2	1.4	6.9	1.8	7.3	2.3	1.1	1.2
Cycle Q Clear(g_c), s	2.1	12.4	3.3	6.1	6.2	1.4	8.0	1.8	7.3	9.6	1.1	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	98	963	430	230	1227	547	580	666	594	385	666	615
V/C Ratio(X)	0.66	0.81	0.26	0.80	0.40	0.10	0.34	0.12	0.43	0.14	0.07	0.08
Avail Cap(c_a), veh/h	193	1066	476	282	1244	555	580	666	594	385	666	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	20.5	17.1	25.4	14.9	13.3	14.7	12.3	14.0	17.6	12.1	12.1
Incr Delay (d2), s/veh	7.4	4.5	0.3	11.9	0.2	0.1	1.4	0.3	2.1	0.7	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.3	1.1	3.2	2.3	0.5	2.0	0.7	2.7	0.6	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	25.0	17.5	37.3	15.1	13.4	16.1	12.6	16.1	18.3	12.3	12.4
LnGrp LOS	D	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		960			723			532			151	
Approach Delay, s/veh		24.8			20.7			15.6			14.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.0	12.3	20.8		27.0	7.8	25.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	9.5	18.0		19.0	6.5	21.0				
Max Q Clear Time (g_c+I1), s		10.0	8.1	14.4		11.6	4.1	8.2				
Green Ext Time (p_c), s		1.9	0.1	1.9		0.4	0.0	2.8				
Intersection Summary												
HCM 6th Ctrl Delay				20.8								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	426	143	157	935	33	129	110	104	83	182	174
Future Volume (veh/h)	67	426	143	157	935	33	129	110	104	83	182	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	463	155	171	1016	36	140	120	113	90	198	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	987	440	215	1207	538	422	705	597	503	705	597
Arrive On Green	0.06	0.28	0.28	0.12	0.34	0.34	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	997	1870	1585	1147	1870	1585
Grp Volume(v), veh/h	73	463	155	171	1016	36	140	120	113	90	198	189
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	997	1870	1585	1147	1870	1585
Q Serve(g_s), s	2.4	6.5	4.7	5.6	15.9	0.9	6.8	2.6	2.9	3.4	4.4	5.1
Cycle Q Clear(g_c), s	2.4	6.5	4.7	5.6	15.9	0.9	11.3	2.6	2.9	6.0	4.4	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	987	440	215	1207	538	422	705	597	503	705	597
V/C Ratio(X)	0.70	0.47	0.35	0.80	0.84	0.07	0.33	0.17	0.19	0.18	0.28	0.32
Avail Cap(c_a), veh/h	163	1066	476	282	1303	581	422	705	597	503	705	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.38	0.38	0.38	0.39	0.39	0.39	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	18.0	17.4	25.7	18.3	13.4	17.0	12.5	12.5	14.4	13.0	13.2
Incr Delay (d2), s/veh	6.6	0.3	0.4	4.5	1.9	0.0	0.8	0.2	0.3	0.8	1.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.5	1.6	2.5	6.1	0.3	1.5	1.0	1.0	0.9	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	18.3	17.7	30.2	20.2	13.4	17.8	12.7	12.8	15.2	14.0	14.6
LnGrp LOS	C	B	B	C	C	B	B	B	B	B	B	B
Approach Vol, veh/h		691			1223			373			477	
Approach Delay, s/veh		19.8			21.4			14.6			14.5	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.1	11.7	21.2		27.1	8.0	24.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	9.5	18.0		19.0	5.5	22.0				
Max Q Clear Time (g_c+I1), s		13.3	7.6	8.5		8.0	4.4	17.9				
Green Ext Time (p_c), s		0.9	0.1	2.5		1.6	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				18.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd





























03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	97	769	86	96	491	58	134	100	113	71	76	89
Future Volume (veh/h)	97	769	86	96	491	58	134	100	113	71	76	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	836	93	104	534	63	146	109	123	77	83	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	1044	466	133	1042	465	601	722	612	578	722	612
Arrive On Green	0.08	0.29	0.29	0.07	0.29	0.29	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1315	1870	1585	1284	1870	1585
Grp Volume(v), veh/h	105	836	93	104	534	63	146	109	123	77	83	97
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1315	1870	1585	1284	1870	1585
Q Serve(g_s), s	3.2	11.9	2.4	3.2	6.9	1.6	4.4	2.1	2.8	2.3	1.6	2.2
Cycle Q Clear(g_c), s	3.2	11.9	2.4	3.2	6.9	1.6	6.0	2.1	2.8	4.4	1.6	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	134	1044	466	133	1042	465	601	722	612	578	722	612
V/C Ratio(X)	0.78	0.80	0.20	0.78	0.51	0.14	0.24	0.15	0.20	0.13	0.11	0.16
Avail Cap(c_a), veh/h	165	1169	522	162	1163	519	601	722	612	578	722	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.86	0.86	0.86	0.43	0.43	0.43	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	17.9	14.6	25.0	16.2	14.3	12.8	11.0	11.2	12.4	10.8	11.0
Incr Delay (d2), s/veh	11.3	2.3	0.1	15.8	0.3	0.1	0.4	0.2	0.3	0.5	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	4.6	0.8	1.8	2.5	0.5	1.2	0.8	0.9	0.7	0.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	20.2	14.7	40.9	16.5	14.4	13.2	11.2	11.6	12.9	11.2	11.6
LnGrp LOS	D	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1034			701			378			257	
Approach Delay, s/veh		21.3			19.9			12.1			11.8	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.7	8.6	20.7		25.7	8.6	20.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.4	5.0	18.1		18.4	5.1	18.0				
Max Q Clear Time (g_c+I1), s		8.0	5.2	13.9		6.4	5.2	8.9				
Green Ext Time (p_c), s		1.1	0.0	2.2		0.8	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				18.4								
HCM 6th LOS				B								

























HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 						 	
Traffic Volume (veh/h)	29	412	156	545	880	92	211	68	398	94	81	73
Future Volume (veh/h)	29	412	156	545	880	92	211	68	398	94	81	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	448	170	592	957	100	229	74	433	102	88	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	609	271	668	1180	526	571	630	534	477	610	495
Arrive On Green	0.03	0.17	0.17	0.19	0.33	0.33	0.07	0.34	0.34	0.06	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1862	1513
Grp Volume(v), veh/h	32	448	170	592	957	100	229	74	433	102	84	83
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1598
Q Serve(g_s), s	1.3	9.0	7.5	12.5	18.5	3.4	5.1	2.0	18.7	2.8	2.5	2.8
Cycle Q Clear(g_c), s	1.3	9.0	7.5	12.5	18.5	3.4	5.1	2.0	18.7	2.8	2.5	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	58	609	271	668	1180	526	571	630	534	477	582	523
V/C Ratio(X)	0.55	0.74	0.63	0.89	0.81	0.19	0.40	0.12	0.81	0.21	0.14	0.16
Avail Cap(c_a), veh/h	119	853	380	668	1303	581	571	630	534	491	582	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	29.5	28.8	29.4	22.9	17.9	16.3	17.2	22.7	15.0	17.8	17.9
Incr Delay (d2), s/veh	7.3	1.9	2.2	13.6	3.7	0.2	0.4	0.4	11.8	0.2	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.7	2.8	6.0	7.4	1.1	2.5	0.9	7.9	1.0	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	31.4	31.0	43.1	26.5	18.0	16.8	17.5	34.5	15.2	18.3	18.6
LnGrp LOS	D	C	C	D	C	B	B	B	C	B	B	B
Approach Vol, veh/h		650			1649			736			269	
Approach Delay, s/veh		31.8			32.0			27.3			17.2	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	29.8	19.0	17.3	9.6	29.1	6.9	29.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.5	14.5	18.0	5.1	19.4	5.0	27.5				
Max Q Clear Time (g_c+I1), s	4.8	20.7	14.5	11.0	7.1	4.8	3.3	20.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	0.7	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay				29.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	778	174	488	490	148	159	131	592	103	73	43
Future Volume (veh/h)	53	778	174	488	490	148	159	131	592	103	73	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	846	189	530	533	161	173	142	643	112	79	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	911	406	583	1349	602	537	538	456	359	596	329
Arrive On Green	0.05	0.26	0.26	0.17	0.38	0.38	0.08	0.29	0.29	0.06	0.27	0.27
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2208	1220
Grp Volume(v), veh/h	58	846	189	530	533	161	173	142	643	112	62	64
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1651
Q Serve(g_s), s	2.6	18.6	8.1	12.0	8.8	5.6	5.6	4.7	23.0	3.6	2.1	2.3
Cycle Q Clear(g_c), s	2.6	18.6	8.1	12.0	8.8	5.6	5.6	4.7	23.0	3.6	2.1	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.74
Lane Grp Cap(c), veh/h	81	911	406	583	1349	602	537	538	456	359	480	446
V/C Ratio(X)	0.72	0.93	0.47	0.91	0.39	0.27	0.32	0.26	1.41	0.31	0.13	0.14
Avail Cap(c_a), veh/h	154	911	406	583	1349	602	537	538	456	359	480	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	29.0	25.1	32.6	18.1	17.1	18.8	22.0	28.5	19.1	22.1	22.2
Incr Delay (d2), s/veh	8.3	12.0	0.6	18.3	0.2	0.2	0.3	1.1	196.4	0.5	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.7	2.9	6.1	3.2	1.9	2.2	2.1	32.7	1.4	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	41.1	25.7	50.9	18.3	17.4	19.1	23.1	224.9	19.6	22.7	22.8
LnGrp LOS	D	D	C	D	B	B	B	C	F	B	C	C
Approach Vol, veh/h		1093			1224			958			238	
Approach Delay, s/veh		38.7			32.3			157.8			21.3	
Approach LOS		D			C			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	27.5	18.0	25.0	10.9	26.1	8.1	34.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	23.0	13.5	20.5	6.4	21.6	6.9	27.1				
Max Q Clear Time (g_c+I1), s	5.6	25.0	14.0	20.6	7.6	4.3	4.6	10.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.5	0.0	3.4				
Intersection Summary												
HCM 6th Ctrl Delay			67.8									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	287	511	30	772	668	171	0	442	43	0	571
Future Volume (veh/h)	103	287	511	30	772	668	171	0	442	43	0	571
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	112	312	555	33	839	726	186	0	480	47	0	621
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	142	1060	473	58	893	398	891	0	0	891	0	0
Arrive On Green	0.08	0.30	0.30	0.03	0.25	0.25	0.50	0.00	0.00	0.50	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	186		1781	47	
Grp Volume(v), veh/h	112	312	555	33	839	726	186	11.3		47	10.3	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	4.9	5.4	23.9	1.5	18.5	20.1	4.7			1.1		
Cycle Q Clear(g_c), s	4.9	5.4	23.9	1.5	18.5	20.1	4.7			1.1		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	142	1060	473	58	893	398	891			891		
V/C Ratio(X)	0.79	0.29	1.17	0.57	0.94	1.82	0.21			0.05		
Avail Cap(c_a), veh/h	143	1060	473	114	893	398	891			891		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	36.2	21.6	28.1	38.2	29.4	29.9	11.1			10.3		
Incr Delay (d2), s/veh	25.1	0.2	98.6	8.5	17.3	380.1	0.1			0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	3.0	2.1	21.1	0.7	9.3	49.0	1.6			0.4		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	21.7	126.6	46.7	46.7	410.1	11.3			10.3		
LnGrp LOS	E	C	F	D	D	F	B			B		
Approach Vol, veh/h		979			1598							
Approach Delay, s/veh		85.7			211.8							
Approach LOS		F			F							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	44.5		7.1	28.4	44.5		10.9	24.6				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	6.4		5.1	21.4	9.5		6.4	20.1				
Max Q Clear Time (g_c+I1), s	3.1		3.5	25.9	6.7		6.9	22.1				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			151.2									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp






















04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶		↷	↷		↷
Traffic Volume (veh/h)	157	845	471	33	486	395	127	0	859	80	0	517
Future Volume (veh/h)	157	845	471	33	486	395	127	0	859	80	0	517
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	171	918	512	36	528	429	138	0	934	87	0	562
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	209	1145	511	63	853	380	824	0	0	824	0	0
Arrive On Green	0.12	0.32	0.32	0.04	0.24	0.24	0.46	0.00	0.00	0.46	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	138		1781	87	
Grp Volume(v), veh/h	171	918	512	36	528	429	138	11.8		87	11.4	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	7.0	17.7	24.2	1.5	9.9	18.0	3.4			2.1		
Cycle Q Clear(g_c), s	7.0	17.7	24.2	1.5	9.9	18.0	3.4			2.1		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	209	1145	511	63	853	380	824			824		
V/C Ratio(X)	0.82	0.80	1.00	0.57	0.62	1.13	0.17			0.11		
Avail Cap(c_a), veh/h	226	1145	511	119	853	380	824			824		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	32.3	23.2	25.4	35.6	25.4	28.5	11.7			11.4		
Incr Delay (d2), s/veh	19.5	4.2	40.5	8.0	1.4	85.5	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	3.9	7.2	13.7	0.7	4.0	15.2	1.2			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	27.4	66.0	43.7	26.8	114.0	11.8			11.4		
LnGrp LOS	D	C	F	D	C	F	B			B		
Approach Vol, veh/h		1601			993							
Approach Delay, s/veh		42.4			65.1							
Approach LOS		D			E							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	39.2		7.1	28.7	39.2		13.3	22.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	5.5		5.0	22.5	7.5		9.5	18.0				
Max Q Clear Time (g_c+I1), s	4.1		3.5	26.2	5.4		9.0	20.0				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			47.9									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis
5: Monte Vista Ave & Claremont Blvd






















04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	187	2	14	1	0	0	11	464	1	0	422	310
Future Volume (vph)	187	2	14	1	0	0	11	464	1	0	422	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95			0.95	1.00
Frt	1.00	1.00	0.85		1.00		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1613	1504		1770		1770	3538			3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1613	1504		1863		1770	3538			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	203	2	15	1	0	0	12	504	1	0	459	337
RTOR Reduction (vph)	0	1	12	0	0	0	0	0	0	0	0	126
Lane Group Flow (vph)	104	102	1	0	1	0	12	505	0	0	459	211
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	9.1	9.1	9.1		1.2		1.5	56.2			50.2	50.2
Effective Green, g (s)	9.1	9.1	9.1		1.2		1.5	56.2			50.2	50.2
Actuated g/C Ratio	0.11	0.11	0.11		0.01		0.02	0.70			0.63	0.63
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	191	183	171		27		33	2485			2220	993
v/s Ratio Prot	0.06	c0.06					0.01	c0.14			0.13	
v/s Ratio Perm			0.00		c0.00							0.13
v/c Ratio	0.54	0.56	0.01		0.04		0.36	0.20			0.21	0.21
Uniform Delay, d1	33.5	33.5	31.4		38.8		38.8	4.1			6.4	6.4
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	3.2	3.7	0.0		0.6		6.7	0.2			0.2	0.5
Delay (s)	36.6	37.2	31.5		39.4		45.5	4.3			6.6	6.9
Level of Service	D	D	C		D		D	A			A	A
Approach Delay (s)		36.6			39.4			5.3			6.7	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			10.5				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.27									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			18.0		
Intersection Capacity Utilization			38.8%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

03/19/2024

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	328	0	21	3	9	1	19	501	1	1	471	216	
Future Volume (vph)	328	0	21	3	9	1	19	501	1	1	471	216	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00	
Frt	1.00	1.00	0.85		0.99		1.00	1.00		1.00	1.00	0.85	
Flt Protected	0.95	0.95	1.00		0.99		0.95	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	1681	1613	1504		1825		1770	3538		1770	3539	1583	
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.45	1.00	1.00	
Satd. Flow (perm)	1681	1613	1504		1845		1770	3538		835	3539	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	357	0	23	3	10	1	21	545	1	1	512	235	
RTOR Reduction (vph)	0	119	17	0	1	0	0	0	0	0	0	106	
Lane Group Flow (vph)	178	62	4	0	13	0	21	546	0	1	512	129	
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm	
Protected Phases	4	4			8		5	2			6	6	
Permitted Phases			4	8						6		6	
Actuated Green, G (s)	13.6	13.6	13.6		1.5		3.0	51.4		43.9	43.9	43.9	
Effective Green, g (s)	13.6	13.6	13.6		1.5		3.0	51.4		43.9	43.9	43.9	
Actuated g/C Ratio	0.17	0.17	0.17		0.02		0.04	0.64		0.55	0.55	0.55	
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	285	274	255		34		66	2273		458	1942	868	
v/s Ratio Prot	c0.11	0.04					0.01	c0.15			c0.14		
v/s Ratio Perm			0.00		c0.01					0.00		0.08	
v/c Ratio	0.62	0.23	0.01		0.38		0.32	0.24		0.00	0.26	0.15	
Uniform Delay, d1	30.8	28.7	27.6		38.8		37.5	6.0		8.2	9.5	8.9	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		0.36	0.29	0.04	
Incremental Delay, d2	4.2	0.4	0.0		7.0		2.8	0.3		0.0	0.2	0.3	
Delay (s)	35.1	29.1	27.6		45.8		40.3	6.3		2.9	3.0	0.6	
Level of Service	D	C	C		D		D	A		A	A	A	
Approach Delay (s)		31.8			45.8			7.6			2.3		
Approach LOS		C			D			A			A		
Intersection Summary													
HCM 2000 Control Delay			10.9		HCM 2000 Level of Service						B		
HCM 2000 Volume to Capacity ratio			0.35										
Actuated Cycle Length (s)			80.0		Sum of lost time (s)					18.0			
Intersection Capacity Utilization			39.3%		ICU Level of Service					A			
Analysis Period (min)			15										
c Critical Lane Group													

HCM 6th Signalized Intersection Summary

6: Foothill Blvd & Indian Hill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘	↗	↗	↗↘		↗	↗	↗
Traffic Volume (veh/h)	102	601	120	92	758	138	145	325	83	183	387	166
Future Volume (veh/h)	102	601	120	92	758	138	145	325	83	183	387	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	653	130	100	824	150	158	353	90	199	421	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	780	155	128	911	406	194	817	206	238	590	500
Arrive On Green	0.08	0.26	0.26	0.07	0.26	0.26	0.11	0.29	0.29	0.13	0.32	0.32
Sat Flow, veh/h	1781	2954	587	1781	3554	1585	1781	2812	708	1781	1870	1585
Grp Volume(v), veh/h	111	392	391	100	824	150	158	221	222	199	421	180
Grp Sat Flow(s),veh/h/ln	1781	1777	1765	1781	1777	1585	1781	1777	1743	1781	1870	1585
Q Serve(g_s), s	4.6	15.6	15.7	4.1	16.8	5.8	6.5	7.6	7.8	8.2	14.9	6.6
Cycle Q Clear(g_c), s	4.6	15.6	15.7	4.1	16.8	5.8	6.5	7.6	7.8	8.2	14.9	6.6
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	141	469	466	128	911	406	194	516	507	238	590	500
V/C Ratio(X)	0.79	0.84	0.84	0.78	0.90	0.37	0.81	0.43	0.44	0.84	0.71	0.36
Avail Cap(c_a), veh/h	154	486	482	131	924	412	202	516	507	249	590	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	33.9	26.1	26.1	34.2	27.0	22.9	32.7	21.6	21.6	31.7	22.7	19.8
Incr Delay (d2), s/veh	21.6	11.8	12.1	25.5	12.1	0.6	21.2	2.6	2.7	16.3	5.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	7.6	7.6	2.6	8.1	2.1	3.8	3.3	3.4	4.5	7.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	37.9	38.2	59.8	39.1	23.5	53.8	24.1	24.4	48.0	28.2	21.4
LnGrp LOS	E	D	D	E	D	C	D	C	C	D	C	C
Approach Vol, veh/h		894			1074			601			800	
Approach Delay, s/veh		40.2			38.8			32.0			31.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.5	26.3	9.9	24.3	12.7	28.1	10.4	23.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	20.5	5.5	20.5	8.5	22.5	6.5	19.5				
Max Q Clear Time (g_c+I1), s	10.2	9.8	6.1	17.7	8.5	16.9	6.6	18.8				
Green Ext Time (p_c), s	0.0	1.9	0.0	1.3	0.0	1.6	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			36.3									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 6: Foothill Blvd & Indian Hill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	818	126	110	714	114	205	306	127	146	240	84
Future Volume (veh/h)	56	818	126	110	714	114	205	306	127	146	240	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	889	137	120	776	124	223	333	138	159	261	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	959	148	148	1242	554	258	734	299	193	489	414
Arrive On Green	0.04	0.31	0.31	0.17	0.70	0.70	0.15	0.30	0.30	0.11	0.26	0.26
Sat Flow, veh/h	1781	3086	476	1781	3554	1585	1781	2464	1002	1781	1870	1585
Grp Volume(v), veh/h	61	512	514	120	776	124	223	238	233	159	261	91
Grp Sat Flow(s),veh/h/ln	1781	1777	1785	1781	1777	1585	1781	1777	1690	1781	1870	1585
Q Serve(g_s), s	3.1	25.1	25.1	5.8	10.5	2.5	11.0	9.8	10.1	7.9	10.8	4.0
Cycle Q Clear(g_c), s	3.1	25.1	25.1	5.8	10.5	2.5	11.0	9.8	10.1	7.9	10.8	4.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	79	552	554	148	1242	554	258	530	504	193	489	414
V/C Ratio(X)	0.78	0.93	0.93	0.81	0.62	0.22	0.86	0.45	0.46	0.82	0.53	0.22
Avail Cap(c_a), veh/h	156	563	565	168	1242	554	287	530	504	232	489	414
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	42.6	30.0	30.0	36.9	10.4	9.2	37.6	25.6	25.7	39.3	28.5	26.1
Incr Delay (d2), s/veh	15.0	21.5	21.5	22.8	1.0	0.2	21.2	2.8	3.0	16.8	3.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	13.3	13.3	3.2	2.7	0.8	6.2	4.4	4.3	4.3	5.2	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	51.6	51.5	59.6	11.4	9.4	58.8	28.4	28.7	56.1	32.4	27.2
LnGrp LOS	E	D	D	E	B	A	E	C	C	E	C	C
Approach Vol, veh/h		1087			1020			694			511	
Approach Delay, s/veh		51.9			16.8			38.3			38.8	
Approach LOS		D			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.2	31.3	12.0	32.5	17.6	28.0	8.5	36.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.7	23.3	8.5	28.5	14.5	20.5	7.9	29.1				
Max Q Clear Time (g_c+I1), s	9.9	12.1	7.8	27.1	13.0	12.8	5.1	12.5				
Green Ext Time (p_c), s	0.1	2.1	0.0	0.9	0.1	1.1	0.0	5.0				
Intersection Summary												
HCM 6th Ctrl Delay			36.2									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↘			↘			↘
Traffic Vol, veh/h	22	846	80	128	1098	10	0	0	94	0	0	8
Future Vol, veh/h	22	846	80	128	1098	10	0	0	94	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	920	87	139	1193	11	0	0	102	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1204	0	0	1007	0	0	-	-	460	-	-	597
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	575	-	-	684	-	-	0	0	548	0	0	446
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	575	-	-	684	-	-	-	-	548	-	-	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			1.2			13.1			13.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	548	575	-	-	684	-	-	446
HCM Lane V/C Ratio	0.186	0.042	-	-	0.203	-	-	0.019
HCM Control Delay (s)	13.1	11.5	-	-	11.6	-	-	13.2
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.8	-	-	0.1

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗			↗			↗
Traffic Vol, veh/h	22	1077	59	74	952	5	0	0	127	0	0	28
Future Vol, veh/h	22	1077	59	74	952	5	0	0	127	0	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	1171	64	80	1035	5	0	0	138	0	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1040	0	0	1235	0	0	-	-	586	-	-	518
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	664	-	-	560	-	-	0	0	454	0	0	502
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	664	-	-	560	-	-	-	-	454	-	-	502
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.9			16.4			12.6		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	454	664	-	-	560	-	-	502
HCM Lane V/C Ratio	0.304	0.036	-	-	0.144	-	-	0.061
HCM Control Delay (s)	16.4	10.6	-	-	12.5	-	-	12.6
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.3	0.1	-	-	0.5	-	-	0.2

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖	↑↑			↕			↕	
Traffic Volume (veh/h)	4	857	83	73	1230	11	10	3	17	11	7	0
Future Volume (veh/h)	4	857	83	73	1230	11	10	3	17	11	7	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	932	90	79	1337	12	11	3	18	12	8	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	1617	721	288	1642	15	254	96	337	437	267	0
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.38	0.38	0.38	0.38	0.00
Sat Flow, veh/h	404	3554	1585	601	3609	32	434	252	882	871	699	0
Grp Volume(v), veh/h	4	932	90	79	658	691	32	0	0	20	0	0
Grp Sat Flow(s),veh/h/ln	404	1777	1585	601	1777	1865	1569	0	0	1570	0	0
Q Serve(g_s), s	0.5	10.7	1.8	6.2	17.6	17.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.1	10.7	1.8	16.8	17.6	17.6	0.7	0.0	0.0	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.34		0.56	0.60		0.00
Lane Grp Cap(c), veh/h	185	1617	721	288	808	848	686	0	0	704	0	0
V/C Ratio(X)	0.02	0.58	0.12	0.27	0.81	0.81	0.05	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	203	1777	793	315	888	932	686	0	0	704	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.37	0.37	0.37	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.8	11.1	8.7	17.3	13.0	13.0	10.7	0.0	0.0	10.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.1	0.2	2.1	2.0	0.1	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.5	0.5	0.8	6.2	6.4	0.2	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	11.5	8.7	17.5	15.1	15.0	10.9	0.0	0.0	10.7	0.0	0.0
LnGrp LOS	C	B	A	B	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1026			1428			32			20	
Approach Delay, s/veh		11.3			15.2			10.9			10.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.5		29.5		25.5		29.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		27.5		18.5		27.5				
Max Q Clear Time (g_c+I1), s		2.7		20.1		2.4		19.6				
Green Ext Time (p_c), s		0.1		3.9		0.0		5.4				
Intersection Summary												
HCM 6th Ctrl Delay				13.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↕			↕	
Traffic Volume (veh/h)	9	1383	21	12	976	12	85	10	86	28	8	0
Future Volume (veh/h)	9	1383	21	12	976	12	85	10	86	28	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1503	23	13	1061	13	92	11	93	30	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	275	1787	797	168	1808	22	307	60	252	479	131	0
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.00
Sat Flow, veh/h	525	3554	1585	349	3595	44	631	174	727	1074	376	0
Grp Volume(v), veh/h	10	1503	23	13	524	550	196	0	0	39	0	0
Grp Sat Flow(s),veh/h/ln	525	1777	1585	349	1777	1862	1531	0	0	1451	0	0
Q Serve(g_s), s	0.8	21.9	0.4	2.0	12.5	12.5	3.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.3	21.9	0.4	23.9	12.5	12.5	5.5	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.47		0.47	0.77		0.00
Lane Grp Cap(c), veh/h	275	1787	797	168	894	937	620	0	0	610	0	0
V/C Ratio(X)	0.04	0.84	0.03	0.08	0.59	0.59	0.32	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	295	1925	859	182	962	1009	620	0	0	610	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.62	0.62	0.62	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.2	12.8	7.5	23.1	10.5	10.5	14.5	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	3.3	0.0	0.1	0.5	0.5	1.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	7.9	0.1	0.2	4.1	4.3	2.0	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	16.2	7.5	23.2	11.0	11.0	15.9	0.0	0.0	13.3	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1536			1087			196			39	
Approach Delay, s/veh		16.0			11.2			15.9			13.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.3		34.7		25.3		34.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		7.5		23.9		2.9		25.9				
Green Ext Time (p_c), s		0.8		6.3		0.1		3.7				
Intersection Summary												
HCM 6th Ctrl Delay				14.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	643	6	9	938	119	2	1	9	141	4	347
Future Volume (veh/h)	168	643	6	9	938	119	2	1	9	141	4	347
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	699	7	10	1020	129	2	1	10	153	4	377
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	1538	15	22	1126	502	261	118	407	186	769	651
Arrive On Green	0.12	0.43	0.43	0.01	0.32	0.32	0.26	0.26	0.26	0.10	0.41	0.41
Sat Flow, veh/h	1781	3605	36	1781	3554	1585	756	459	1585	1781	1870	1585
Grp Volume(v), veh/h	183	345	361	10	1020	129	3	0	10	153	4	377
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	1781	1777	1585	1215	0	1585	1781	1870	1585
Q Serve(g_s), s	9.0	12.4	12.4	0.5	24.8	5.4	0.0	0.0	0.4	7.6	0.1	16.5
Cycle Q Clear(g_c), s	9.0	12.4	12.4	0.5	24.8	5.4	0.1	0.0	0.4	7.6	0.1	16.5
Prop In Lane	1.00		0.02	1.00		1.00	0.67		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	758	795	22	1126	502	378	0	407	186	769	651
V/C Ratio(X)	0.84	0.45	0.45	0.46	0.91	0.26	0.01	0.00	0.02	0.82	0.01	0.58
Avail Cap(c_a), veh/h	247	758	795	99	1165	520	378	0	407	208	769	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.71	0.71	0.71	1.00	0.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	38.6	18.3	18.3	44.1	29.5	22.9	24.9	0.0	25.0	39.5	15.6	20.5
Incr Delay (d2), s/veh	17.1	0.3	0.3	10.2	7.5	0.2	0.0	0.0	0.1	19.5	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	4.8	5.0	0.3	11.0	2.0	0.1	0.0	0.2	4.2	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	18.7	18.7	54.3	37.0	23.1	24.9	0.0	25.1	58.9	15.7	23.9
LnGrp LOS	E	B	B	D	D	C	C	A	C	E	B	C
Approach Vol, veh/h		889			1159			13			534	
Approach Delay, s/veh		26.3			35.6			25.1			33.9	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	13.9	27.6	5.6	42.9		41.5	15.5	33.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	19.5	5.0	37.0		34.5	12.5	29.5				
Max Q Clear Time (g_c+I1), s	9.6	2.4	2.5	14.4		18.5	11.0	26.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	4.1		1.2	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				32.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	1097	7	21	761	126	11	7	22	125	4	163
Future Volume (veh/h)	173	1097	7	21	761	126	11	7	22	125	4	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	1192	8	23	827	137	12	8	24	136	4	177
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	1336	9	45	949	423	299	182	453	169	818	693
Arrive On Green	0.13	0.37	0.37	0.03	0.27	0.27	0.29	0.29	0.29	0.10	0.44	0.44
Sat Flow, veh/h	1781	3619	24	1781	3554	1585	793	638	1585	1781	1870	1585
Grp Volume(v), veh/h	188	585	615	23	827	137	20	0	24	136	4	177
Grp Sat Flow(s),veh/h/ln	1781	1777	1866	1781	1777	1585	1431	0	1585	1781	1870	1585
Q Serve(g_s), s	8.2	24.8	24.8	1.0	17.8	5.5	0.0	0.0	0.9	6.0	0.1	5.7
Cycle Q Clear(g_c), s	8.2	24.8	24.8	1.0	17.8	5.5	0.6	0.0	0.9	6.0	0.1	5.7
Prop In Lane	1.00		0.01	1.00		1.00	0.60		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	656	689	45	949	423	481	0	453	169	818	693
V/C Ratio(X)	0.83	0.89	0.89	0.52	0.87	0.32	0.04	0.00	0.05	0.80	0.00	0.26
Avail Cap(c_a), veh/h	265	656	689	114	1008	450	481	0	453	189	818	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.49	0.49	0.49	0.84	0.84	0.84	1.00	0.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	34.1	23.7	23.7	38.5	28.0	23.5	20.6	0.0	20.7	35.5	12.7	14.3
Incr Delay (d2), s/veh	9.3	8.0	7.6	7.6	6.9	0.4	0.2	0.0	0.2	18.9	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	10.8	11.2	0.5	7.9	2.0	0.3	0.0	0.3	3.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	31.7	31.4	46.1	34.9	23.9	20.8	0.0	20.9	54.4	12.7	15.1
LnGrp LOS	D	C	C	D	C	C	C	A	C	D	B	B
Approach Vol, veh/h		1388			987			44				317
Approach Delay, s/veh		33.1			33.6			20.9				31.9
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	12.1	27.4	6.5	34.0		39.5	14.7	25.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	18.9	5.1	29.5		31.9	11.9	22.7				
Max Q Clear Time (g_c+I1), s	8.0	2.9	3.0	26.8		7.7	10.2	19.8				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.8		0.5	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay				33.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 10: Claremont Blvd & Foothill Blvd
























03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	455	132	152	780	34	180	233	71	60	287	108
Future Volume (veh/h)	164	455	132	152	780	34	180	233	71	60	287	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	495	143	165	848	37	196	253	77	65	312	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	1040	464	207	1010	450	752	988	294	434	931	342
Arrive On Green	0.12	0.29	0.29	0.12	0.28	0.28	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1860	2699	803	1050	2544	935
Grp Volume(v), veh/h	178	495	143	165	848	37	196	165	165	65	216	213
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	930	1777	1726	1050	1777	1702
Q Serve(g_s), s	5.8	6.9	4.2	5.4	13.5	1.0	5.1	3.9	4.0	2.8	5.3	5.4
Cycle Q Clear(g_c), s	5.8	6.9	4.2	5.4	13.5	1.0	10.6	3.9	4.0	6.8	5.3	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		0.55
Lane Grp Cap(c), veh/h	223	1040	464	207	1010	450	752	650	632	434	650	623
V/C Ratio(X)	0.80	0.48	0.31	0.80	0.84	0.08	0.26	0.25	0.26	0.15	0.33	0.34
Avail Cap(c_a), veh/h	282	1143	510	258	1096	489	752	650	632	434	650	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	17.4	16.5	25.8	20.2	15.7	17.6	13.3	13.3	15.7	13.7	13.8
Incr Delay (d2), s/veh	10.7	0.3	0.3	12.8	5.6	0.1	0.8	0.9	1.0	0.7	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.5	1.4	2.8	5.6	0.3	1.0	1.5	1.5	0.7	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	17.7	16.8	38.7	25.8	15.8	18.5	14.2	14.3	16.5	15.1	15.3
LnGrp LOS	D	B	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		816			1050			526			494	
Approach Delay, s/veh		21.6			27.5			15.8			15.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.5	11.5	22.1		26.5	12.0	21.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	8.7	19.3		18.5	9.5	18.5				
Max Q Clear Time (g_c+I1), s		12.6	7.4	8.9		8.8	7.8	15.5				
Green Ext Time (p_c), s		1.5	0.1	2.6		1.9	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay				21.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 10: Claremont Blvd & Foothill Blvd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	978	165	121	624	49	120	254	124	77	197	77
Future Volume (veh/h)	161	978	165	121	624	49	120	254	124	77	197	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	1063	179	132	678	53	130	276	135	84	214	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	1188	530	168	1087	485	835	809	385	370	872	332
Arrive On Green	0.12	0.33	0.33	0.09	0.31	0.31	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2098	2336	1111	975	2518	957
Grp Volume(v), veh/h	175	1063	179	132	678	53	130	208	203	84	149	149
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1049	1777	1670	975	1777	1698
Q Serve(g_s), s	5.7	17.0	5.1	4.3	9.8	1.4	2.8	5.2	5.4	4.2	3.6	3.8
Cycle Q Clear(g_c), s	5.7	17.0	5.1	4.3	9.8	1.4	6.6	5.2	5.4	9.6	3.6	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		0.56
Lane Grp Cap(c), veh/h	219	1188	530	168	1087	485	835	616	579	370	616	588
V/C Ratio(X)	0.80	0.89	0.34	0.79	0.62	0.11	0.16	0.34	0.35	0.23	0.24	0.25
Avail Cap(c_a), veh/h	267	1214	542	193	1087	485	835	616	579	370	616	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.53	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	19.0	15.0	26.6	17.9	15.0	16.4	14.5	14.6	18.2	14.0	14.0
Incr Delay (d2), s/veh	7.4	5.0	0.2	17.0	1.1	0.1	0.4	1.5	1.7	1.4	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.7	1.6	2.5	3.6	0.5	0.6	2.0	2.0	1.0	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	23.9	15.2	43.6	19.0	15.1	16.8	16.0	16.3	19.6	14.9	15.1
LnGrp LOS	C	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1417			863			541			382	
Approach Delay, s/veh		23.9			22.5			16.3			16.0	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.3	10.2	24.6		25.3	11.9	22.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	6.5	20.5		19.5	9.0	18.0				
Max Q Clear Time (g_c+I1), s		8.6	6.3	19.0		11.6	7.7	11.8				
Green Ext Time (p_c), s		2.2	0.0	1.0		1.2	0.1	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

03/19/2024


























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	33	454	231	371	769	67	131	49	282	36	172	55
Future Volume (veh/h)	33	454	231	371	769	67	131	49	282	36	172	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	493	251	403	836	73	142	53	307	39	187	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	759	338	425	1475	658	438	605	539	297	908	283
Arrive On Green	0.04	0.21	0.21	0.24	0.42	0.42	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1133	1777	1585	1022	2667	830
Grp Volume(v), veh/h	36	493	251	403	836	73	142	53	307	39	123	124
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1133	1777	1585	1022	1777	1721
Q Serve(g_s), s	1.3	8.2	9.6	14.5	11.7	1.8	6.6	1.3	10.3	2.1	3.2	3.3
Cycle Q Clear(g_c), s	1.3	8.2	9.6	14.5	11.7	1.8	10.0	1.3	10.3	12.4	3.2	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	65	759	338	425	1475	658	438	605	539	297	605	586
V/C Ratio(X)	0.55	0.65	0.74	0.95	0.57	0.11	0.32	0.09	0.57	0.13	0.20	0.21
Avail Cap(c_a), veh/h	153	984	439	425	1525	680	438	605	539	297	605	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.60	0.60	0.60	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	23.3	23.9	24.4	14.5	11.7	18.8	14.6	17.5	22.6	15.2	15.2
Incr Delay (d2), s/veh	7.0	1.0	4.8	22.1	0.3	0.0	1.7	0.3	3.8	0.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.3	3.8	8.3	4.3	0.6	1.8	0.5	4.0	0.6	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	24.3	28.7	46.5	14.8	11.7	20.5	14.8	21.4	23.5	15.9	16.1
LnGrp LOS	D	C	C	D	B	B	C	B	C	C	B	B
Approach Vol, veh/h		780			1312			502			286	
Approach Delay, s/veh		26.3			24.4			20.4			17.0	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.6	20.0	18.4		26.6	6.9	31.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	15.5	18.0		18.0	5.6	27.9				
Max Q Clear Time (g_c+I1), s		12.3	16.5	11.6		14.4	3.3	13.7				
Green Ext Time (p_c), s		1.4	0.0	2.3		0.5	0.0	5.3				
Intersection Summary												
HCM 6th Ctrl Delay				23.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	721	102	170	446	49	179	74	236	48	55	36
Future Volume (veh/h)	60	721	102	170	446	49	179	74	236	48	55	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	784	111	185	485	53	195	80	257	52	60	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	963	430	230	1227	547	580	666	594	385	802	478
Arrive On Green	0.06	0.27	0.27	0.13	0.35	0.35	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1296	1777	1585	1043	2141	1277
Grp Volume(v), veh/h	65	784	111	185	485	53	195	80	257	52	49	50
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1296	1777	1585	1043	1777	1641
Q Serve(g_s), s	2.1	12.4	3.3	6.1	6.2	1.4	6.9	1.8	7.3	2.3	1.1	1.2
Cycle Q Clear(g_c), s	2.1	12.4	3.3	6.1	6.2	1.4	8.0	1.8	7.3	9.6	1.1	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	98	963	430	230	1227	547	580	666	594	385	666	615
V/C Ratio(X)	0.66	0.81	0.26	0.80	0.40	0.10	0.34	0.12	0.43	0.14	0.07	0.08
Avail Cap(c_a), veh/h	193	1066	476	282	1244	555	580	666	594	385	666	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	20.5	17.1	25.4	14.9	13.3	14.7	12.3	14.0	17.6	12.1	12.1
Incr Delay (d2), s/veh	7.4	4.5	0.3	11.9	0.2	0.1	1.4	0.3	2.1	0.7	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.3	1.1	3.2	2.3	0.5	2.0	0.7	2.7	0.6	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	25.0	17.5	37.3	15.1	13.4	16.1	12.6	16.1	18.3	12.3	12.4
LnGrp LOS	D	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		960			723			532			151	
Approach Delay, s/veh		24.8			20.7			15.6			14.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.0	12.3	20.8		27.0	7.8	25.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	9.5	18.0		19.0	6.5	21.0				
Max Q Clear Time (g_c+I1), s		10.0	8.1	14.4		11.6	4.1	8.2				
Green Ext Time (p_c), s		1.9	0.1	1.9		0.4	0.0	2.8				
Intersection Summary												
HCM 6th Ctrl Delay				20.8								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

03/19/2024



























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	67	426	143	157	935	33	129	110	104	83	182	174
Future Volume (veh/h)	67	426	143	157	935	33	129	110	104	83	182	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	463	155	171	1016	36	140	120	113	90	198	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	987	440	215	1207	538	422	705	597	503	705	597
Arrive On Green	0.06	0.28	0.28	0.12	0.34	0.34	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	997	1870	1585	1147	1870	1585
Grp Volume(v), veh/h	73	463	155	171	1016	36	140	120	113	90	198	189
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	997	1870	1585	1147	1870	1585
Q Serve(g_s), s	2.4	6.5	4.7	5.6	15.9	0.9	6.8	2.6	2.9	3.4	4.4	5.1
Cycle Q Clear(g_c), s	2.4	6.5	4.7	5.6	15.9	0.9	11.3	2.6	2.9	6.0	4.4	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	987	440	215	1207	538	422	705	597	503	705	597
V/C Ratio(X)	0.70	0.47	0.35	0.80	0.84	0.07	0.33	0.17	0.19	0.18	0.28	0.32
Avail Cap(c_a), veh/h	163	1066	476	282	1303	581	422	705	597	503	705	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.38	0.38	0.38	0.39	0.39	0.39	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	18.0	17.4	25.7	18.3	13.4	17.0	12.5	12.5	14.4	13.0	13.2
Incr Delay (d2), s/veh	6.6	0.3	0.4	4.5	1.9	0.0	0.8	0.2	0.3	0.8	1.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.5	1.6	2.5	6.1	0.3	1.5	1.0	1.0	0.9	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	18.3	17.7	30.2	20.2	13.4	17.8	12.7	12.8	15.2	14.0	14.6
LnGrp LOS	C	B	B	C	C	B	B	B	B	B	B	B
Approach Vol, veh/h		691			1223			373			477	
Approach Delay, s/veh		19.8			21.4			14.6			14.5	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.1	11.7	21.2		27.1	8.0	24.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	9.5	18.0		19.0	5.5	22.0				
Max Q Clear Time (g_c+I1), s		13.3	7.6	8.5		8.0	4.4	17.9				
Green Ext Time (p_c), s		0.9	0.1	2.5		1.6	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				18.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary





























2: Mills Ave & Base Line Rd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	769	86	96	491	58	134	100	113	71	76	89
Future Volume (veh/h)	97	769	86	96	491	58	134	100	113	71	76	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	836	93	104	534	63	146	109	123	77	83	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	1044	466	133	1042	465	601	722	612	578	722	612
Arrive On Green	0.08	0.29	0.29	0.07	0.29	0.29	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1315	1870	1585	1284	1870	1585
Grp Volume(v), veh/h	105	836	93	104	534	63	146	109	123	77	83	97
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1315	1870	1585	1284	1870	1585
Q Serve(g_s), s	3.2	11.9	2.4	3.2	6.9	1.6	4.4	2.1	2.8	2.3	1.6	2.2
Cycle Q Clear(g_c), s	3.2	11.9	2.4	3.2	6.9	1.6	6.0	2.1	2.8	4.4	1.6	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	134	1044	466	133	1042	465	601	722	612	578	722	612
V/C Ratio(X)	0.78	0.80	0.20	0.78	0.51	0.14	0.24	0.15	0.20	0.13	0.11	0.16
Avail Cap(c_a), veh/h	165	1169	522	162	1163	519	601	722	612	578	722	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.86	0.86	0.86	0.43	0.43	0.43	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	17.9	14.6	25.0	16.2	14.3	12.8	11.0	11.2	12.4	10.8	11.0
Incr Delay (d2), s/veh	11.3	2.3	0.1	15.8	0.3	0.1	0.4	0.2	0.3	0.5	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	4.6	0.8	1.8	2.5	0.5	1.2	0.8	0.9	0.7	0.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	20.2	14.7	40.9	16.5	14.4	13.2	11.2	11.6	12.9	11.2	11.6
LnGrp LOS	D	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1034			701			378			257	
Approach Delay, s/veh		21.3			19.9			12.1			11.8	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.7	8.6	20.7		25.7	8.6	20.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.4	5.0	18.1		18.4	5.1	18.0				
Max Q Clear Time (g_c+I1), s		8.0	5.2	13.9		6.4	5.2	8.9				
Green Ext Time (p_c), s		1.1	0.0	2.2		0.8	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				18.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 						 	
Traffic Volume (veh/h)	29	412	156	545	880	92	211	68	398	94	81	73
Future Volume (veh/h)	29	412	156	545	880	92	211	68	398	94	81	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	448	170	592	957	100	229	74	433	102	88	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	609	271	668	1180	526	571	630	534	477	610	495
Arrive On Green	0.03	0.17	0.17	0.19	0.33	0.33	0.07	0.34	0.34	0.06	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1862	1513
Grp Volume(v), veh/h	32	448	170	592	957	100	229	74	433	102	84	83
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1598
Q Serve(g_s), s	1.3	9.0	7.5	12.5	18.5	3.4	5.1	2.0	18.7	2.8	2.5	2.8
Cycle Q Clear(g_c), s	1.3	9.0	7.5	12.5	18.5	3.4	5.1	2.0	18.7	2.8	2.5	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	58	609	271	668	1180	526	571	630	534	477	582	523
V/C Ratio(X)	0.55	0.74	0.63	0.89	0.81	0.19	0.40	0.12	0.81	0.21	0.14	0.16
Avail Cap(c_a), veh/h	119	853	380	668	1303	581	571	630	534	491	582	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	29.5	28.8	29.4	22.9	17.9	16.3	17.2	22.7	15.0	17.8	17.9
Incr Delay (d2), s/veh	7.3	1.9	2.2	13.6	3.7	0.2	0.4	0.4	11.8	0.2	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.7	2.8	6.0	7.4	1.1	2.5	0.9	7.9	1.0	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	31.4	31.0	43.1	26.5	18.0	16.8	17.5	34.5	15.2	18.3	18.6
LnGrp LOS	D	C	C	D	C	B	B	B	C	B	B	B
Approach Vol, veh/h		650			1649			736			269	
Approach Delay, s/veh		31.8			32.0			27.3			17.2	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	29.8	19.0	17.3	9.6	29.1	6.9	29.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.5	14.5	18.0	5.1	19.4	5.0	27.5				
Max Q Clear Time (g_c+I1), s	4.8	20.7	14.5	11.0	7.1	4.8	3.3	20.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	0.7	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay				29.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	53	778	174	488	490	148	159	131	592	103	73	43
Future Volume (veh/h)	53	778	174	488	490	148	159	131	592	103	73	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	846	189	530	533	161	173	142	643	112	79	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	911	406	583	1349	602	537	538	456	359	596	329
Arrive On Green	0.05	0.26	0.26	0.17	0.38	0.38	0.08	0.29	0.29	0.06	0.27	0.27
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2208	1220
Grp Volume(v), veh/h	58	846	189	530	533	161	173	142	643	112	62	64
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1651
Q Serve(g_s), s	2.6	18.6	8.1	12.0	8.8	5.6	5.6	4.7	23.0	3.6	2.1	2.3
Cycle Q Clear(g_c), s	2.6	18.6	8.1	12.0	8.8	5.6	5.6	4.7	23.0	3.6	2.1	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.74
Lane Grp Cap(c), veh/h	81	911	406	583	1349	602	537	538	456	359	480	446
V/C Ratio(X)	0.72	0.93	0.47	0.91	0.39	0.27	0.32	0.26	1.41	0.31	0.13	0.14
Avail Cap(c_a), veh/h	154	911	406	583	1349	602	537	538	456	359	480	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	29.0	25.1	32.6	18.1	17.1	18.8	22.0	28.5	19.1	22.1	22.2
Incr Delay (d2), s/veh	8.3	12.0	0.6	18.3	0.2	0.2	0.3	1.1	196.4	0.5	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.7	2.9	6.1	3.2	1.9	2.2	2.1	32.7	1.4	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	41.1	25.7	50.9	18.3	17.4	19.1	23.1	224.9	19.6	22.7	22.8
LnGrp LOS	D	D	C	D	B	B	B	C	F	B	C	C
Approach Vol, veh/h		1093			1224			958			238	
Approach Delay, s/veh		38.7			32.3			157.8			21.3	
Approach LOS		D			C			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	27.5	18.0	25.0	10.9	26.1	8.1	34.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	23.0	13.5	20.5	6.4	21.6	6.9	27.1				
Max Q Clear Time (g_c+I1), s	5.6	25.0	14.0	20.6	7.6	4.3	4.6	10.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.5	0.0	3.4				
Intersection Summary												
HCM 6th Ctrl Delay			67.8									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘		↗↗	↘		↗
Traffic Volume (veh/h)	103	287	511	30	772	668	171	0	442	43	0	571
Future Volume (veh/h)	103	287	511	30	772	668	171	0	442	43	0	571
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	112	312	555	33	839	726	186	0	480	47	0	621
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	142	1060	473	58	893	398	891	0	0	891	0	0
Arrive On Green	0.08	0.30	0.30	0.03	0.25	0.25	0.50	0.00	0.00	0.50	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	186		1781	47	
Grp Volume(v), veh/h	112	312	555	33	839	726	186	11.3		47	10.3	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	4.9	5.4	23.9	1.5	18.5	20.1	4.7			1.1		
Cycle Q Clear(g_c), s	4.9	5.4	23.9	1.5	18.5	20.1	4.7			1.1		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	142	1060	473	58	893	398	891			891		
V/C Ratio(X)	0.79	0.29	1.17	0.57	0.94	1.82	0.21			0.05		
Avail Cap(c_a), veh/h	143	1060	473	114	893	398	891			891		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	36.2	21.6	28.1	38.2	29.4	29.9	11.1			10.3		
Incr Delay (d2), s/veh	25.1	0.2	98.6	8.5	17.3	380.1	0.1			0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	3.0	2.1	21.1	0.7	9.3	49.0	1.6			0.4		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	21.7	126.6	46.7	46.7	410.1	11.3			10.3		
LnGrp LOS	E	C	F	D	D	F	B			B		
Approach Vol, veh/h		979			1598							
Approach Delay, s/veh		85.7			211.8							
Approach LOS		F			F							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	44.5		7.1	28.4	44.5		10.9	24.6				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	6.4		5.1	21.4	9.5		6.4	20.1				
Max Q Clear Time (g_c+I1), s	3.1		3.5	25.9	6.7		6.9	22.1				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			151.2									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘		↗↘	↘		↗
Traffic Volume (veh/h)	157	845	471	33	486	395	127	0	859	80	0	517
Future Volume (veh/h)	157	845	471	33	486	395	127	0	859	80	0	517
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	171	918	512	36	528	429	138	0	934	87	0	562
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	209	1145	511	63	853	380	824	0	0	824	0	0
Arrive On Green	0.12	0.32	0.32	0.04	0.24	0.24	0.46	0.00	0.00	0.46	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	138		1781	87	
Grp Volume(v), veh/h	171	918	512	36	528	429	138	11.8		87	11.4	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	7.0	17.7	24.2	1.5	9.9	18.0	3.4			2.1		
Cycle Q Clear(g_c), s	7.0	17.7	24.2	1.5	9.9	18.0	3.4			2.1		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	209	1145	511	63	853	380	824			824		
V/C Ratio(X)	0.82	0.80	1.00	0.57	0.62	1.13	0.17			0.11		
Avail Cap(c_a), veh/h	226	1145	511	119	853	380	824			824		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	32.3	23.2	25.4	35.6	25.4	28.5	11.7			11.4		
Incr Delay (d2), s/veh	19.5	4.2	40.5	8.0	1.4	85.5	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	3.9	7.2	13.7	0.7	4.0	15.2	1.2			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	27.4	66.0	43.7	26.8	114.0	11.8			11.4		
LnGrp LOS	D	C	F	D	C	F	B			B		
Approach Vol, veh/h		1601			993							
Approach Delay, s/veh		42.4			65.1							
Approach LOS		D			E							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	39.2		7.1	28.7	39.2		13.3	22.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	5.5		5.0	22.5	7.5		9.5	18.0				
Max Q Clear Time (g_c+I1), s	4.1		3.5	26.2	5.4		9.0	20.0				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			47.9									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	187	2	14	1	0	0	11	464	1	0	422	310
Future Volume (vph)	187	2	14	1	0	0	11	464	1	0	422	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95			0.95	1.00
Frt	1.00	1.00	0.85		1.00		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1613	1504		1770		1770	3538			3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1613	1504		1863		1770	3538			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	203	2	15	1	0	0	12	504	1	0	459	337
RTOR Reduction (vph)	0	1	12	0	0	0	0	0	0	0	0	126
Lane Group Flow (vph)	104	102	1	0	1	0	12	505	0	0	459	211
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	9.1	9.1	9.1		1.2		1.5	56.2			50.2	50.2
Effective Green, g (s)	9.1	9.1	9.1		1.2		1.5	56.2			50.2	50.2
Actuated g/C Ratio	0.11	0.11	0.11		0.01		0.02	0.70			0.63	0.63
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	191	183	171		27		33	2485			2220	993
v/s Ratio Prot	0.06	c0.06					0.01	c0.14			0.13	
v/s Ratio Perm			0.00		c0.00							0.13
v/c Ratio	0.54	0.56	0.01		0.04		0.36	0.20			0.21	0.21
Uniform Delay, d1	33.5	33.5	31.4		38.8		38.8	4.1			6.4	6.4
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	3.2	3.7	0.0		0.6		6.7	0.2			0.2	0.5
Delay (s)	36.6	37.2	31.5		39.4		45.5	4.3			6.6	6.9
Level of Service	D	D	C		D		D	A			A	A
Approach Delay (s)		36.6			39.4			5.3			6.7	
Approach LOS		D			D			A			A	

Intersection Summary		
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio	0.27	
Actuated Cycle Length (s)	80.0	Sum of lost time (s) 18.0
Intersection Capacity Utilization	38.8%	ICU Level of Service A
Analysis Period (min)	15	

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	328	0	21	3	9	1	19	501	1	1	471	216
Future Volume (vph)	328	0	21	3	9	1	19	501	1	1	471	216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1613	1504		1825		1770	3538		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.45	1.00	1.00
Satd. Flow (perm)	1681	1613	1504		1845		1770	3538		835	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	357	0	23	3	10	1	21	545	1	1	512	235
RTOR Reduction (vph)	0	119	17	0	1	0	0	0	0	0	0	106
Lane Group Flow (vph)	178	62	4	0	13	0	21	546	0	1	512	129
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	13.6	13.6	13.6		1.5		3.0	51.4		43.9	43.9	43.9
Effective Green, g (s)	13.6	13.6	13.6		1.5		3.0	51.4		43.9	43.9	43.9
Actuated g/C Ratio	0.17	0.17	0.17		0.02		0.04	0.64		0.55	0.55	0.55
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	285	274	255		34		66	2273		458	1942	868
v/s Ratio Prot	c0.11	0.04					0.01	c0.15			c0.14	
v/s Ratio Perm			0.00		c0.01					0.00		0.08
v/c Ratio	0.62	0.23	0.01		0.38		0.32	0.24		0.00	0.26	0.15
Uniform Delay, d1	30.8	28.7	27.6		38.8		37.5	6.0		8.2	9.5	8.9
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		0.36	0.29	0.04
Incremental Delay, d2	4.2	0.4	0.0		7.0		2.8	0.3		0.0	0.2	0.3
Delay (s)	35.1	29.1	27.6		45.8		40.3	6.3		2.9	3.0	0.6
Level of Service	D	C	C		D		D	A		A	A	A
Approach Delay (s)		31.8			45.8			7.6			2.3	
Approach LOS		C			D			A			A	

Intersection Summary

HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary

6: Foothill Blvd & Indian Hill Blvd

03/19/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷	↷	↶	↷		↶	↷	↷
Traffic Volume (veh/h)	102	601	120	92	758	138	145	325	83	183	387	166
Future Volume (veh/h)	102	601	120	92	758	138	145	325	83	183	387	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	653	130	100	824	150	158	353	90	199	421	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	780	155	128	911	406	194	817	206	238	590	500
Arrive On Green	0.08	0.26	0.26	0.07	0.26	0.26	0.11	0.29	0.29	0.13	0.32	0.32
Sat Flow, veh/h	1781	2954	587	1781	3554	1585	1781	2812	708	1781	1870	1585
Grp Volume(v), veh/h	111	392	391	100	824	150	158	221	222	199	421	180
Grp Sat Flow(s),veh/h/ln	1781	1777	1765	1781	1777	1585	1781	1777	1743	1781	1870	1585
Q Serve(g_s), s	4.6	15.6	15.7	4.1	16.8	5.8	6.5	7.6	7.8	8.2	14.9	6.6
Cycle Q Clear(g_c), s	4.6	15.6	15.7	4.1	16.8	5.8	6.5	7.6	7.8	8.2	14.9	6.6
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	141	469	466	128	911	406	194	516	507	238	590	500
V/C Ratio(X)	0.79	0.84	0.84	0.78	0.90	0.37	0.81	0.43	0.44	0.84	0.71	0.36
Avail Cap(c_a), veh/h	154	486	482	131	924	412	202	516	507	249	590	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	33.9	26.1	26.1	34.2	27.0	22.9	32.7	21.6	21.6	31.7	22.7	19.8
Incr Delay (d2), s/veh	21.6	11.8	12.1	25.5	12.1	0.6	21.2	2.6	2.7	16.3	5.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	7.6	7.6	2.6	8.1	2.1	3.8	3.3	3.4	4.5	7.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	37.9	38.2	59.8	39.1	23.5	53.8	24.1	24.4	48.0	28.2	21.4
LnGrp LOS	E	D	D	E	D	C	D	C	C	D	C	C
Approach Vol, veh/h		894			1074			601			800	
Approach Delay, s/veh		40.2			38.8			32.0			31.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.5	26.3	9.9	24.3	12.7	28.1	10.4	23.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	20.5	5.5	20.5	8.5	22.5	6.5	19.5				
Max Q Clear Time (g_c+I1), s	10.2	9.8	6.1	17.7	8.5	16.9	6.6	18.8				
Green Ext Time (p_c), s	0.0	1.9	0.0	1.3	0.0	1.6	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			36.3									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

6: Foothill Blvd & Indian Hill Blvd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	818	126	110	714	114	205	306	127	146	240	84
Future Volume (veh/h)	56	818	126	110	714	114	205	306	127	146	240	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	889	137	120	776	124	223	333	138	159	261	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	959	148	148	1242	554	258	734	299	193	489	414
Arrive On Green	0.04	0.31	0.31	0.17	0.70	0.70	0.15	0.30	0.30	0.11	0.26	0.26
Sat Flow, veh/h	1781	3086	476	1781	3554	1585	1781	2464	1002	1781	1870	1585
Grp Volume(v), veh/h	61	512	514	120	776	124	223	238	233	159	261	91
Grp Sat Flow(s),veh/h/ln	1781	1777	1785	1781	1777	1585	1781	1777	1690	1781	1870	1585
Q Serve(g_s), s	3.1	25.1	25.1	5.8	10.5	2.5	11.0	9.8	10.1	7.9	10.8	4.0
Cycle Q Clear(g_c), s	3.1	25.1	25.1	5.8	10.5	2.5	11.0	9.8	10.1	7.9	10.8	4.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	79	552	554	148	1242	554	258	530	504	193	489	414
V/C Ratio(X)	0.78	0.93	0.93	0.81	0.62	0.22	0.86	0.45	0.46	0.82	0.53	0.22
Avail Cap(c_a), veh/h	156	563	565	168	1242	554	287	530	504	232	489	414
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	42.6	30.0	30.0	36.9	10.4	9.2	37.6	25.6	25.7	39.3	28.5	26.1
Incr Delay (d2), s/veh	15.0	21.5	21.5	22.8	1.0	0.2	21.2	2.8	3.0	16.8	3.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	13.3	13.3	3.2	2.7	0.8	6.2	4.4	4.3	4.3	5.2	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	51.6	51.5	59.6	11.4	9.4	58.8	28.4	28.7	56.1	32.4	27.2
LnGrp LOS	E	D	D	E	B	A	E	C	C	E	C	C
Approach Vol, veh/h		1087			1020			694			511	
Approach Delay, s/veh		51.9			16.8			38.3			38.8	
Approach LOS		D			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.2	31.3	12.0	32.5	17.6	28.0	8.5	36.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.7	23.3	8.5	28.5	14.5	20.5	7.9	29.1				
Max Q Clear Time (g_c+I1), s	9.9	12.1	7.8	27.1	13.0	12.8	5.1	12.5				
Green Ext Time (p_c), s	0.1	2.1	0.0	0.9	0.1	1.1	0.0	5.0				
Intersection Summary												
HCM 6th Ctrl Delay			36.2									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↘			↗			↘
Traffic Vol, veh/h	22	846	80	128	1098	10	0	0	94	0	0	8
Future Vol, veh/h	22	846	80	128	1098	10	0	0	94	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	920	87	139	1193	11	0	0	102	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1204	0	0	1007	0	0	-	-	460	-	-	597
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	575	-	-	684	-	-	0	0	548	0	0	446
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	575	-	-	684	-	-	-	-	548	-	-	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			1.2			13.1			13.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	548	575	-	-	684	-	-	446
HCM Lane V/C Ratio	0.186	0.042	-	-	0.203	-	-	0.019
HCM Control Delay (s)	13.1	11.5	-	-	11.6	-	-	13.2
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.8	-	-	0.1

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗			↗			↗
Traffic Vol, veh/h	22	1077	59	74	952	5	0	0	127	0	0	28
Future Vol, veh/h	22	1077	59	74	952	5	0	0	127	0	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	1171	64	80	1035	5	0	0	138	0	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1040	0	0	1235	0	0	-	-	586	-	-	518
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	664	-	-	560	-	-	0	0	454	0	0	502
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	664	-	-	560	-	-	-	-	454	-	-	502
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.9			16.4			12.6		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	454	664	-	-	560	-	-	502
HCM Lane V/C Ratio	0.304	0.036	-	-	0.144	-	-	0.061
HCM Control Delay (s)	16.4	10.6	-	-	12.5	-	-	12.6
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.3	0.1	-	-	0.5	-	-	0.2

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↕			↕	
Traffic Volume (veh/h)	4	857	83	73	1230	11	10	3	17	11	7	0
Future Volume (veh/h)	4	857	83	73	1230	11	10	3	17	11	7	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	932	90	79	1337	12	11	3	18	12	8	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	1617	721	288	1642	15	254	96	337	437	267	0
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.38	0.38	0.38	0.38	0.00
Sat Flow, veh/h	404	3554	1585	601	3609	32	434	252	882	871	699	0
Grp Volume(v), veh/h	4	932	90	79	658	691	32	0	0	20	0	0
Grp Sat Flow(s),veh/h/ln	404	1777	1585	601	1777	1865	1569	0	0	1570	0	0
Q Serve(g_s), s	0.5	10.7	1.8	6.2	17.6	17.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.1	10.7	1.8	16.8	17.6	17.6	0.7	0.0	0.0	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.34		0.56	0.60		0.00
Lane Grp Cap(c), veh/h	185	1617	721	288	808	848	686	0	0	704	0	0
V/C Ratio(X)	0.02	0.58	0.12	0.27	0.81	0.81	0.05	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	203	1777	793	315	888	932	686	0	0	704	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.37	0.37	0.37	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.8	11.1	8.7	17.3	13.0	13.0	10.7	0.0	0.0	10.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.1	0.2	2.1	2.0	0.1	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.5	0.5	0.8	6.2	6.4	0.2	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	11.5	8.7	17.5	15.1	15.0	10.9	0.0	0.0	10.7	0.0	0.0
LnGrp LOS	C	B	A	B	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1026			1428			32			20	
Approach Delay, s/veh		11.3			15.2			10.9			10.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.5		29.5		25.5		29.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		27.5		18.5		27.5				
Max Q Clear Time (g_c+I1), s		2.7		20.1		2.4		19.6				
Green Ext Time (p_c), s		0.1		3.9		0.0		5.4				
Intersection Summary												
HCM 6th Ctrl Delay				13.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑	↖	↗	↑↑			↕			↕	
Traffic Volume (veh/h)	9	1383	21	12	976	12	85	10	86	28	8	0
Future Volume (veh/h)	9	1383	21	12	976	12	85	10	86	28	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1503	23	13	1061	13	92	11	93	30	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	275	1787	797	168	1808	22	307	60	252	479	131	0
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.00
Sat Flow, veh/h	525	3554	1585	349	3595	44	631	174	727	1074	376	0
Grp Volume(v), veh/h	10	1503	23	13	524	550	196	0	0	39	0	0
Grp Sat Flow(s),veh/h/ln	525	1777	1585	349	1777	1862	1531	0	0	1451	0	0
Q Serve(g_s), s	0.8	21.9	0.4	2.0	12.5	12.5	3.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.3	21.9	0.4	23.9	12.5	12.5	5.5	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.47		0.47	0.77		0.00
Lane Grp Cap(c), veh/h	275	1787	797	168	894	937	620	0	0	610	0	0
V/C Ratio(X)	0.04	0.84	0.03	0.08	0.59	0.59	0.32	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	295	1925	859	182	962	1009	620	0	0	610	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.62	0.62	0.62	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.2	12.8	7.5	23.1	10.5	10.5	14.5	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	3.3	0.0	0.1	0.5	0.5	1.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	7.9	0.1	0.2	4.1	4.3	2.0	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	16.2	7.5	23.2	11.0	11.0	15.9	0.0	0.0	13.3	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1536			1087			196			39	
Approach Delay, s/veh		16.0			11.2			15.9			13.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.3		34.7		25.3		34.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		7.5		23.9		2.9		25.9				
Green Ext Time (p_c), s		0.8		6.3		0.1		3.7				
Intersection Summary												
HCM 6th Ctrl Delay				14.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↖		↕	↖	↖	↕	↖
Traffic Volume (veh/h)	168	643	6	9	938	119	2	1	9	141	4	347
Future Volume (veh/h)	168	643	6	9	938	119	2	1	9	141	4	347
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	699	7	10	1020	129	2	1	10	153	4	377
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	1538	15	22	1126	502	261	118	407	186	769	651
Arrive On Green	0.12	0.43	0.43	0.01	0.32	0.32	0.26	0.26	0.26	0.10	0.41	0.41
Sat Flow, veh/h	1781	3605	36	1781	3554	1585	756	459	1585	1781	1870	1585
Grp Volume(v), veh/h	183	345	361	10	1020	129	3	0	10	153	4	377
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	1781	1777	1585	1215	0	1585	1781	1870	1585
Q Serve(g_s), s	9.0	12.4	12.4	0.5	24.8	5.4	0.0	0.0	0.4	7.6	0.1	16.5
Cycle Q Clear(g_c), s	9.0	12.4	12.4	0.5	24.8	5.4	0.1	0.0	0.4	7.6	0.1	16.5
Prop In Lane	1.00		0.02	1.00		1.00	0.67		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	758	795	22	1126	502	378	0	407	186	769	651
V/C Ratio(X)	0.84	0.45	0.45	0.46	0.91	0.26	0.01	0.00	0.02	0.82	0.01	0.58
Avail Cap(c_a), veh/h	247	758	795	99	1165	520	378	0	407	208	769	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.71	0.71	0.71	1.00	0.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	38.6	18.3	18.3	44.1	29.5	22.9	24.9	0.0	25.0	39.5	15.6	20.5
Incr Delay (d2), s/veh	17.1	0.3	0.3	10.2	7.5	0.2	0.0	0.0	0.1	19.5	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	4.8	5.0	0.3	11.0	2.0	0.1	0.0	0.2	4.2	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	18.7	18.7	54.3	37.0	23.1	24.9	0.0	25.1	58.9	15.7	23.9
LnGrp LOS	E	B	B	D	D	C	C	A	C	E	B	C
Approach Vol, veh/h		889			1159			13				534
Approach Delay, s/veh		26.3			35.6			25.1				33.9
Approach LOS		C			D			C				C
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	13.9	27.6	5.6	42.9		41.5	15.5	33.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	19.5	5.0	37.0		34.5	12.5	29.5				
Max Q Clear Time (g_c+I1), s	9.6	2.4	2.5	14.4		18.5	11.0	26.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	4.1		1.2	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				32.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	1097	7	21	761	126	11	7	22	125	4	163
Future Volume (veh/h)	173	1097	7	21	761	126	11	7	22	125	4	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	1192	8	23	827	137	12	8	24	136	4	177
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	1336	9	45	949	423	299	182	453	169	818	693
Arrive On Green	0.13	0.37	0.37	0.03	0.27	0.27	0.29	0.29	0.29	0.10	0.44	0.44
Sat Flow, veh/h	1781	3619	24	1781	3554	1585	793	638	1585	1781	1870	1585
Grp Volume(v), veh/h	188	585	615	23	827	137	20	0	24	136	4	177
Grp Sat Flow(s),veh/h/ln	1781	1777	1866	1781	1777	1585	1431	0	1585	1781	1870	1585
Q Serve(g_s), s	8.2	24.8	24.8	1.0	17.8	5.5	0.0	0.0	0.9	6.0	0.1	5.7
Cycle Q Clear(g_c), s	8.2	24.8	24.8	1.0	17.8	5.5	0.6	0.0	0.9	6.0	0.1	5.7
Prop In Lane	1.00		0.01	1.00		1.00	0.60		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	656	689	45	949	423	481	0	453	169	818	693
V/C Ratio(X)	0.83	0.89	0.89	0.52	0.87	0.32	0.04	0.00	0.05	0.80	0.00	0.26
Avail Cap(c_a), veh/h	265	656	689	114	1008	450	481	0	453	189	818	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.49	0.49	0.49	0.84	0.84	0.84	1.00	0.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	34.1	23.7	23.7	38.5	28.0	23.5	20.6	0.0	20.7	35.5	12.7	14.3
Incr Delay (d2), s/veh	9.3	8.0	7.6	7.6	6.9	0.4	0.2	0.0	0.2	18.9	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	10.8	11.2	0.5	7.9	2.0	0.3	0.0	0.3	3.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	31.7	31.4	46.1	34.9	23.9	20.8	0.0	20.9	54.4	12.7	15.1
LnGrp LOS	D	C	C	D	C	C	C	A	C	D	B	B
Approach Vol, veh/h		1388			987			44				317
Approach Delay, s/veh		33.1			33.6			20.9				31.9
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	12.1	27.4	6.5	34.0		39.5	14.7	25.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	18.9	5.1	29.5		31.9	11.9	22.7				
Max Q Clear Time (g_c+I1), s	8.0	2.9	3.0	26.8		7.7	10.2	19.8				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.8		0.5	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay				33.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 10: Claremont Blvd & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘↘	↗↗		↘	↗↗	
Traffic Volume (veh/h)	164	455	132	152	780	34	180	233	71	60	287	108
Future Volume (veh/h)	164	455	132	152	780	34	180	233	71	60	287	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	495	143	165	848	37	196	253	77	65	312	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	1040	464	207	1010	450	752	988	294	434	931	342
Arrive On Green	0.12	0.29	0.29	0.12	0.28	0.28	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1860	2699	803	1050	2544	935
Grp Volume(v), veh/h	178	495	143	165	848	37	196	165	165	65	216	213
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	930	1777	1726	1050	1777	1702
Q Serve(g_s), s	5.8	6.9	4.2	5.4	13.5	1.0	5.1	3.9	4.0	2.8	5.3	5.4
Cycle Q Clear(g_c), s	5.8	6.9	4.2	5.4	13.5	1.0	10.6	3.9	4.0	6.8	5.3	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		0.55
Lane Grp Cap(c), veh/h	223	1040	464	207	1010	450	752	650	632	434	650	623
V/C Ratio(X)	0.80	0.48	0.31	0.80	0.84	0.08	0.26	0.25	0.26	0.15	0.33	0.34
Avail Cap(c_a), veh/h	282	1143	510	258	1096	489	752	650	632	434	650	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	17.4	16.5	25.8	20.2	15.7	17.6	13.3	13.3	15.7	13.7	13.8
Incr Delay (d2), s/veh	10.7	0.3	0.3	12.8	5.6	0.1	0.8	0.9	1.0	0.7	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.5	1.4	2.8	5.6	0.3	1.0	1.5	1.5	0.7	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	17.7	16.8	38.7	25.8	15.8	18.5	14.2	14.3	16.5	15.1	15.3
LnGrp LOS	D	B	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		816			1050			526			494	
Approach Delay, s/veh		21.6			27.5			15.8			15.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.5	11.5	22.1		26.5	12.0	21.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	8.7	19.3		18.5	9.5	18.5				
Max Q Clear Time (g_c+I1), s		12.6	7.4	8.9		8.8	7.8	15.5				
Green Ext Time (p_c), s		1.5	0.1	2.6		1.9	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay				21.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 10: Claremont Blvd & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	978	165	121	624	49	120	254	124	77	197	77
Future Volume (veh/h)	161	978	165	121	624	49	120	254	124	77	197	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	1063	179	132	678	53	130	276	135	84	214	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	1188	530	168	1087	485	835	809	385	370	872	332
Arrive On Green	0.12	0.33	0.33	0.09	0.31	0.31	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2098	2336	1111	975	2518	957
Grp Volume(v), veh/h	175	1063	179	132	678	53	130	208	203	84	149	149
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1049	1777	1670	975	1777	1698
Q Serve(g_s), s	5.7	17.0	5.1	4.3	9.8	1.4	2.8	5.2	5.4	4.2	3.6	3.8
Cycle Q Clear(g_c), s	5.7	17.0	5.1	4.3	9.8	1.4	6.6	5.2	5.4	9.6	3.6	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		0.56
Lane Grp Cap(c), veh/h	219	1188	530	168	1087	485	835	616	579	370	616	588
V/C Ratio(X)	0.80	0.89	0.34	0.79	0.62	0.11	0.16	0.34	0.35	0.23	0.24	0.25
Avail Cap(c_a), veh/h	267	1214	542	193	1087	485	835	616	579	370	616	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.53	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	19.0	15.0	26.6	17.9	15.0	16.4	14.5	14.6	18.2	14.0	14.0
Incr Delay (d2), s/veh	7.4	5.0	0.2	17.0	1.1	0.1	0.4	1.5	1.7	1.4	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.7	1.6	2.5	3.6	0.5	0.6	2.0	2.0	1.0	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	23.9	15.2	43.6	19.0	15.1	16.8	16.0	16.3	19.6	14.9	15.1
LnGrp LOS	C	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1417			863			541			382	
Approach Delay, s/veh		23.9			22.5			16.3			16.0	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.3	10.2	24.6		25.3	11.9	22.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	6.5	20.5		19.5	9.0	18.0				
Max Q Clear Time (g_c+I1), s		8.6	6.3	19.0		11.6	7.7	11.8				
Green Ext Time (p_c), s		2.2	0.0	1.0		1.2	0.1	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑↗	
Traffic Volume (veh/h)	34	468	86	98	770	168	141	340	85	94	282	46
Future Volume (veh/h)	34	468	86	98	770	168	141	340	85	94	282	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	493	91	103	811	177	148	358	89	99	297	48
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	853	380	224	953	425	247	1259	561	221	1543	242
Arrive On Green	0.04	0.24	0.24	0.06	0.27	0.27	0.07	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4451	698
Grp Volume(v), veh/h	36	493	91	103	811	177	148	358	89	99	225	120
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1745
Q Serve(g_s), s	1.3	8.0	3.0	1.9	14.1	6.0	2.7	4.7	2.5	1.8	3.0	3.1
Cycle Q Clear(g_c), s	1.3	8.0	3.0	1.9	14.1	6.0	2.7	4.7	2.5	1.8	3.0	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	65	853	380	224	953	425	247	1259	561	221	1180	605
V/C Ratio(X)	0.55	0.58	0.24	0.46	0.85	0.42	0.60	0.28	0.16	0.45	0.19	0.20
Avail Cap(c_a), veh/h	137	995	444	282	1011	451	266	1259	561	266	1180	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	21.8	19.9	29.3	22.6	19.6	29.3	15.1	14.4	29.3	14.9	14.9
Incr Delay (d2), s/veh	7.0	0.6	0.3	0.1	0.7	0.1	3.2	0.6	0.6	1.4	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.0	1.0	0.7	5.3	2.0	1.1	1.7	0.9	0.7	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	22.4	20.2	29.4	23.2	19.7	32.5	15.6	15.0	30.7	15.2	15.6
LnGrp LOS	D	C	C	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		620			1091			595			444	
Approach Delay, s/veh		23.0			23.2			19.7			18.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	27.5	8.7	20.1	9.2	27.0	6.9	21.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.5	5.3	18.2	5.0	18.5	5.0	18.5				
Max Q Clear Time (g_c+I1), s	3.8	6.7	3.9	10.0	4.7	5.1	3.3	16.1				
Green Ext Time (p_c), s	0.0	1.8	0.0	2.1	0.0	1.5	0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay				21.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑↗	
Traffic Volume (veh/h)	64	945	169	127	583	164	153	276	125	173	419	43
Future Volume (veh/h)	64	945	169	127	583	164	153	276	125	173	419	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	995	178	134	614	173	161	291	132	182	441	45
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	1007	449	246	1066	476	256	1007	449	272	1358	136
Arrive On Green	0.05	0.28	0.28	0.07	0.30	0.30	0.07	0.28	0.28	0.08	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4715	474
Grp Volume(v), veh/h	67	995	178	134	614	173	161	291	132	182	317	169
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1785
Q Serve(g_s), s	2.3	17.7	5.8	2.4	9.3	5.4	2.9	4.1	4.1	3.3	4.6	4.7
Cycle Q Clear(g_c), s	2.3	17.7	5.8	2.4	9.3	5.4	2.9	4.1	4.1	3.3	4.6	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	97	1007	449	246	1066	476	256	1007	449	272	980	514
V/C Ratio(X)	0.69	0.99	0.40	0.54	0.58	0.36	0.63	0.29	0.29	0.67	0.32	0.33
Avail Cap(c_a), veh/h	140	1007	449	272	1066	476	272	1007	449	272	980	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	22.7	18.4	28.5	18.8	17.5	28.6	17.8	17.8	28.5	17.8	17.8
Incr Delay (d2), s/veh	8.4	25.4	0.6	1.9	0.8	0.5	4.2	0.7	1.7	6.2	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	10.0	1.9	1.0	3.4	1.8	1.2	1.5	1.5	1.5	1.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	48.1	18.9	30.4	19.6	17.9	32.7	18.5	19.5	34.6	18.6	19.5
LnGrp LOS	D	D	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		1240			921			584			668	
Approach Delay, s/veh		43.3			20.8			22.6			23.2	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.0	22.5	9.2	22.8	8.0	23.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.3	6.1	4.4	19.7	4.9	6.7	4.3	11.3				
Green Ext Time (p_c), s	0.0	1.6	0.0	0.0	0.0	2.1	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				29.8								
HCM 6th LOS				C								

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↗	↖	↖↖	↗↗		↖	↖↖	↖		↗↗	
Traffic Volume (vph)	4	506	106	206	927	0	146	0	188	0	0	1
Future Volume (vph)	4	506	106	206	927	0	146	0	188	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.89	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1490	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1490	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	533	112	217	976	0	154	0	198	0	0	1
RTOR Reduction (vph)	0	0	80	0	0	0	0	81	78	0	1	0
Lane Group Flow (vph)	4	533	32	217	976	0	122	36	35	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.8	17.2	17.2	5.1	21.5		18.3	18.3	18.3		0.9	
Effective Green, g (s)	0.8	17.2	17.2	5.1	21.5		18.3	18.3	18.3		0.9	
Actuated g/C Ratio	0.01	0.29	0.29	0.09	0.36		0.31	0.31	0.31		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	23	1023	457	294	1278		517	458	462		45	
v/s Ratio Prot	0.00	0.15		c0.06	c0.28		c0.07	0.02			c0.00	
v/s Ratio Perm			0.02						0.02			
v/c Ratio	0.17	0.52	0.07	0.74	0.76		0.24	0.08	0.08		0.00	
Uniform Delay, d1	29.0	17.7	15.4	26.5	16.8		15.4	14.6	14.6		28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.6	0.5	0.1	9.3	2.8		1.1	0.3	0.3		0.0	
Delay (s)	32.6	18.2	15.4	35.9	19.5		16.5	15.0	14.9		28.9	
Level of Service	C	B	B	D	B		B	B	B		C	
Approach Delay (s)		17.8			22.5			15.5			28.9	
Approach LOS		B			C			B			C	

Intersection Summary

HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	59.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1045	180	256	725	1	146	1	375	0	2	0
Future Volume (vph)	4	1045	180	256	725	1	146	1	375	0	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1455	1504		3539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1455	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	1100	189	269	763	1	154	1	395	0	2	0
RTOR Reduction (vph)	0	0	98	0	0	0	0	136	147	0	0	0
Lane Group Flow (vph)	4	1100	91	269	764	0	139	70	58	0	2	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2			6	
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	411	425		55	
v/s Ratio Prot	0.00	c0.31		c0.08	c0.22		c0.08	0.05			c0.00	
v/s Ratio Perm			0.06						0.04			
v/c Ratio	0.17	0.91	0.17	1.00	0.53		0.29	0.17	0.14		0.04	
Uniform Delay, d1	31.2	20.1	14.7	29.5	14.4		17.9	17.3	17.1		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.3	10.0	0.1	55.9	0.4		1.6	0.9	0.7		0.3	
Delay (s)	34.5	30.1	14.8	85.4	14.8		19.5	18.2	17.8		31.3	
Level of Service	C	C	B	F	B		B	B	B		C	
Approach Delay (s)		27.8			33.2			18.4			31.3	
Approach LOS		C			C			B			C	

Intersection Summary

HCM 2000 Control Delay	27.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	62.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	11	3	25	8	27	3	586	83	33	690	2
Future Vol, veh/h	0	11	3	25	8	27	3	586	83	33	690	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	3	27	9	29	3	637	90	36	750	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1530	1556	751	1519	1512	682	752	0	0	727	0	0
Stage 1	823	823	-	688	688	-	-	-	-	-	-	-
Stage 2	707	733	-	831	824	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	96	113	411	97	120	450	858	-	-	876	-	-
Stage 1	368	388	-	436	447	-	-	-	-	-	-	-
Stage 2	426	426	-	364	387	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	82	108	411	85	115	450	858	-	-	876	-	-
Mov Cap-2 Maneuver	82	108	-	85	115	-	-	-	-	-	-	-
Stage 1	367	372	-	435	446	-	-	-	-	-	-	-
Stage 2	389	425	-	335	371	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	36.9		50.3		0		0.4	
HCM LOS	E		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	858	-	-	128	142	876	-
HCM Lane V/C Ratio	0.004	-	-	0.119	0.459	0.041	-
HCM Control Delay (s)	9.2	-	-	36.9	50.3	9.3	-
HCM Lane LOS	A	-	-	E	F	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	2.1	0.1	-

Intersection												
Int Delay, s/veh	8.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	4	10	5	69	11	50	7	619	40	25	491	1
Future Vol, veh/h	4	10	5	69	11	50	7	619	40	25	491	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	11	5	75	12	54	8	673	43	27	534	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1333	1321	535	1308	1300	695	535	0	0	716	0	0
Stage 1	589	589	-	711	711	-	-	-	-	-	-	-
Stage 2	744	732	-	597	589	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	131	157	545	136	161	442	1033	-	-	885	-	-
Stage 1	494	495	-	424	436	-	-	-	-	-	-	-
Stage 2	407	427	-	490	495	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	105	151	545	124	155	442	1033	-	-	885	-	-
Mov Cap-2 Maneuver	105	151	-	124	155	-	-	-	-	-	-	-
Stage 1	490	480	-	421	433	-	-	-	-	-	-	-
Stage 2	344	424	-	460	480	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	29.6		77.8		0.1		0.4	
HCM LOS	D		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1033	-	-	167	176	885	-
HCM Lane V/C Ratio	0.007	-	-	0.124	0.803	0.031	-
HCM Control Delay (s)	8.5	-	-	29.6	77.8	9.2	-
HCM Lane LOS	A	-	-	D	F	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	5.4	0.1	-

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	43	102	9	55	95	20	10	202	66	24	158	20
Future Vol, veh/h	43	102	9	55	95	20	10	202	66	24	158	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	111	10	60	103	22	11	220	72	26	172	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.8	10.9	12.1	11
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	28%	32%	12%
Vol Thru, %	73%	66%	56%	78%
Vol Right, %	24%	6%	12%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	278	154	170	202
LT Vol	10	43	55	24
Through Vol	202	102	95	158
RT Vol	66	9	20	20
Lane Flow Rate	302	167	185	220
Geometry Grp	1	1	1	1
Degree of Util (X)	0.433	0.264	0.288	0.328
Departure Headway (Hd)	5.161	5.675	5.617	5.379
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	695	631	637	667
Service Time	3.203	3.724	3.666	3.424
HCM Lane V/C Ratio	0.435	0.265	0.29	0.33
HCM Control Delay	12.1	10.8	10.9	11
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.2	1.1	1.2	1.4

Intersection	
Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	111	6	93	131	29	16	151	84	25	206	37
Future Vol, veh/h	17	111	6	93	131	29	16	151	84	25	206	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	121	7	101	142	32	17	164	91	27	224	40
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.1	13.4	12.5	13.2
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	13%	37%	9%
Vol Thru, %	60%	83%	52%	77%
Vol Right, %	33%	4%	11%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	251	134	253	268
LT Vol	16	17	93	25
Through Vol	151	111	131	206
RT Vol	84	6	29	37
Lane Flow Rate	273	146	275	291
Geometry Grp	1	1	1	1
Degree of Util (X)	0.417	0.244	0.442	0.452
Departure Headway (Hd)	5.501	6.037	5.782	5.585
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	649	590	619	641
Service Time	3.572	4.122	3.852	3.655
HCM Lane V/C Ratio	0.421	0.247	0.444	0.454
HCM Control Delay	12.5	11.1	13.4	13.2
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.1	1	2.3	2.3

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	112	12	14	232	0	14	0	8	1	1	1
Future Vol, veh/h	2	112	12	14	232	0	14	0	8	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	122	13	15	252	0	15	0	9	1	1	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.9	7.9	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	64%	2%	6%	33%
Vol Thru, %	0%	89%	94%	33%
Vol Right, %	36%	10%	0%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	126	246	3
LT Vol	14	2	14	1
Through Vol	0	112	232	1
RT Vol	8	12	0	1
Lane Flow Rate	24	137	267	3
Geometry Grp	1	1	1	1
Degree of Util (X)	0.031	0.157	0.304	0.004
Departure Headway (Hd)	4.718	4.128	4.095	4.703
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	763	857	872	765
Service Time	2.718	2.206	2.147	2.704
HCM Lane V/C Ratio	0.031	0.16	0.306	0.004
HCM Control Delay	7.9	8	8.9	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.6	1.3	0

Intersection

Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	311	30	23	214	7	17	2	14	4	2	3
Future Vol, veh/h	2	311	30	23	214	7	17	2	14	4	2	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	338	33	25	233	8	18	2	15	4	2	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.7	9.6	8.5	8.4
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	1%	9%	44%
Vol Thru, %	6%	91%	88%	22%
Vol Right, %	42%	9%	3%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	343	244	9
LT Vol	17	2	23	4
Through Vol	2	311	214	2
RT Vol	14	30	7	3
Lane Flow Rate	36	373	265	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.052	0.443	0.326	0.014
Departure Headway (Hd)	5.17	4.274	4.425	5.256
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	692	843	814	680
Service Time	3.207	2.292	2.446	3.297
HCM Lane V/C Ratio	0.052	0.442	0.326	0.015
HCM Control Delay	8.5	10.7	9.6	8.4
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.2	2.3	1.4	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	35	100	9	159	199	86	40	445	76	48	445	39
Future Volume (veh/h)	35	100	9	159	199	86	40	445	76	48	445	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	105	9	167	209	91	42	468	80	51	468	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	160	14	304	319	271	429	1040	177	417	1153	101
Arrive On Green	0.09	0.09	0.09	0.17	0.17	0.17	0.04	0.34	0.34	0.05	0.35	0.35
Sat Flow, veh/h	1781	1699	146	1781	1870	1585	1781	3038	516	1781	3307	289
Grp Volume(v), veh/h	37	0	114	167	209	91	42	273	275	51	251	258
Grp Sat Flow(s),veh/h/ln	1781	0	1844	1781	1870	1585	1781	1777	1777	1781	1777	1818
Q Serve(g_s), s	1.0	0.0	3.1	4.5	5.5	2.7	0.8	6.3	6.3	0.9	5.6	5.7
Cycle Q Clear(g_c), s	1.0	0.0	3.1	4.5	5.5	2.7	0.8	6.3	6.3	0.9	5.6	5.7
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.29	1.00		0.16
Lane Grp Cap(c), veh/h	168	0	174	304	319	271	429	608	609	417	620	634
V/C Ratio(X)	0.22	0.00	0.65	0.55	0.65	0.34	0.10	0.45	0.45	0.12	0.40	0.41
Avail Cap(c_a), veh/h	610	0	631	610	640	543	521	608	609	497	620	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	23.0	19.9	20.3	19.2	10.4	13.4	13.4	10.4	13.0	13.0
Incr Delay (d2), s/veh	0.7	0.0	4.1	1.5	2.3	0.7	0.1	2.4	2.4	0.1	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.4	1.8	2.4	0.9	0.3	2.4	2.4	0.3	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	0.0	27.1	21.5	22.6	19.9	10.5	15.8	15.9	10.5	14.9	14.9
LnGrp LOS	C	A	C	C	C	B	B	B	B	B	B	B
Approach Vol, veh/h		151			467			590			560	
Approach Delay, s/veh		26.0			21.7			15.5			14.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	22.5		9.5	6.8	22.8		13.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.9	8.3		5.1	2.8	7.7		7.5				
Green Ext Time (p_c), s	0.0	2.2		0.4	0.0	2.0		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				17.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

16: Claremont Blvd & 6st St/W Arrow Rt

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↕	↗	↖	↕	↖
Traffic Volume (veh/h)	51	199	23	114	131	43	24	410	190	106	404	57
Future Volume (veh/h)	51	199	23	114	131	43	24	410	190	106	404	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	209	24	120	138	45	25	432	200	112	425	60
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	302	279	32	216	227	192	417	753	345	388	1134	159
Arrive On Green	0.17	0.17	0.17	0.12	0.12	0.12	0.03	0.32	0.32	0.07	0.36	0.36
Sat Flow, veh/h	1781	1647	189	1781	1870	1585	1781	2367	1085	1781	3129	439
Grp Volume(v), veh/h	54	0	233	120	138	45	25	323	309	112	240	245
Grp Sat Flow(s),veh/h/ln	1781	0	1836	1781	1870	1585	1781	1777	1675	1781	1777	1791
Q Serve(g_s), s	1.5	0.0	6.8	3.6	4.0	1.5	0.5	8.6	8.7	2.3	5.6	5.7
Cycle Q Clear(g_c), s	1.5	0.0	6.8	3.6	4.0	1.5	0.5	8.6	8.7	2.3	5.6	5.7
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.65	1.00		0.25
Lane Grp Cap(c), veh/h	302	0	311	216	227	192	417	565	533	388	644	649
V/C Ratio(X)	0.18	0.00	0.75	0.56	0.61	0.23	0.06	0.57	0.58	0.29	0.37	0.38
Avail Cap(c_a), veh/h	567	0	584	567	595	504	523	565	533	415	644	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.1	0.0	22.4	23.4	23.6	22.5	12.3	16.1	16.1	12.0	13.3	13.3
Incr Delay (d2), s/veh	0.3	0.0	3.6	2.2	2.6	0.6	0.1	4.2	4.5	0.4	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.8	1.5	1.8	0.5	0.2	3.6	3.5	0.8	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.4	0.0	26.0	25.7	26.2	23.1	12.4	20.3	20.7	12.4	14.9	15.0
LnGrp LOS	C	A	C	C	C	C	B	C	C	B	B	B
Approach Vol, veh/h		287			303			657			597	
Approach Delay, s/veh		24.9			25.5			20.2			14.5	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	22.5		14.1	6.1	25.0		11.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	4.3	10.7		8.8	2.5	7.7		6.0				
Green Ext Time (p_c), s	0.0	2.2		0.9	0.0	1.9		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				19.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗	↗	↗↘	↗↘↙		↗	↗↘↙	
Traffic Volume (veh/h)	49	168	19	62	257	73	41	431	47	32	420	60
Future Volume (veh/h)	49	168	19	62	257	73	41	431	47	32	420	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	177	20	65	271	77	43	454	49	34	442	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	608	68	105	368	312	155	1692	180	67	1602	224
Arrive On Green	0.05	0.19	0.19	0.06	0.20	0.20	0.04	0.36	0.36	0.04	0.35	0.35
Sat Flow, veh/h	1781	3223	360	1781	1870	1585	3456	4686	498	1781	4528	633
Grp Volume(v), veh/h	52	97	100	65	271	77	43	328	175	34	330	175
Grp Sat Flow(s),veh/h/ln	1781	1777	1806	1781	1870	1585	1728	1702	1781	1781	1702	1756
Q Serve(g_s), s	1.5	2.4	2.4	1.8	6.9	2.1	0.6	3.5	3.5	1.0	3.5	3.6
Cycle Q Clear(g_c), s	1.5	2.4	2.4	1.8	6.9	2.1	0.6	3.5	3.5	1.0	3.5	3.6
Prop In Lane	1.00		0.20	1.00		1.00	1.00		0.28	1.00		0.36
Lane Grp Cap(c), veh/h	91	335	341	105	368	312	155	1229	643	67	1204	621
V/C Ratio(X)	0.57	0.29	0.29	0.62	0.74	0.25	0.28	0.27	0.27	0.51	0.27	0.28
Avail Cap(c_a), veh/h	175	628	639	175	662	561	340	1229	643	175	1204	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	17.7	17.7	23.4	19.2	17.3	23.5	11.5	11.5	24.0	11.8	11.8
Incr Delay (d2), s/veh	5.5	0.5	0.5	5.8	2.9	0.4	1.0	0.5	1.0	5.9	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.9	0.9	0.8	2.8	0.7	0.2	1.1	1.3	0.5	1.1	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	18.2	18.2	29.2	22.1	17.7	24.5	12.0	12.6	29.9	12.3	12.9
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		249			413			546			539	
Approach Delay, s/veh		20.5			22.4			13.2			13.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	22.9	7.5	14.1	6.8	22.5	7.1	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.0	5.5	3.8	4.4	2.6	5.6	3.5	8.9				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.7	0.0	2.3	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			16.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

03/19/2024

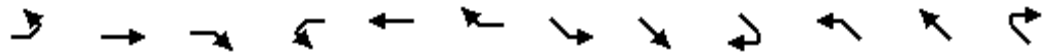


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↶↷		↶	↶	↶	↶↷	↶↷↷		↶	↶↷↷	
Traffic Volume (veh/h)	67	323	46	73	138	43	35	428	75	53	587	60
Future Volume (veh/h)	67	323	46	73	138	43	35	428	75	53	587	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	340	48	77	145	45	37	451	79	56	618	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	534	75	116	325	275	138	1558	267	96	1738	176
Arrive On Green	0.06	0.17	0.17	0.07	0.17	0.17	0.04	0.36	0.36	0.05	0.37	0.37
Sat Flow, veh/h	1781	3130	438	1781	1870	1585	3456	4388	751	1781	4713	476
Grp Volume(v), veh/h	71	192	196	77	145	45	37	348	182	56	445	236
Grp Sat Flow(s),veh/h/ln	1781	1777	1792	1781	1870	1585	1728	1702	1735	1781	1702	1785
Q Serve(g_s), s	2.0	5.1	5.2	2.1	3.5	1.2	0.5	3.7	3.8	1.6	4.8	4.9
Cycle Q Clear(g_c), s	2.0	5.1	5.2	2.1	3.5	1.2	0.5	3.7	3.8	1.6	4.8	4.9
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.43	1.00		0.27
Lane Grp Cap(c), veh/h	111	303	306	116	325	275	138	1209	616	96	1256	658
V/C Ratio(X)	0.64	0.63	0.64	0.66	0.45	0.16	0.27	0.29	0.30	0.58	0.35	0.36
Avail Cap(c_a), veh/h	176	631	636	176	664	563	341	1209	616	176	1256	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	19.5	19.6	23.1	18.8	17.8	23.6	11.7	11.8	23.4	11.6	11.6
Incr Delay (d2), s/veh	6.0	2.2	2.2	6.3	1.0	0.3	1.0	0.6	1.2	5.5	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.9	2.0	1.0	1.4	0.4	0.2	1.2	1.3	0.7	1.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.2	21.7	21.8	29.4	19.7	18.1	24.6	12.3	13.0	29.0	12.4	13.2
LnGrp LOS	C	C	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		459			267			567			737	
Approach Delay, s/veh		22.9			22.2			13.4			13.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	22.5	7.8	13.2	6.5	23.2	7.7	13.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.6	5.8	4.1	7.2	2.5	6.9	4.0	5.5				
Green Ext Time (p_c), s	0.0	2.4	0.0	1.5	0.0	3.0	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay				16.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

18: Harrison Ave

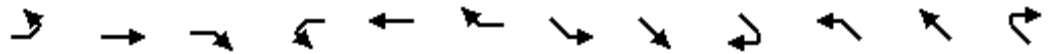
03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	72	56	50	27	52	21	21	605	52	35	542	24
Future Volume (veh/h)	72	56	50	27	52	21	21	605	52	35	542	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	61	54	29	57	23	23	658	57	38	589	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	49	476	80	120	476	47	815	691	70	797	35
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.03	0.44	0.44	0.04	0.45	0.45
Sat Flow, veh/h	0	162	1585	0	398	1585	1781	1870	1585	1781	1778	78
Grp Volume(v), veh/h	139	0	54	86	0	23	23	658	57	38	0	615
Grp Sat Flow(s),veh/h/ln	162	0	1585	398	0	1585	1781	1870	1585	1781	0	1856
Q Serve(g_s), s	0.0	0.0	1.5	0.0	0.0	0.6	0.8	18.4	1.3	1.3	0.0	16.4
Cycle Q Clear(g_c), s	18.0	0.0	1.5	18.0	0.0	0.6	0.8	18.4	1.3	1.3	0.0	16.4
Prop In Lane	0.56		1.00	0.34		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	142	0	476	200	0	476	47	815	691	70	0	832
V/C Ratio(X)	0.98	0.00	0.11	0.43	0.00	0.05	0.49	0.81	0.08	0.55	0.00	0.74
Avail Cap(c_a), veh/h	142	0	476	200	0	476	148	815	691	148	0	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	15.2	17.1	0.0	14.9	28.8	14.7	9.9	28.3	0.0	13.6
Incr Delay (d2), s/veh	67.9	0.0	0.1	1.5	0.0	0.0	7.6	8.4	0.2	6.5	0.0	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.5	0.9	0.0	0.2	0.4	8.7	0.4	0.6	0.0	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.9	0.0	15.3	18.5	0.0	15.0	36.4	23.1	10.1	34.8	0.0	19.5
LnGrp LOS	F	A	B	B	A	B	D	C	B	C	A	B
Approach Vol, veh/h		193			109			738				653
Approach Delay, s/veh		70.5			17.8			22.6				20.4
Approach LOS		E			B			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	31.4		22.5	6.8	30.7		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.8	18.4		20.0	3.3	20.4		20.0				
Green Ext Time (p_c), s	0.0	1.9		0.0	0.0	1.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	26	32	43	52	31	59	11	490	30	20	580	28
Future Volume (veh/h)	26	32	43	52	31	59	11	490	30	20	580	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	35	47	57	34	64	12	533	33	22	630	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	78	476	98	37	476	27	841	712	46	814	39
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.02	0.45	0.45	0.03	0.46	0.46
Sat Flow, veh/h	0	258	1585	0	124	1585	1781	1870	1585	1781	1771	84
Grp Volume(v), veh/h	63	0	47	91	0	64	12	533	33	22	0	660
Grp Sat Flow(s),veh/h/ln	258	0	1585	124	0	1585	1781	1870	1585	1781	0	1855
Q Serve(g_s), s	0.0	0.0	1.3	0.0	0.0	1.8	0.4	13.2	0.7	0.7	0.0	17.9
Cycle Q Clear(g_c), s	18.0	0.0	1.3	18.0	0.0	1.8	0.4	13.2	0.7	0.7	0.0	17.9
Prop In Lane	0.44		1.00	0.63		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	164	0	476	135	0	476	27	841	712	46	0	853
V/C Ratio(X)	0.38	0.00	0.10	0.68	0.00	0.13	0.45	0.63	0.05	0.48	0.00	0.77
Avail Cap(c_a), veh/h	164	0	476	135	0	476	148	841	712	148	0	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	0.0	15.1	22.9	0.0	15.3	29.3	12.7	9.3	28.8	0.0	13.6
Incr Delay (d2), s/veh	1.5	0.0	0.1	12.5	0.0	0.1	11.1	3.6	0.1	7.7	0.0	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.4	1.7	0.0	0.6	0.2	5.7	0.2	0.4	0.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	0.0	15.2	35.4	0.0	15.4	40.4	16.3	9.4	36.6	0.0	20.3
LnGrp LOS	B	A	B	D	A	B	D	B	A	D	A	C
Approach Vol, veh/h		110			155			578				682
Approach Delay, s/veh		17.2			27.2			16.5				20.9
Approach LOS		B			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	32.1		22.5	6.0	31.5		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.4	19.9		20.0	2.7	15.2		20.0				
Green Ext Time (p_c), s	0.0	1.6		0.0	0.0	2.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			19.6									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

19: 1st St & Indian Hill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	17	38	77	36	47	60	611	152	34	555	27
Future Volume (veh/h)	7	17	38	77	36	47	60	611	152	34	555	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	18	41	84	39	51	65	664	165	37	603	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	204	173	255	80	105	544	1174	995	468	1081	52
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.06	0.63	0.63	0.04	0.61	0.61
Sat Flow, veh/h	1307	1870	1585	1344	735	962	1781	1870	1585	1781	1770	85
Grp Volume(v), veh/h	8	18	41	84	0	90	65	664	165	37	0	632
Grp Sat Flow(s),veh/h/ln	1307	1870	1585	1344	0	1697	1781	1870	1585	1781	0	1855
Q Serve(g_s), s	0.3	0.5	1.4	3.6	0.0	3.0	0.8	12.3	2.6	0.4	0.0	12.1
Cycle Q Clear(g_c), s	3.3	0.5	1.4	4.1	0.0	3.0	0.8	12.3	2.6	0.4	0.0	12.1
Prop In Lane	1.00		1.00	1.00		0.57	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	197	204	173	255	0	185	544	1174	995	468	0	1133
V/C Ratio(X)	0.04	0.09	0.24	0.33	0.00	0.49	0.12	0.57	0.17	0.08	0.00	0.56
Avail Cap(c_a), veh/h	447	561	476	512	0	509	597	1174	995	548	0	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.74	0.74	0.74	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.7	24.0	24.5	25.9	0.0	25.2	4.8	6.4	4.6	4.9	0.0	6.9
Incr Delay (d2), s/veh	0.1	0.2	0.7	0.7	0.0	2.0	0.1	1.5	0.3	0.1	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.5	1.2	0.0	1.3	0.2	3.9	0.7	0.1	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	24.2	25.1	26.7	0.0	27.1	4.9	7.9	4.9	5.0	0.0	8.9
LnGrp LOS	C	C	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		67			174			894			669	
Approach Delay, s/veh		25.1			26.9			7.1			8.7	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	42.2		11.0	7.8	41.2		11.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	2.4	14.3		5.3	2.8	14.1		6.1				
Green Ext Time (p_c), s	0.0	3.5		0.1	0.0	3.1		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				10.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	48	92	125	57	93	107	503	128	38	505	67
Future Volume (veh/h)	29	48	92	125	57	93	107	503	128	38	505	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	52	100	136	62	101	116	547	139	41	549	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	331	280	309	113	184	474	1041	883	476	852	113
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.07	0.56	0.56	0.04	0.53	0.53
Sat Flow, veh/h	1223	1870	1585	1235	640	1043	1781	1870	1585	1781	1617	215
Grp Volume(v), veh/h	32	52	100	136	0	163	116	547	139	41	0	622
Grp Sat Flow(s),veh/h/ln	1223	1870	1585	1235	0	1683	1781	1870	1585	1781	0	1832
Q Serve(g_s), s	1.5	1.4	3.3	6.3	0.0	5.3	1.7	11.0	2.6	0.6	0.0	14.6
Cycle Q Clear(g_c), s	6.8	1.4	3.3	7.7	0.0	5.3	1.7	11.0	2.6	0.6	0.0	14.6
Prop In Lane	1.00		1.00	1.00		0.62	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	228	331	280	309	0	298	474	1041	883	476	0	965
V/C Ratio(X)	0.14	0.16	0.36	0.44	0.00	0.55	0.24	0.53	0.16	0.09	0.00	0.64
Avail Cap(c_a), veh/h	379	561	476	461	0	505	499	1041	883	551	0	965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.6	20.9	21.7	24.2	0.0	22.5	7.3	8.3	6.5	6.5	0.0	10.2
Incr Delay (d2), s/veh	0.3	0.2	0.8	1.0	0.0	1.6	0.2	1.5	0.3	0.1	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.6	1.2	1.8	0.0	2.1	0.5	3.9	0.8	0.2	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	21.1	22.5	25.1	0.0	24.1	7.5	9.8	6.8	6.6	0.0	13.5
LnGrp LOS	C	C	C	C	A	C	A	A	A	A	A	B
Approach Vol, veh/h		184			299			802				663
Approach Delay, s/veh		22.7			24.6			9.0				13.1
Approach LOS		C			C			A				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	37.9		15.1	8.8	36.1		15.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	2.6	13.0		8.8	3.7	16.6		9.7				
Green Ext Time (p_c), s	0.0	3.0		0.4	0.0	2.4		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				14.0								
HCM 6th LOS				B								

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↘	↙	↑	↘		↕			↕	
Traffic Vol, veh/h	27	74	30	23	92	41	30	236	28	36	163	16
Future Vol, veh/h	27	74	30	23	92	41	30	236	28	36	163	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	80	33	25	100	45	33	257	30	39	177	17
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10	10.1	14.4	12.3
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	10%	100%	0%	0%	100%	0%	0%	17%
Vol Thru, %	80%	0%	100%	0%	0%	100%	0%	76%
Vol Right, %	10%	0%	0%	100%	0%	0%	100%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	294	27	74	30	23	92	41	215
LT Vol	30	27	0	0	23	0	0	36
Through Vol	236	0	74	0	0	92	0	163
RT Vol	28	0	0	30	0	0	41	16
Lane Flow Rate	320	29	80	33	25	100	45	234
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.511	0.057	0.145	0.052	0.048	0.179	0.071	0.384
Departure Headway (Hd)	5.751	7.009	6.496	5.778	6.961	6.449	5.731	5.912
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	626	510	551	618	514	555	623	608
Service Time	3.485	4.762	4.249	3.531	4.712	4.199	3.481	3.65
HCM Lane V/C Ratio	0.511	0.057	0.145	0.053	0.049	0.18	0.072	0.385
HCM Control Delay	14.4	10.2	10.4	8.9	10.1	10.6	8.9	12.3
HCM Lane LOS	B	B	B	A	B	B	A	B
HCM 95th-tile Q	2.9	0.2	0.5	0.2	0.2	0.6	0.2	1.8

Intersection	
Intersection Delay, s/veh	16.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	35	116	68	42	130	42	42	131	50	42	264	52
Future Vol, veh/h	35	116	68	42	130	42	42	131	50	42	264	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	126	74	46	141	46	46	142	54	46	287	57
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	11.5	11.9	14.8	22.6
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	19%	100%	0%	0%	100%	0%	0%	12%
Vol Thru, %	59%	0%	100%	0%	0%	100%	0%	74%
Vol Right, %	22%	0%	0%	100%	0%	0%	100%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	35	116	68	42	130	42	358
LT Vol	42	35	0	0	42	0	0	42
Through Vol	131	0	116	0	0	130	0	264
RT Vol	50	0	0	68	0	0	42	52
Lane Flow Rate	242	38	126	74	46	141	46	389
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.449	0.081	0.251	0.133	0.098	0.282	0.082	0.697
Departure Headway (Hd)	6.671	7.697	7.18	6.456	7.697	7.18	6.456	6.449
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	541	465	499	554	466	500	554	564
Service Time	4.415	5.447	4.93	4.205	5.446	4.928	4.204	4.149
HCM Lane V/C Ratio	0.447	0.082	0.253	0.134	0.099	0.282	0.083	0.69
HCM Control Delay	14.8	11.1	12.3	10.2	11.3	12.7	9.8	22.6
HCM Lane LOS	B	B	B	B	B	B	A	C
HCM 95th-tile Q	2.3	0.3	1	0.5	0.3	1.1	0.3	5.5

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	0	44	8	0	1	115	504	6	1	480	113
Future Volume (veh/h)	44	0	44	8	0	1	115	504	6	1	480	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	0	48	9	0	1	125	548	7	1	522	123
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	113	96	22	0	20	643	2638	34	689	2609	1164
Arrive On Green	0.06	0.00	0.06	0.01	0.00	0.01	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	785	3593	46	854	3554	1585
Grp Volume(v), veh/h	48	0	48	9	0	1	125	271	284	1	522	123
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	785	1777	1862	854	1777	1585
Q Serve(g_s), s	1.8	0.0	2.1	0.4	0.0	0.0	4.1	3.3	3.4	0.0	3.2	1.6
Cycle Q Clear(g_c), s	1.8	0.0	2.1	0.4	0.0	0.0	7.3	3.3	3.4	3.4	3.2	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	108	113	96	22	0	20	643	1304	1367	689	2609	1164
V/C Ratio(X)	0.45	0.00	0.50	0.40	0.00	0.05	0.19	0.21	0.21	0.00	0.20	0.11
Avail Cap(c_a), veh/h	458	481	408	458	0	408	643	1304	1367	689	2609	1164
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	31.8	0.0	31.9	34.3	0.0	34.1	4.0	2.9	2.9	3.4	2.9	2.7
Incr Delay (d2), s/veh	2.9	0.0	4.0	11.1	0.0	1.0	0.7	0.4	0.3	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.9	0.2	0.0	0.0	0.5	0.7	0.8	0.0	0.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	0.0	35.9	45.4	0.0	35.2	4.7	3.3	3.3	3.5	3.1	2.9
LnGrp LOS	C	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		96			10			680			646	
Approach Delay, s/veh		35.3			44.4			3.5			3.0	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.9		8.7		55.9		5.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		18.0		20.5		18.0				
Max Q Clear Time (g_c+I1), s		9.3		4.1		5.4		2.4				
Green Ext Time (p_c), s		3.0		0.2		3.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			5.7									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	3	116	4	0	1	67	449	7	2	428	97
Future Volume (veh/h)	147	3	116	4	0	1	67	449	7	2	428	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	160	3	126	4	0	1	73	488	8	2	465	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	221	232	196	12	0	10	631	2421	40	667	2405	1073
Arrive On Green	0.12	0.12	0.12	0.01	0.00	0.01	0.68	0.68	0.68	0.68	0.68	0.68
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	842	3578	59	901	3554	1585
Grp Volume(v), veh/h	160	3	126	4	0	1	73	242	254	2	465	105
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	842	1777	1860	901	1777	1585
Q Serve(g_s), s	6.1	0.1	5.3	0.2	0.0	0.0	2.5	3.6	3.6	0.1	3.4	1.6
Cycle Q Clear(g_c), s	6.1	0.1	5.3	0.2	0.0	0.0	5.9	3.6	3.6	3.6	3.4	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	221	232	196	12	0	10	631	1202	1258	667	2405	1073
V/C Ratio(X)	0.73	0.01	0.64	0.34	0.00	0.10	0.12	0.20	0.20	0.00	0.19	0.10
Avail Cap(c_a), veh/h	471	494	419	458	0	408	631	1202	1258	667	2405	1073
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	29.5	26.9	29.2	34.6	0.0	34.6	5.3	4.2	4.2	4.9	4.2	3.9
Incr Delay (d2), s/veh	4.5	0.0	3.5	16.1	0.0	3.9	0.4	0.4	0.4	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	2.1	0.1	0.0	0.0	0.4	1.0	1.0	0.0	0.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	26.9	32.7	50.7	0.0	38.4	5.7	4.6	4.6	4.9	4.4	4.1
LnGrp LOS	C	C	C	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		289			5			569			572	
Approach Delay, s/veh		33.3			48.2			4.7			4.3	
Approach LOS		C			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		51.9		13.2		51.9		5.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.5		20.0		18.0				
Max Q Clear Time (g_c+I1), s		7.9		8.1		5.6		2.2				
Green Ext Time (p_c), s		2.5		0.7		2.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				10.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

22: Arrow Hwy & Indian Hill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	84	407	149	175	735	93	152	626	175	72	513	45
Future Volume (veh/h)	84	407	149	175	735	93	152	626	175	72	513	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	442	162	190	799	101	165	680	190	78	558	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	723	323	229	948	423	203	1320	589	100	1038	91
Arrive On Green	0.07	0.20	0.20	0.13	0.27	0.27	0.11	0.37	0.37	0.06	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3305	290
Grp Volume(v), veh/h	91	442	162	190	799	101	165	680	190	78	299	308
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1818
Q Serve(g_s), s	3.8	8.5	6.8	7.8	16.0	3.7	6.8	11.2	6.4	3.2	10.4	10.5
Cycle Q Clear(g_c), s	3.8	8.5	6.8	7.8	16.0	3.7	6.8	11.2	6.4	3.2	10.4	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	117	723	323	229	948	423	203	1320	589	100	558	571
V/C Ratio(X)	0.78	0.61	0.50	0.83	0.84	0.24	0.81	0.52	0.32	0.78	0.54	0.54
Avail Cap(c_a), veh/h	157	853	380	249	1038	463	226	1320	589	143	558	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	34.5	27.2	26.5	31.9	26.0	21.5	32.5	18.3	16.8	34.9	21.2	21.2
Incr Delay (d2), s/veh	16.0	1.0	1.2	13.0	4.0	0.2	18.4	1.4	1.4	13.9	3.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.6	2.6	4.1	6.9	1.4	3.9	4.6	2.4	1.7	4.5	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	28.1	27.7	44.9	30.0	21.7	50.9	19.8	18.3	48.8	24.4	24.4
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	C
Approach Vol, veh/h		695			1090			1035			685	
Approach Delay, s/veh		31.0			31.8			24.5			27.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	32.4	14.2	19.8	13.0	28.0	9.4	24.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.0	22.5	10.5	18.0	9.5	19.0	6.6	21.9				
Max Q Clear Time (g_c+I1), s	5.2	13.2	9.8	10.5	8.8	12.5	5.8	18.0				
Green Ext Time (p_c), s	0.0	3.6	0.0	2.1	0.0	1.9	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			28.6									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 22: Arrow Hwy & Indian Hill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	103	903	167	206	524	58	149	517	183	130	595	59
Future Volume (veh/h)	103	903	167	206	524	58	149	517	183	130	595	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	982	182	224	570	63	162	562	199	141	647	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	1044	466	247	1251	558	189	884	394	167	772	76
Arrive On Green	0.08	0.29	0.29	0.14	0.35	0.35	0.11	0.25	0.25	0.09	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3266	323
Grp Volume(v), veh/h	112	982	182	224	570	63	162	562	199	141	352	359
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1812
Q Serve(g_s), s	4.9	21.6	7.3	9.9	9.9	2.1	7.2	11.3	8.6	6.2	15.1	15.1
Cycle Q Clear(g_c), s	4.9	21.6	7.3	9.9	9.9	2.1	7.2	11.3	8.6	6.2	15.1	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	143	1044	466	247	1251	558	189	884	394	167	420	428
V/C Ratio(X)	0.78	0.94	0.39	0.91	0.46	0.11	0.86	0.64	0.50	0.84	0.84	0.84
Avail Cap(c_a), veh/h	236	1044	466	247	1251	558	189	884	394	167	420	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	36.1	27.6	22.5	33.9	20.0	17.5	35.1	26.8	25.8	35.7	29.1	29.1
Incr Delay (d2), s/veh	8.9	15.6	0.5	30.4	0.2	0.1	29.9	3.5	4.6	25.1	14.2	14.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	11.0	2.7	6.2	4.0	0.8	4.6	5.0	3.6	3.8	7.8	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	43.2	23.1	64.3	20.2	17.6	65.1	30.3	30.4	60.7	43.3	43.3
LnGrp LOS	D	D	C	E	C	B	E	C	C	E	D	D
Approach Vol, veh/h		1276			857			923			852	
Approach Delay, s/veh		40.5			31.6			36.4			46.2	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	24.4	15.6	28.0	13.0	23.4	10.9	32.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	19.9	11.1	23.5	8.5	18.9	10.6	24.0				
Max Q Clear Time (g_c+I1), s	8.2	13.3	11.9	23.6	9.2	17.1	6.9	11.9				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	0.0	0.8	0.1	3.2				
Intersection Summary												
HCM 6th Ctrl Delay			38.8									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	536	34	40	898	75	39	136	16	69	99	68
Future Volume (veh/h)	56	536	34	40	898	75	39	136	16	69	99	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	583	37	43	976	82	42	148	17	75	108	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	1411	89	381	1379	116	175	551	57	680	756	641
Arrive On Green	0.42	0.42	0.42	0.42	0.42	0.42	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	533	3393	215	804	3318	279	219	1363	142	1221	1870	1585
Grp Volume(v), veh/h	61	305	315	43	523	535	207	0	0	75	108	74
Grp Sat Flow(s),veh/h/ln	533	1777	1832	804	1777	1820	1723	0	0	1221	1870	1585
Q Serve(g_s), s	5.3	6.1	6.1	2.0	12.2	12.2	0.0	0.0	0.0	0.0	1.8	1.5
Cycle Q Clear(g_c), s	17.5	6.1	6.1	8.1	12.2	12.2	3.8	0.0	0.0	1.3	1.8	1.5
Prop In Lane	1.00		0.12	1.00		0.15	0.20		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	236	739	761	381	739	757	783	0	0	680	756	641
V/C Ratio(X)	0.26	0.41	0.41	0.11	0.71	0.71	0.26	0.00	0.00	0.11	0.14	0.12
Avail Cap(c_a), veh/h	254	800	824	408	800	819	783	0	0	680	756	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.61	0.61	0.61	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	10.3	10.3	13.2	12.1	12.1	10.0	0.0	0.0	9.3	9.4	9.3
Incr Delay (d2), s/veh	0.5	0.3	0.3	0.1	1.6	1.6	0.8	0.0	0.0	0.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.0	2.1	0.3	4.2	4.3	1.5	0.0	0.0	0.5	0.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.8	10.6	10.6	13.2	13.7	13.7	10.8	0.0	0.0	9.6	9.8	9.7
LnGrp LOS	B	B	B	B	B	B	B	A	A	A	A	A
Approach Vol, veh/h		681			1101			207			257	
Approach Delay, s/veh		11.4			13.7			10.8			9.7	
Approach LOS		B			B			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.7		25.3		24.7		25.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		5.8		19.5		3.8		14.2				
Green Ext Time (p_c), s		0.9		1.3		0.9		4.4				
Intersection Summary												
HCM 6th Ctrl Delay				12.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘			↕		↗	↗	↗
Traffic Volume (veh/h)	69	1035	31	24	639	47	33	54	49	119	132	115
Future Volume (veh/h)	69	1035	31	24	639	47	33	54	49	119	132	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	1125	34	26	695	51	36	59	53	129	143	125
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	1427	43	205	1361	100	203	319	242	702	776	657
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	715	3522	106	485	3357	246	275	770	583	1281	1870	1585
Grp Volume(v), veh/h	75	568	591	26	368	378	148	0	0	129	143	125
Grp Sat Flow(s),veh/h/ln	715	1777	1851	485	1777	1826	1628	0	0	1281	1870	1585
Q Serve(g_s), s	4.4	14.0	14.0	2.5	7.8	7.8	0.0	0.0	0.0	0.0	2.4	2.5
Cycle Q Clear(g_c), s	12.2	14.0	14.0	16.4	7.8	7.8	2.7	0.0	0.0	2.3	2.4	2.5
Prop In Lane	1.00		0.06	1.00		0.13	0.24		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	323	720	750	205	720	740	764	0	0	702	776	657
V/C Ratio(X)	0.23	0.79	0.79	0.13	0.51	0.51	0.19	0.00	0.00	0.18	0.18	0.19
Avail Cap(c_a), veh/h	355	800	833	227	800	822	764	0	0	702	776	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	0.85	0.85	0.85	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	13.0	13.0	20.2	11.1	11.2	9.4	0.0	0.0	9.2	9.3	9.3
Incr Delay (d2), s/veh	0.1	2.0	2.0	0.2	0.5	0.5	0.6	0.0	0.0	0.6	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.9	5.1	0.3	2.6	2.7	1.0	0.0	0.0	0.8	0.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.9	15.0	15.0	20.4	11.6	11.6	9.9	0.0	0.0	9.8	9.8	9.9
LnGrp LOS	B	B	B	C	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1234			772			148			397	
Approach Delay, s/veh		15.0			11.9			9.9			9.8	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.2		24.8		25.2		24.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		4.7		16.0		4.5		18.4				
Green Ext Time (p_c), s		0.6		4.1		1.4		1.8				
Intersection Summary												
HCM 6th Ctrl Delay				13.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↗↘		↗	↗	↗
Traffic Volume (veh/h)	157	399	36	38	667	88	96	366	51	55	230	225
Future Volume (veh/h)	157	399	36	38	667	88	96	366	51	55	230	225
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	434	39	41	725	96	104	398	55	60	250	245
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	1109	99	70	812	107	133	999	137	88	548	464
Arrive On Green	0.12	0.34	0.34	0.04	0.26	0.26	0.07	0.32	0.32	0.05	0.29	0.29
Sat Flow, veh/h	1781	3299	295	1781	3155	417	1781	3139	431	1781	1870	1585
Grp Volume(v), veh/h	171	233	240	41	408	413	104	224	229	60	250	245
Grp Sat Flow(s),veh/h/ln	1781	1777	1817	1781	1777	1795	1781	1777	1793	1781	1870	1585
Q Serve(g_s), s	6.6	7.0	7.1	1.6	15.5	15.5	4.0	6.9	7.0	2.3	7.6	9.0
Cycle Q Clear(g_c), s	6.6	7.0	7.1	1.6	15.5	15.5	4.0	6.9	7.0	2.3	7.6	9.0
Prop In Lane	1.00		0.16	1.00		0.23	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	210	597	611	70	457	462	133	566	571	88	548	464
V/C Ratio(X)	0.81	0.39	0.39	0.59	0.89	0.89	0.78	0.40	0.40	0.68	0.46	0.53
Avail Cap(c_a), veh/h	216	597	611	150	470	474	140	566	571	127	548	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	17.8	17.8	33.1	25.1	25.1	31.8	18.6	18.6	32.7	20.2	20.7
Incr Delay (d2), s/veh	19.1	0.4	0.4	7.6	18.7	18.7	23.5	2.1	2.1	9.1	2.7	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.6	2.7	0.8	8.3	8.3	2.5	2.9	3.0	1.2	3.6	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	18.1	18.2	40.6	43.8	43.7	55.4	20.7	20.7	41.8	22.9	24.9
LnGrp LOS	D	B	B	D	D	D	E	C	C	D	C	C
Approach Vol, veh/h		644			862			557			555	
Approach Delay, s/veh		26.4			43.6			27.2			25.9	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	26.8	7.2	28.0	9.7	25.0	12.7	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	20.0	5.9	21.1	5.5	19.5	8.5	18.5				
Max Q Clear Time (g_c+I1), s	4.3	9.0	3.6	9.1	6.0	11.0	8.6	17.5				
Green Ext Time (p_c), s	0.0	1.9	0.0	2.0	0.0	1.6	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				32.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕		↖	↕		↖	↕	↖
Traffic Volume (veh/h)	176	952	54	72	460	53	78	296	64	88	311	194
Future Volume (veh/h)	176	952	54	72	460	53	78	296	64	88	311	194
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	191	1035	59	78	500	58	85	322	70	96	338	211
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	231	1133	65	100	827	96	109	883	189	123	582	493
Arrive On Green	0.13	0.33	0.33	0.06	0.26	0.26	0.06	0.30	0.30	0.07	0.31	0.31
Sat Flow, veh/h	1781	3417	195	1781	3209	371	1781	2910	624	1781	1870	1585
Grp Volume(v), veh/h	191	538	556	78	276	282	85	195	197	96	338	211
Grp Sat Flow(s),veh/h/ln	1781	1777	1835	1781	1777	1804	1781	1777	1758	1781	1870	1585
Q Serve(g_s), s	7.8	21.8	21.8	3.2	10.2	10.3	3.5	6.4	6.6	4.0	11.4	7.9
Cycle Q Clear(g_c), s	7.8	21.8	21.8	3.2	10.2	10.3	3.5	6.4	6.6	4.0	11.4	7.9
Prop In Lane	1.00		0.11	1.00		0.21	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	231	589	608	100	458	465	109	539	533	123	582	493
V/C Ratio(X)	0.83	0.91	0.91	0.78	0.60	0.61	0.78	0.36	0.37	0.78	0.58	0.43
Avail Cap(c_a), veh/h	278	604	624	131	458	465	150	539	533	154	582	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	24.0	24.0	34.9	24.5	24.5	34.7	20.4	20.5	34.4	21.7	20.5
Incr Delay (d2), s/veh	10.6	12.9	12.6	19.6	2.2	2.3	16.1	1.9	2.0	18.0	4.2	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	10.1	10.4	1.9	4.2	4.3	2.0	2.8	2.8	2.3	5.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	36.9	36.6	54.5	26.7	26.8	50.8	22.3	22.5	52.3	25.9	23.2
LnGrp LOS	D	D	D	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1285			636			477			645	
Approach Delay, s/veh		37.6			30.1			27.5			29.0	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	27.3	8.7	29.4	9.1	27.8	14.2	23.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.5	19.5	5.5	25.5	6.3	19.7	11.7	19.3				
Max Q Clear Time (g_c+I1), s	6.0	8.6	5.2	23.8	5.5	13.4	9.8	12.3				
Green Ext Time (p_c), s	0.0	1.6	0.0	1.1	0.0	1.6	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				32.6								
HCM 6th LOS				C								

HCM 6th TWSC
25: Claremont Blvd & 9th St

04/17/2024

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	127	53	432	419	27
Future Vol, veh/h	33	127	53	432	419	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	138	58	470	455	29

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	821	242	484	0	0
Stage 1	470	-	-	-	-
Stage 2	351	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-
Pot Cap-1 Maneuver	313	759	1075	-	-
Stage 1	595	-	-	-	-
Stage 2	684	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	296	759	1075	-	-
Mov Cap-2 Maneuver	296	-	-	-	-
Stage 1	563	-	-	-	-
Stage 2	684	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1075	-	574	-	-
HCM Lane V/C Ratio	0.054	-	0.303	-	-
HCM Control Delay (s)	8.5	-	14	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.3	-	-

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	128	61	500	451	32
Future Vol, veh/h	50	128	61	500	451	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	139	66	543	490	35

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	912	263	525	0	-	0
Stage 1	508	-	-	-	-	-
Stage 2	404	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	273	735	1038	-	-	-
Stage 1	569	-	-	-	-	-
Stage 2	643	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	256	735	1038	-	-	-
Mov Cap-2 Maneuver	256	-	-	-	-	-
Stage 1	533	-	-	-	-	-
Stage 2	643	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.4	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1038	-	482	-	-
HCM Lane V/C Ratio	0.064	-	0.401	-	-
HCM Control Delay (s)	8.7	-	17.4	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.9	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	40	0	0	61	0	0
Future Vol, veh/h	40	0	0	61	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	0	0	66	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	22
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	-	0	1050
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	1050
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	65	0	0	61	0	0
Future Vol, veh/h	65	0	0	61	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	1082	443776	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	0	0	66	0	0

Major/Minor	Minor2	Major2		
Conflicting Flow All	66	33	-	-
Stage 1	66	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.54	6.94	-	-
Critical Hdwy Stg 1	5.54	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	4.02	3.32	-	-
Pot Cap-1 Maneuver	824	1033	0	-
Stage 1	839	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	0	1033	-	-
Mov Cap-2 Maneuver	0	-	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-

Approach	EB	WB
HCM Control Delay, s		0
HCM LOS	-	

Minor Lane/Major Mvmt	EBLn1	EBLn2	WBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	-
HCM Lane LOS	-	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	16	0	0	15
Future Vol, veh/h	0	0	16	0	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	17	0	0	16

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	9	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	1070	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1070	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	18	0	0	22
Future Vol, veh/h	0	0	18	0	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	20	0	0	24

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	10	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	1069	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1069	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	18	13	0
Future Vol, veh/h	0	0	0	18	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	19	14	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	7	14	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-
Pot Cap-1 Maneuver	0	909	1137	-	-
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	909	1137	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1137	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	18	24	0
Future Vol, veh/h	0	0	0	18	24	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	19	25	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	13	25	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-
Pot Cap-1 Maneuver	0	901	1124	-	-
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	901	1124	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1124	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th Signalized Intersection Summary
 29: Monte Vista Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↖	↖	↕		↖	↗	↖
Traffic Volume (veh/h)	0	0	0	70	0	76	0	464	54	58	536	1
Future Volume (veh/h)	0	0	0	70	0	76	0	464	54	58	536	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	74	0	80	0	488	57	61	564	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	127	198	168	5	1524	177	216	3456	6
Arrive On Green	0.00	0.00	0.00	0.07	0.00	0.11	0.00	0.48	0.48	0.06	0.66	0.66
Sat Flow, veh/h	0	-59738	0	1781	1870	1585	1781	3207	373	3456	5263	9
Grp Volume(v), veh/h	0	0	0	74	0	80	0	270	275	61	365	200
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1803	1728	1702	1869
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	1.8	0.0	3.6	3.6	0.6	1.6	1.6
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5	0.0	1.8	0.0	3.6	3.6	0.6	1.6	1.6
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.21	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	127	198	168	5	844	857	216	2235	1227
V/C Ratio(X)	0.00	0.00	0.00	0.58	0.00	0.48	0.00	0.32	0.32	0.28	0.16	0.16
Avail Cap(c_a), veh/h	0	889	0	235	889	753	235	844	857	456	2235	1227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	17.0	0.0	15.9	0.0	6.1	6.2	16.9	2.5	2.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.2	0.0	2.1	0.0	1.0	1.0	0.7	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.6	0.0	0.9	0.9	0.2	0.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	21.2	0.0	18.0	0.0	7.1	7.1	17.7	2.7	2.8
LnGrp LOS	A	A	A	C	A	B	A	A	A	B	A	A
Approach Vol, veh/h		0			154			545			626	
Approach Delay, s/veh		0.0			19.6			7.1			4.2	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	22.5	7.2	1.3	0.0	29.4		8.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.6	5.6	3.5	0.0	0.0	3.6		3.8				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	3.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				7.2								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

29: Richton St & Monte Vista Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↖	↖	↕		↖	↗	↖
Traffic Volume (veh/h)	0	0	0	89	0	74	1	590	75	35	685	0
Future Volume (veh/h)	0	0	0	89	0	74	1	590	75	35	685	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	94	0	78	1	621	79	37	721	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	149	209	177	5	1533	195	148	2679	0
Arrive On Green	0.00	0.00	0.00	0.08	0.00	0.11	0.00	0.48	0.48	0.04	0.52	0.00
Sat Flow, veh/h	0	-64583	0	1781	1870	1585	1781	3172	403	3456	5274	0
Grp Volume(v), veh/h	0	0	0	94	0	78	1	347	353	37	721	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1798	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	1.7	0.0	4.7	4.7	0.4	2.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.9	0.0	1.7	0.0	4.7	4.7	0.4	2.9	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.22	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	149	209	177	5	859	869	148	2679	0
V/C Ratio(X)	0.00	0.00	0.00	0.63	0.00	0.44	0.21	0.40	0.41	0.25	0.27	0.00
Avail Cap(c_a), veh/h	0	904	0	239	904	766	239	859	869	464	2679	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.5	0.0	15.5	18.6	6.2	6.2	17.3	4.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.4	0.0	1.7	20.3	1.4	1.4	0.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.8	0.0	0.6	0.0	1.4	1.4	0.1	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	20.9	0.0	17.2	38.9	7.6	7.6	18.1	5.1	0.0
LnGrp LOS	A	A	A	C	A	B	D	A	A	B	A	A
Approach Vol, veh/h		0			172			701			758	
Approach Delay, s/veh		0.0			19.2			7.6			5.8	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	22.5	7.6	1.0	4.6	24.0		8.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.4	6.7	3.9	0.0	2.0	4.9		3.7				
Green Ext Time (p_c), s	0.0	3.4	0.0	0.0	0.0	4.1		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				8.0								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

03/19/2024


























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	43	414	78	222	507	56	101	44	206	72	76	67
Future Volume (veh/h)	43	414	78	222	507	56	101	44	206	72	76	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	450	85	241	551	61	110	48	224	78	83	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	666	297	289	1081	482	607	756	674	486	801	637
Arrive On Green	0.05	0.19	0.19	0.16	0.30	0.30	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1231	1777	1585	1107	1882	1496
Grp Volume(v), veh/h	47	450	85	241	551	61	110	48	224	78	78	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1231	1777	1585	1107	1777	1601
Q Serve(g_s), s	1.6	7.1	2.8	7.9	7.7	1.7	3.6	1.0	5.7	3.0	1.6	1.8
Cycle Q Clear(g_c), s	1.6	7.1	2.8	7.9	7.7	1.7	5.3	1.0	5.7	8.7	1.6	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	81	666	297	289	1081	482	607	756	674	486	756	681
V/C Ratio(X)	0.58	0.68	0.29	0.83	0.51	0.13	0.18	0.06	0.33	0.16	0.10	0.11
Avail Cap(c_a), veh/h	172	1066	476	312	1344	600	607	756	674	486	756	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	22.7	20.9	24.3	17.2	15.1	12.0	10.2	11.5	14.4	10.4	10.4
Incr Delay (d2), s/veh	6.5	1.2	0.5	15.4	0.3	0.1	0.6	0.1	1.2	0.7	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.9	1.0	4.3	2.9	0.6	1.0	0.4	2.0	0.8	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	23.9	21.5	39.7	17.5	15.2	12.6	10.3	12.7	15.2	10.6	10.8
LnGrp LOS	C	C	C	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		582			853			382			234	
Approach Delay, s/veh		24.4			23.6			12.4			12.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.0	14.2	15.7		30.0	7.2	22.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	10.5	18.0		18.0	5.8	22.7				
Max Q Clear Time (g_c+I1), s		7.7	9.9	9.1		10.7	3.6	9.7				
Green Ext Time (p_c), s		1.5	0.0	2.2		0.6	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				20.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

























1: Indian Hill Blvd & Base Line Rd

03/20/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	444	82	210	457	46	102	54	171	59	61	57
Future Volume (veh/h)	36	444	82	210	457	46	102	54	171	59	61	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	483	89	228	497	50	111	59	186	64	66	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	701	312	276	1110	495	623	751	670	513	775	650
Arrive On Green	0.04	0.20	0.20	0.16	0.31	0.31	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1262	1777	1585	1135	1834	1537
Grp Volume(v), veh/h	39	483	89	228	497	50	111	59	186	64	64	64
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1262	1777	1585	1135	1777	1594
Q Serve(g_s), s	1.3	7.6	2.9	7.4	6.7	1.3	3.5	1.2	4.6	2.3	1.3	1.5
Cycle Q Clear(g_c), s	1.3	7.6	2.9	7.4	6.7	1.3	4.9	1.2	4.6	6.9	1.3	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.96
Lane Grp Cap(c), veh/h	71	701	312	276	1110	495	623	751	670	513	751	674
V/C Ratio(X)	0.55	0.69	0.28	0.83	0.45	0.10	0.18	0.08	0.28	0.12	0.08	0.10
Avail Cap(c_a), veh/h	166	1066	476	312	1356	605	623	751	670	513	751	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	22.4	20.5	24.6	16.5	14.6	11.9	10.3	11.3	13.6	10.4	10.4
Incr Delay (d2), s/veh	6.5	1.2	0.5	14.3	0.3	0.1	0.6	0.2	1.0	0.5	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.1	1.0	4.0	2.5	0.5	1.0	0.5	1.6	0.6	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	23.6	21.0	38.9	16.8	14.7	12.5	10.5	12.3	14.1	10.6	10.7
LnGrp LOS	C	C	C	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		611			775			356			192	
Approach Delay, s/veh		23.9			23.1			12.1			11.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.9	13.8	16.3		29.9	6.9	23.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	10.5	18.0		18.0	5.6	22.9				
Max Q Clear Time (g_c+I1), s		6.9	9.4	9.6		8.9	3.3	8.7				
Green Ext Time (p_c), s		1.4	0.1	2.3		0.6	0.0	3.0				
Intersection Summary												
HCM 6th Ctrl Delay				20.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	532	69	87	511	96	108	93	73	108	85	143
Future Volume (veh/h)	75	532	69	87	511	96	108	93	73	108	85	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	578	75	95	555	104	117	101	79	117	92	155
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	823	367	124	839	374	686	848	719	677	848	719
Arrive On Green	0.06	0.23	0.23	0.07	0.24	0.24	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1304	1870	1585	1294	1870	1585
Grp Volume(v), veh/h	82	578	75	95	555	104	117	101	79	117	92	155
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1304	1870	1585	1294	1870	1585
Q Serve(g_s), s	2.5	8.2	2.1	2.9	7.8	3.0	3.1	1.7	1.6	3.2	1.6	3.3
Cycle Q Clear(g_c), s	2.5	8.2	2.1	2.9	7.8	3.0	4.7	1.7	1.6	4.9	1.6	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	823	367	124	839	374	686	848	719	677	848	719
V/C Ratio(X)	0.71	0.70	0.20	0.77	0.66	0.28	0.17	0.12	0.11	0.17	0.11	0.22
Avail Cap(c_a), veh/h	162	1163	519	178	1195	533	686	848	719	677	848	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.84	0.84	0.84	0.48	0.48	0.48	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	19.4	17.0	25.1	19.0	17.2	10.0	8.7	8.6	10.1	8.6	9.1
Incr Delay (d2), s/veh	6.9	0.9	0.2	9.8	0.8	0.3	0.3	0.1	0.1	0.6	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.2	0.7	1.5	3.0	1.0	0.8	0.6	0.5	0.9	0.6	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	20.3	17.3	34.9	19.8	17.5	10.2	8.8	8.8	10.6	8.9	9.8
LnGrp LOS	C	C	B	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		735			754			297			364	
Approach Delay, s/veh		21.3			21.4			9.4			9.8	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.4	8.3	17.2		29.4	8.1	17.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.5	18.0		18.0	5.0	18.5				
Max Q Clear Time (g_c+I1), s		6.7	4.9	10.2		6.9	4.5	9.8				
Green Ext Time (p_c), s		0.9	0.0	2.5		1.1	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay				17.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	65	552	63	84	432	79	101	87	71	99	119	134
Future Volume (veh/h)	65	552	63	84	432	79	101	87	71	99	119	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	600	68	91	470	86	110	95	77	108	129	146
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	843	376	122	872	389	646	840	712	677	840	712
Arrive On Green	0.06	0.24	0.24	0.07	0.25	0.25	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1261	1870	1585	1301	1870	1585
Grp Volume(v), veh/h	71	600	68	91	470	86	110	95	77	108	129	146
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1261	1870	1585	1301	1870	1585
Q Serve(g_s), s	2.1	8.5	1.9	2.8	6.3	2.4	3.1	1.6	1.5	2.9	2.2	3.1
Cycle Q Clear(g_c), s	2.1	8.5	1.9	2.8	6.3	2.4	5.4	1.6	1.5	4.5	2.2	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	843	376	122	872	389	646	840	712	677	840	712
V/C Ratio(X)	0.66	0.71	0.18	0.75	0.54	0.22	0.17	0.11	0.11	0.16	0.15	0.21
Avail Cap(c_a), veh/h	162	1163	519	178	1195	533	646	840	712	677	840	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.86	0.86	0.86	0.64	0.64	0.64	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	19.2	16.7	25.2	18.0	16.6	10.6	8.8	8.8	10.1	9.0	9.2
Incr Delay (d2), s/veh	5.7	1.0	0.2	8.2	0.4	0.2	0.4	0.2	0.2	0.5	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.3	0.6	1.4	2.4	0.8	0.8	0.6	0.5	0.8	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.0	20.3	16.9	33.4	18.5	16.8	10.9	9.0	9.0	10.6	9.4	9.8
LnGrp LOS	C	C	B	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		739			647			282			383	
Approach Delay, s/veh		21.0			20.4			9.7			9.9	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.2	8.3	17.5		29.2	7.8	18.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.5	18.0		18.0	5.0	18.5				
Max Q Clear Time (g_c+I1), s		7.4	4.8	10.5		6.5	4.1	8.3				
Green Ext Time (p_c), s		0.8	0.0	2.5		1.2	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				17.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘↘	↗↗	↘	↘	↗	↘	↘	↗↗	↘
Traffic Volume (veh/h)	35	547	154	483	524	137	137	112	477	149	95	52
Future Volume (veh/h)	35	547	154	483	524	137	137	112	477	149	95	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	595	167	525	570	149	149	122	518	162	103	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	758	338	523	1164	519	563	574	486	434	694	360
Arrive On Green	0.04	0.21	0.21	0.15	0.33	0.33	0.07	0.31	0.31	0.07	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2262	1174
Grp Volume(v), veh/h	38	595	167	525	570	149	149	122	518	162	79	81
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1659
Q Serve(g_s), s	1.5	11.1	6.5	10.6	9.0	4.9	4.0	3.4	21.5	4.4	2.3	2.5
Cycle Q Clear(g_c), s	1.5	11.1	6.5	10.6	9.0	4.9	4.0	3.4	21.5	4.4	2.3	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.71
Lane Grp Cap(c), veh/h	66	758	338	523	1164	519	563	574	486	434	545	509
V/C Ratio(X)	0.57	0.78	0.49	1.00	0.49	0.29	0.26	0.21	1.07	0.37	0.15	0.16
Avail Cap(c_a), veh/h	145	914	408	523	1164	519	563	574	486	434	545	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	26.0	24.2	29.7	18.9	17.5	14.8	18.0	24.3	15.0	17.6	17.7
Incr Delay (d2), s/veh	6.6	3.3	1.0	40.1	0.3	0.3	0.2	0.8	58.0	0.5	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.5	2.3	6.9	3.3	1.6	1.5	1.4	14.8	1.6	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	29.3	25.2	69.8	19.2	17.8	15.1	18.8	82.3	15.5	18.2	18.3
LnGrp LOS	D	C	C	F	B	B	B	B	F	B	B	B
Approach Vol, veh/h		800			1244			789			322	
Approach Delay, s/veh		28.9			40.4			59.8			16.9	
Approach LOS		C			D			E			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	26.0	15.1	19.4	9.5	26.0	7.1	27.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.4	10.6	18.0	5.0	18.4	5.7	22.9				
Max Q Clear Time (g_c+I1), s	6.4	23.5	12.6	13.1	6.0	4.5	3.5	11.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	0.6	0.0	3.1				
Intersection Summary												
HCM 6th Ctrl Delay				39.9								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↑	
Traffic Volume (veh/h)	33	607	123	399	510	122	102	108	493	138	81	27
Future Volume (veh/h)	33	607	123	399	510	122	102	108	493	138	81	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	660	134	434	554	133	111	117	536	150	88	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	807	360	489	1182	527	581	566	480	430	827	261
Arrive On Green	0.04	0.23	0.23	0.14	0.33	0.33	0.06	0.30	0.30	0.07	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2657	839
Grp Volume(v), veh/h	36	660	134	434	554	133	111	117	536	150	58	59
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1719
Q Serve(g_s), s	1.4	12.3	5.0	8.6	8.6	4.3	2.9	3.3	21.2	4.0	1.6	1.7
Cycle Q Clear(g_c), s	1.4	12.3	5.0	8.6	8.6	4.3	2.9	3.3	21.2	4.0	1.6	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	64	807	360	489	1182	527	581	566	480	430	553	535
V/C Ratio(X)	0.56	0.82	0.37	0.89	0.47	0.25	0.19	0.21	1.12	0.35	0.10	0.11
Avail Cap(c_a), veh/h	145	914	408	489	1182	527	598	566	480	430	553	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	25.7	22.8	29.5	18.5	17.0	15.0	18.1	24.4	15.1	17.2	17.2
Incr Delay (d2), s/veh	6.4	4.5	0.5	17.8	0.3	0.2	0.2	0.8	76.0	0.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.2	1.7	4.5	3.1	1.4	1.1	1.4	17.0	1.5	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	30.2	23.4	47.3	18.8	17.3	15.2	18.9	100.4	15.5	17.5	17.6
LnGrp LOS	D	C	C	D	B	B	B	B	F	B	B	B
Approach Vol, veh/h		830			1121			764			267	
Approach Delay, s/veh		29.5			29.6			75.5			16.4	
Approach LOS		C			C			E			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	25.7	14.4	20.4	8.9	26.3	7.0	27.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.1	9.9	18.0	5.1	19.0	5.7	22.2				
Max Q Clear Time (g_c+I1), s	6.0	23.2	10.6	14.3	4.9	3.7	3.4	10.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	0.4	0.0	3.0				
Intersection Summary												
HCM 6th Ctrl Delay			40.2									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/03/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘		↗↘	↘		↗
Traffic Volume (veh/h)	127	600	453	63	504	337	175	0	580	90	0	457
Future Volume (veh/h)	127	600	453	63	504	337	175	0	580	90	0	457
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	138	652	492	68	548	366	190	0	630	98	0	497
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	168	1055	470	93	906	404	816	0	0	816	0	0
Arrive On Green	0.09	0.30	0.30	0.05	0.25	0.25	0.46	0.00	0.00	0.46	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	190		1781	98	
Grp Volume(v), veh/h	138	652	492	68	548	366	190	11.7		98	10.9	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	5.3	11.1	20.8	2.6	9.5	15.7	4.5			2.2		
Cycle Q Clear(g_c), s	5.3	11.1	20.8	2.6	9.5	15.7	4.5			2.2		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	168	1055	470	93	906	404	816			816		
V/C Ratio(X)	0.82	0.62	1.05	0.73	0.61	0.91	0.23			0.12		
Avail Cap(c_a), veh/h	168	1055	470	148	914	408	816			816		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	31.1	21.2	24.6	32.7	23.0	25.3	11.5			10.9		
Incr Delay (d2), s/veh	26.7	1.1	54.0	10.3	1.1	23.3	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	3.3	4.2	13.8	1.3	3.7	7.8	1.5			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	22.3	78.6	43.0	24.1	48.5	11.7			10.9		
LnGrp LOS	E	C	F	D	C	D	B			B		
Approach Vol, veh/h		1282			982							
Approach Delay, s/veh		47.7			34.5							
Approach LOS		D			C							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	36.6		8.2	25.3	36.6		11.1	22.3				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	6.5		5.8	18.8	8.5		6.6	18.0				
Max Q Clear Time (g_c+I1), s	4.2		4.6	22.8	6.5		7.3	17.7				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			38.6									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	601	459	48	437	347	130	0	696	76	0	463
Future Volume (veh/h)	173	601	459	48	437	347	130	0	696	76	0	463
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	188	653	499	52	475	377	141	0	757	83	0	503
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	227	1149	513	79	853	380	806	0	0	806	0	0
Arrive On Green	0.13	0.32	0.32	0.04	0.24	0.24	0.45	0.00	0.00	0.45	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	141		1781	83	
Grp Volume(v), veh/h	188	653	499	52	475	377	141	12.3		83	11.8	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	7.7	11.4	23.3	2.2	8.8	17.8	3.5			2.0		
Cycle Q Clear(g_c), s	7.7	11.4	23.3	2.2	8.8	17.8	3.5			2.0		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	227	1149	513	79	853	380	806			806		
V/C Ratio(X)	0.83	0.57	0.97	0.66	0.56	0.99	0.17			0.10		
Avail Cap(c_a), veh/h	249	1149	513	121	853	380	806			806		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	31.9	21.0	25.1	35.3	25.0	28.4	12.2			11.8		
Incr Delay (d2), s/veh	18.8	0.7	32.9	9.1	0.8	43.6	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.3	4.3	12.3	1.1	3.5	10.7	1.2			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	21.7	57.9	44.4	25.8	72.1	12.3			11.8		
LnGrp LOS	D	C	E	D	C	E	B			B		
Approach Vol, veh/h		1340			904							
Approach Delay, s/veh		39.2			46.2							
Approach LOS		D			D							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	38.4		7.8	28.8	38.4		14.1	22.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	6.3		5.1	23.4	7.5		10.5	18.0				
Max Q Clear Time (g_c+I1), s	4.0		4.2	25.3	5.5		9.7	19.8				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			39.3									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis
5: Monte Vista Ave & Claremont Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	233	0	18	1	0	0	19	466	1	2	466	205
Future Volume (vph)	233	0	18	1	0	0	19	466	1	2	466	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1612	1504		1770		1770	3538		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.47	1.00	1.00
Satd. Flow (perm)	1681	1612	1504		1863		1770	3538		866	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	253	0	20	1	0	0	21	507	1	2	507	223
RTOR Reduction (vph)	0	111	15	0	0	0	0	0	0	0	0	93
Lane Group Flow (vph)	126	18	3	0	1	0	21	508	0	2	507	130
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2				6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	11.3	11.3	11.3		1.2		3.0	54.0		46.5	46.5	46.5
Effective Green, g (s)	11.3	11.3	11.3		1.2		3.0	54.0		46.5	46.5	46.5
Actuated g/C Ratio	0.14	0.14	0.14		0.01		0.04	0.68		0.58	0.58	0.58
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	237	227	212		27		66	2388		503	2057	920
v/s Ratio Prot	c0.07	0.01					0.01	c0.14				c0.14
v/s Ratio Perm			0.00		c0.00					0.00		0.08
v/c Ratio	0.53	0.08	0.01		0.04		0.32	0.21		0.00	0.25	0.14
Uniform Delay, d1	31.9	29.8	29.5		38.8		37.5	4.9		7.0	8.2	7.6
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.3	0.2	0.0		0.6		2.8	0.2		0.0	0.3	0.3
Delay (s)	34.2	30.0	29.6		39.4		40.3	5.1		7.0	8.5	8.0
Level of Service	C	C	C		D		D	A		A	A	A
Approach Delay (s)		31.9			39.4			6.5			8.3	
Approach LOS		C			D			A			A	

Intersection Summary

HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	32.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	235	0	23	4	7	1	12	384	2	2	430	196
Future Volume (vph)	235	0	23	4	7	1	12	384	2	2	430	196
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1611	1504		1815		1770	3537		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.51	1.00	1.00
Satd. Flow (perm)	1681	1611	1504		1843		1770	3537		944	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	255	0	25	4	8	1	13	417	2	2	467	213
RTOR Reduction (vph)	0	110	19	0	1	0	0	0	0	0	0	87
Lane Group Flow (vph)	130	18	3	0	12	0	13	419	0	2	467	126
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	
Permitted Phases			4	8						6		6
Actuated Green, G (s)	11.5	11.5	11.5		1.5		1.5	53.5		47.5	47.5	47.5
Effective Green, g (s)	11.5	11.5	11.5		1.5		1.5	53.5		47.5	47.5	47.5
Actuated g/C Ratio	0.14	0.14	0.14		0.02		0.02	0.67		0.59	0.59	0.59
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	241	231	216		34		33	2365		560	2101	939
v/s Ratio Prot	c0.08	0.01					0.01	c0.12			c0.13	
v/s Ratio Perm			0.00		c0.01					0.00		0.08
v/c Ratio	0.54	0.08	0.01		0.35		0.39	0.18		0.00	0.22	0.13
Uniform Delay, d1	31.8	29.7	29.4		38.8		38.8	5.0		6.6	7.6	7.2
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.3	0.1	0.0		6.2		7.6	0.2		0.0	0.2	0.3
Delay (s)	34.1	29.8	29.4		45.0		46.4	5.1		6.6	7.8	7.5
Level of Service	C	C	C		D		D	A		A	A	A
Approach Delay (s)		31.8			45.0			6.4			7.7	
Approach LOS		C			D			A			A	























Intersection Summary		
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.29	B
Actuated Cycle Length (s)	80.0	Sum of lost time (s)
Intersection Capacity Utilization	32.8%	18.0
Analysis Period (min)	15	ICU Level of Service
		A

c Critical Lane Group

HCM 6th Signalized Intersection Summary

6: Foothill Blvd & Indian Hill Blvd

03/19/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	656	152	150	674	86	200	273	148	130	243	74
Future Volume (veh/h)	64	656	152	150	674	86	200	273	148	130	243	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	713	165	163	733	93	217	297	161	141	264	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	745	172	188	1116	498	249	664	351	177	476	404
Arrive On Green	0.05	0.26	0.26	0.11	0.31	0.31	0.14	0.30	0.30	0.10	0.25	0.25
Sat Flow, veh/h	1781	2865	663	1781	3554	1585	1781	2247	1187	1781	1870	1585
Grp Volume(v), veh/h	70	442	436	163	733	93	217	233	225	141	264	80
Grp Sat Flow(s),veh/h/ln	1781	1777	1751	1781	1777	1585	1781	1777	1657	1781	1870	1585
Q Serve(g_s), s	2.9	18.4	18.4	6.8	13.4	3.2	8.9	8.0	8.3	5.8	9.2	3.0
Cycle Q Clear(g_c), s	2.9	18.4	18.4	6.8	13.4	3.2	8.9	8.0	8.3	5.8	9.2	3.0
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.72	1.00		1.00
Lane Grp Cap(c), veh/h	91	462	455	188	1116	498	249	525	490	177	476	404
V/C Ratio(X)	0.77	0.96	0.96	0.87	0.66	0.19	0.87	0.44	0.46	0.80	0.55	0.20
Avail Cap(c_a), veh/h	124	462	455	188	1116	498	249	525	490	216	476	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	35.1	27.3	27.3	33.0	22.2	18.7	31.6	21.4	21.5	33.1	24.3	21.9
Incr Delay (d2), s/veh	17.9	31.0	31.4	32.5	1.4	0.2	26.5	2.7	3.1	14.0	4.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	11.1	11.0	4.4	5.3	1.1	5.5	3.5	3.4	3.1	4.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	58.4	58.8	65.6	23.6	18.9	58.1	24.1	24.6	47.1	28.3	22.9
LnGrp LOS	D	E	E	E	C	B	E	C	C	D	C	C
Approach Vol, veh/h		948			989			675			485	
Approach Delay, s/veh		58.2			30.1			35.2			32.9	
Approach LOS		E			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	26.7	12.4	24.0	15.0	23.6	8.3	28.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.1	20.5	7.9	19.5	10.5	19.1	5.2	22.2				
Max Q Clear Time (g_c+I1), s	7.8	10.3	8.8	20.4	10.9	11.2	4.9	15.4				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.0	0.0	1.1	0.0	2.8				
Intersection Summary												
HCM 6th Ctrl Delay			40.2									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

6: Foothill Blvd & Indian Hill Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	663	126	125	580	81	190	239	142	122	227	90
Future Volume (veh/h)	55	663	126	125	580	81	190	239	142	122	227	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	721	137	136	630	88	207	260	154	133	247	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	789	150	169	1115	497	245	700	401	167	520	440
Arrive On Green	0.05	0.26	0.26	0.10	0.31	0.31	0.14	0.32	0.32	0.09	0.28	0.28
Sat Flow, veh/h	1781	2979	566	1781	3554	1585	1781	2176	1247	1781	1870	1585
Grp Volume(v), veh/h	60	430	428	136	630	88	207	211	203	133	247	98
Grp Sat Flow(s),veh/h/ln	1781	1777	1769	1781	1777	1585	1781	1777	1646	1781	1870	1585
Q Serve(g_s), s	2.7	18.8	18.8	6.0	11.8	3.2	9.1	7.3	7.6	5.9	8.8	3.8
Cycle Q Clear(g_c), s	2.7	18.8	18.8	6.0	11.8	3.2	9.1	7.3	7.6	5.9	8.8	3.8
Prop In Lane	1.00		0.32	1.00		1.00	1.00		0.76	1.00		1.00
Lane Grp Cap(c), veh/h	82	470	468	169	1115	497	245	571	529	167	520	440
V/C Ratio(X)	0.73	0.91	0.91	0.80	0.56	0.18	0.85	0.37	0.38	0.80	0.48	0.22
Avail Cap(c_a), veh/h	156	478	475	189	1115	497	256	571	529	212	520	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	37.7	28.5	28.5	35.5	22.9	19.9	33.7	20.9	21.0	35.5	24.0	22.2
Incr Delay (d2), s/veh	11.8	21.9	22.1	19.7	0.7	0.2	21.6	1.8	2.1	13.8	2.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	10.2	10.2	3.4	4.7	1.1	5.2	3.1	3.1	3.1	4.1	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	50.4	50.6	55.2	23.6	20.1	55.2	22.7	23.1	49.3	26.8	23.3
LnGrp LOS	D	D	D	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		918			854			621			478	
Approach Delay, s/veh		50.5			28.2			33.7			32.3	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	30.2	12.1	25.7	15.5	26.7	8.2	29.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	22.5	8.5	21.5	11.5	20.5	7.0	23.0				
Max Q Clear Time (g_c+I1), s	7.9	9.6	8.0	20.8	11.1	10.8	4.7	13.8				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.4	0.0	1.2	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay				37.2								
HCM 6th LOS				D								

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗			↗			↗
Traffic Vol, veh/h	46	865	56	75	842	11	0	0	107	0	0	47
Future Vol, veh/h	46	865	56	75	842	11	0	0	107	0	0	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	940	61	82	915	12	0	0	116	0	0	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	927	0	0	1001	0	0	-	-	470	-	-	458
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	733	-	-	687	-	-	0	0	540	0	0	550
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	733	-	-	687	-	-	-	-	540	-	-	550
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.9			13.5			12.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	540	733	-	-	687	-	-	550
HCM Lane V/C Ratio	0.215	0.068	-	-	0.119	-	-	0.093
HCM Control Delay (s)	13.5	10.3	-	-	10.9	-	-	12.2
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.8	0.2	-	-	0.4	-	-	0.3

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗			↗			↗
Traffic Vol, veh/h	44	988	61	91	819	24	0	0	138	46	0	0
Future Vol, veh/h	44	988	61	91	819	24	0	0	138	46	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	1074	66	99	890	26	0	0	150	50	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	916	0	0	1140	0	0	-	-	537	1721	-	445
Stage 1	-	-	-	-	-	-	-	-	-	1088	-	-
Stage 2	-	-	-	-	-	-	-	-	-	633	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	740	-	-	609	-	-	0	0	488	57	0	561
Stage 1	-	-	-	-	-	-	0	0	-	230	0	-
Stage 2	-	-	-	-	-	-	0	0	-	434	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	740	-	-	609	-	-	-	-	488	~ 33	-	561
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	~ 33	-	-
Stage 1	-	-	-	-	-	-	-	-	-	215	-	-
Stage 2	-	-	-	-	-	-	-	-	-	281	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			1.2			15.6			0		
HCM LOS							C			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	488	740	-	-	609	-	-	-
HCM Lane V/C Ratio	0.307	0.065	-	-	0.162	-	-	-
HCM Control Delay (s)	15.6	10.2	-	-	12.1	-	-	0
HCM Lane LOS	C	B	-	-	B	-	-	A
HCM 95th %tile Q(veh)	1.3	0.2	-	-	0.6	-	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑	↖	↗	↑↑			↕			↕	
Traffic Volume (veh/h)	9	945	30	37	912	10	37	5	26	27	8	0
Future Volume (veh/h)	9	945	30	37	912	10	37	5	26	27	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1027	33	40	991	11	40	5	28	29	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	244	1437	641	230	1456	16	425	75	242	582	164	0
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.42	0.42	0.42	0.42	0.42	0.00
Sat Flow, veh/h	562	3554	1585	532	3600	40	755	180	582	1095	396	0
Grp Volume(v), veh/h	10	1027	33	40	489	513	73	0	0	38	0	0
Grp Sat Flow(s),veh/h/ln	562	1777	1585	532	1777	1863	1516	0	0	1490	0	0
Q Serve(g_s), s	0.7	12.1	0.6	3.4	11.3	11.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.1	12.1	0.6	15.5	11.3	11.3	1.3	0.0	0.0	0.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.55		0.38	0.76		0.00
Lane Grp Cap(c), veh/h	244	1437	641	230	718	753	742	0	0	746	0	0
V/C Ratio(X)	0.04	0.71	0.05	0.17	0.68	0.68	0.10	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	270	1599	713	255	800	838	742	0	0	746	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.2	12.5	9.1	19.0	12.2	12.2	8.9	0.0	0.0	8.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.4	0.0	0.2	1.3	1.2	0.3	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.8	0.2	0.4	3.6	3.7	0.5	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	13.8	9.1	19.2	13.5	13.4	9.2	0.0	0.0	8.8	0.0	0.0
LnGrp LOS	B	B	A	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1070			1042			73			38	
Approach Delay, s/veh		13.7			13.7			9.2			8.8	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.3		24.7		25.3		24.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		3.3		14.1		2.6		17.5				
Green Ext Time (p_c), s		0.2		4.3		0.1		2.7				
Intersection Summary												
HCM 6th Ctrl Delay				13.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	959	27	32	974	10	16	2	24	10	4	0
Future Volume (veh/h)	14	959	27	32	974	10	16	2	24	10	4	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	1042	29	35	1059	11	17	2	26	11	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	1373	612	231	1392	14	307	75	372	572	188	0
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.41	0.41	0.41	0.41	0.41	0.00
Sat Flow, veh/h	527	3554	1585	541	3603	37	475	181	898	1047	454	0
Grp Volume(v), veh/h	15	1042	29	35	522	548	45	0	0	15	0	0
Grp Sat Flow(s),veh/h/ln	527	1777	1585	541	1777	1864	1555	0	0	1501	0	0
Q Serve(g_s), s	1.1	11.5	0.5	2.7	11.5	11.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.6	11.5	0.5	14.2	11.5	11.5	0.7	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.38		0.58	0.73		0.00
Lane Grp Cap(c), veh/h	229	1373	612	231	686	720	753	0	0	759	0	0
V/C Ratio(X)	0.07	0.76	0.05	0.15	0.76	0.76	0.06	0.00	0.00	0.02	0.00	0.00
Avail Cap(c_a), veh/h	236	1421	634	239	711	745	753	0	0	759	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.56	0.56	0.56	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.5	12.0	8.6	18.1	12.0	12.0	7.9	0.0	0.0	7.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	2.4	0.0	0.2	2.7	2.5	0.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.0	0.1	0.3	4.1	4.2	0.2	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.6	14.3	8.7	18.3	14.7	14.5	8.1	0.0	0.0	7.8	0.0	0.0
LnGrp LOS	B	B	A	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1086			1105			45			15	
Approach Delay, s/veh		14.2			14.7			8.1			7.8	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.1		21.9		23.1		21.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.7		14.6		2.2		16.2				
Green Ext Time (p_c), s		0.1		2.2		0.0		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				14.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖		↖	↖	↖	↖	↖
Traffic Volume (veh/h)	165	904	18	21	768	124	5	6	23	110	5	166
Future Volume (veh/h)	165	904	18	21	768	124	5	6	23	110	5	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	983	20	23	835	135	5	7	25	120	5	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	217	1286	26	45	940	419	227	292	457	152	811	687
Arrive On Green	0.12	0.36	0.36	0.03	0.26	0.26	0.29	0.29	0.29	0.09	0.43	0.43
Sat Flow, veh/h	1781	3562	72	1781	3554	1585	550	1012	1585	1781	1870	1585
Grp Volume(v), veh/h	179	490	513	23	835	135	12	0	25	120	5	180
Grp Sat Flow(s),veh/h/ln	1781	1777	1857	1781	1777	1585	1562	0	1585	1781	1870	1585
Q Serve(g_s), s	7.4	18.3	18.3	1.0	16.9	5.1	0.0	0.0	0.9	5.0	0.1	5.4
Cycle Q Clear(g_c), s	7.4	18.3	18.3	1.0	16.9	5.1	0.3	0.0	0.9	5.0	0.1	5.4
Prop In Lane	1.00		0.04	1.00		1.00	0.42		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	217	642	671	45	940	419	518	0	457	152	811	687
V/C Ratio(X)	0.82	0.76	0.76	0.51	0.89	0.32	0.02	0.00	0.05	0.79	0.01	0.26
Avail Cap(c_a), veh/h	226	642	671	119	971	433	518	0	457	178	811	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	0.81	0.81	0.81	1.00	0.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	32.1	21.1	21.1	36.1	26.5	22.2	19.1	0.0	19.3	33.6	12.1	13.6
Incr Delay (d2), s/veh	14.3	3.6	3.4	7.0	8.2	0.4	0.1	0.0	0.2	17.8	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	7.4	7.7	0.5	7.6	1.8	0.2	0.0	0.3	2.8	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.4	24.7	24.6	43.1	34.8	22.5	19.2	0.0	19.5	51.4	12.1	14.5
LnGrp LOS	D	C	C	D	C	C	B	A	B	D	B	B
Approach Vol, veh/h		1182			993			37				305
Approach Delay, s/veh		27.9			33.3			19.4				29.0
Approach LOS		C			C			B				C
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	10.9	26.1	6.4	31.6		37.0	13.6	24.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	19.5	5.0	25.0		31.5	9.5	20.5				
Max Q Clear Time (g_c+I1), s	7.0	2.9	3.0	20.3		7.4	9.4	18.9				
Green Ext Time (p_c), s	0.0	0.1	0.0	2.5		0.6	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay				30.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	832	11	20	789	111	9	3	18	86	1	147
Future Volume (veh/h)	145	832	11	20	789	111	9	3	18	86	1	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	904	12	22	858	121	10	3	20	93	1	160
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	1280	17	44	964	430	384	104	467	119	796	675
Arrive On Green	0.11	0.36	0.36	0.02	0.27	0.27	0.29	0.29	0.29	0.07	0.43	0.43
Sat Flow, veh/h	1781	3591	48	1781	3554	1585	994	353	1585	1781	1870	1585
Grp Volume(v), veh/h	158	447	469	22	858	121	13	0	20	93	1	160
Grp Sat Flow(s),veh/h/ln	1781	1777	1862	1781	1777	1585	1347	0	1585	1781	1870	1585
Q Serve(g_s), s	6.1	15.2	15.2	0.9	16.2	4.2	0.0	0.0	0.6	3.6	0.0	4.5
Cycle Q Clear(g_c), s	6.1	15.2	15.2	0.9	16.2	4.2	0.3	0.0	0.6	3.6	0.0	4.5
Prop In Lane	1.00		0.03	1.00		1.00	0.77		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	633	664	44	964	430	488	0	467	119	796	675
V/C Ratio(X)	0.81	0.71	0.71	0.50	0.89	0.28	0.03	0.00	0.04	0.78	0.00	0.24
Avail Cap(c_a), veh/h	216	633	664	127	990	442	488	0	467	140	796	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.57	0.57	0.57	0.82	0.82	0.82	1.00	0.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	30.4	19.4	19.4	33.7	24.5	20.1	17.5	0.0	17.6	32.2	11.5	12.8
Incr Delay (d2), s/veh	11.1	2.1	2.0	6.9	8.4	0.3	0.1	0.0	0.2	20.5	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.8	6.1	0.4	7.2	1.5	0.2	0.0	0.2	2.1	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.5	21.4	21.3	40.6	32.9	20.4	17.6	0.0	17.8	52.6	11.5	13.6
LnGrp LOS	D	C	C	D	C	C	B	A	B	D	B	B
Approach Vol, veh/h		1074			1001			33			254	
Approach Delay, s/veh		24.4			31.6			17.7			27.9	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	9.2	25.1	6.2	29.5		34.3	12.2	23.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	18.5	5.0	23.0		28.5	8.5	19.5				
Max Q Clear Time (g_c+I1), s	5.6	2.6	2.9	17.2		6.5	8.1	18.2				
Green Ext Time (p_c), s	0.0	0.1	0.0	2.7		0.5	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				27.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑↑		↘	↑↑	
Traffic Volume (veh/h)	147	708	121	112	665	41	109	200	102	64	169	87
Future Volume (veh/h)	147	708	121	112	665	41	109	200	102	64	169	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	160	770	132	122	723	45	118	217	111	70	184	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	1001	447	156	909	406	990	935	461	479	934	462
Arrive On Green	0.11	0.28	0.28	0.09	0.26	0.26	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2134	2307	1136	1052	2304	1138
Grp Volume(v), veh/h	160	770	132	122	723	45	118	165	163	70	140	139
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1067	1777	1666	1052	1777	1665
Q Serve(g_s), s	5.2	11.9	3.9	4.0	11.4	1.3	2.3	3.7	3.9	2.8	3.1	3.2
Cycle Q Clear(g_c), s	5.2	11.9	3.9	4.0	11.4	1.3	5.5	3.7	3.9	6.7	3.1	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		0.68
Lane Grp Cap(c), veh/h	203	1001	447	156	909	406	990	720	675	479	720	675
V/C Ratio(X)	0.79	0.77	0.30	0.78	0.80	0.11	0.12	0.23	0.24	0.15	0.19	0.21
Avail Cap(c_a), veh/h	282	1185	528	223	1066	476	990	720	675	479	720	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	19.8	16.9	26.8	20.9	17.1	13.4	11.7	11.8	14.0	11.5	11.6
Incr Delay (d2), s/veh	6.7	1.8	0.2	10.7	3.7	0.1	0.2	0.7	0.8	0.6	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.5	1.3	2.0	4.6	0.4	0.5	1.3	1.3	0.7	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	21.5	17.1	37.5	24.5	17.2	13.6	12.4	12.6	14.6	12.1	12.3
LnGrp LOS	C	C	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		1062			890			446			349	
Approach Delay, s/veh		22.7			25.9			12.8			12.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.8	9.8	21.4		28.8	11.3	19.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	7.5	20.0		19.0	9.5	18.0				
Max Q Clear Time (g_c+I1), s		7.5	6.0	13.9		8.7	7.2	13.4				
Green Ext Time (p_c), s		1.8	0.0	2.7		1.3	0.1	1.9				
Intersection Summary												
HCM 6th Ctrl Delay				20.8								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑↑		↘	↑↑	
Traffic Volume (veh/h)	125	716	103	118	644	49	84	177	98	54	163	73
Future Volume (veh/h)	125	716	103	118	644	49	84	177	98	54	163	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	136	778	112	128	700	53	91	192	107	59	177	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	965	431	164	946	422	1030	921	491	501	996	427
Arrive On Green	0.10	0.27	0.27	0.09	0.27	0.27	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2180	2239	1193	1080	2422	1038
Grp Volume(v), veh/h	136	778	112	128	700	53	91	151	148	59	128	128
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1090	1777	1656	1080	1777	1684
Q Serve(g_s), s	4.5	12.2	3.3	4.2	10.8	1.5	1.7	3.3	3.5	2.2	2.7	2.9
Cycle Q Clear(g_c), s	4.5	12.2	3.3	4.2	10.8	1.5	4.6	3.3	3.5	5.7	2.7	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.72	1.00		0.62
Lane Grp Cap(c), veh/h	174	965	431	164	946	422	1030	731	681	501	731	692
V/C Ratio(X)	0.78	0.81	0.26	0.78	0.74	0.13	0.09	0.21	0.22	0.12	0.18	0.19
Avail Cap(c_a), veh/h	252	1096	489	252	1096	489	1030	731	681	501	731	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	20.4	17.1	26.6	20.1	16.7	12.7	11.4	11.4	13.3	11.2	11.3
Incr Delay (d2), s/veh	7.0	3.0	0.2	8.1	2.3	0.1	0.2	0.6	0.7	0.5	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	4.8	1.1	2.0	4.2	0.5	0.4	1.2	1.2	0.5	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	23.4	17.4	34.8	22.4	16.8	12.9	12.0	12.2	13.8	11.7	11.8
LnGrp LOS	C	C	B	C	C	B	B	B	B	B	B	B
Approach Vol, veh/h		1026			881			390			315	
Approach Delay, s/veh		24.0			23.9			12.3			12.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.2	10.0	20.8		29.2	10.4	20.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	8.5	18.5		19.5	8.5	18.5				
Max Q Clear Time (g_c+I1), s		6.6	6.2	14.2		7.7	6.5	12.8				
Green Ext Time (p_c), s		1.7	0.1	2.0		1.2	0.1	2.2				
Intersection Summary												
HCM 6th Ctrl Delay				20.8								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	687	147	128	628	161	150	271	94	147	309	49
Future Volume (veh/h)	34	687	147	128	628	161	150	271	94	147	309	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	723	155	135	661	169	158	285	99	155	325	52
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	912	407	255	1042	465	265	1054	470	264	1321	205
Arrive On Green	0.04	0.26	0.26	0.07	0.29	0.29	0.08	0.30	0.30	0.08	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4457	693
Grp Volume(v), veh/h	36	723	155	135	661	169	158	285	99	155	246	131
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1746
Q Serve(g_s), s	1.2	11.5	4.9	2.3	9.8	5.1	2.7	3.7	2.8	2.6	3.3	3.5
Cycle Q Clear(g_c), s	1.2	11.5	4.9	2.3	9.8	5.1	2.7	3.7	2.8	2.6	3.3	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	67	912	407	255	1042	465	265	1054	470	264	1009	517
V/C Ratio(X)	0.54	0.79	0.38	0.53	0.63	0.36	0.60	0.27	0.21	0.59	0.24	0.25
Avail Cap(c_a), veh/h	147	1053	470	285	1053	470	285	1054	470	285	1009	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	21.1	18.6	27.1	18.6	17.0	27.1	16.3	16.0	27.1	16.2	16.3
Incr Delay (d2), s/veh	6.6	3.7	0.6	1.7	1.2	0.5	3.0	0.6	1.0	2.7	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.6	1.6	0.9	3.7	1.7	1.1	1.4	1.0	1.1	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	24.7	19.2	28.8	19.9	17.5	30.1	17.0	17.0	29.9	16.8	17.4
LnGrp LOS	D	C	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		914			965			542			532	
Approach Delay, s/veh		24.2			20.7			20.8			20.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	22.5	9.0	20.1	9.2	22.5	6.8	22.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.6	5.7	4.3	13.5	4.7	5.5	3.2	11.8				
Green Ext Time (p_c), s	0.0	1.5	0.0	2.1	0.0	1.7	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay			21.8									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↑↑	↗	↵↗	↑↑	↗	↵↗	↑↑	↗	↵↗	↑↑↗	
Traffic Volume (veh/h)	46	708	114	110	650	134	122	222	93	104	283	34
Future Volume (veh/h)	46	708	114	110	650	134	122	222	93	104	283	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	745	120	116	684	141	128	234	98	109	298	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	928	414	245	1017	454	252	1070	477	240	1377	163
Arrive On Green	0.05	0.26	0.26	0.07	0.29	0.29	0.07	0.30	0.30	0.07	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4630	546
Grp Volume(v), veh/h	48	745	120	116	684	141	128	234	98	109	217	117
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1772
Q Serve(g_s), s	1.6	11.9	3.7	2.0	10.3	4.2	2.2	3.0	2.8	1.8	2.9	3.0
Cycle Q Clear(g_c), s	1.6	11.9	3.7	2.0	10.3	4.2	2.2	3.0	2.8	1.8	2.9	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	82	928	414	245	1017	454	252	1070	477	240	1013	527
V/C Ratio(X)	0.59	0.80	0.29	0.47	0.67	0.31	0.51	0.22	0.21	0.45	0.21	0.22
Avail Cap(c_a), veh/h	147	1057	472	286	1057	472	286	1070	477	286	1013	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	20.9	17.9	27.0	19.1	16.9	27.0	15.8	15.8	27.1	15.9	16.0
Incr Delay (d2), s/veh	6.6	4.1	0.4	1.4	1.6	0.4	1.6	0.5	1.0	1.3	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.8	1.2	0.8	3.9	1.4	0.9	1.1	1.0	0.7	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	25.0	18.3	28.4	20.7	17.3	28.6	16.3	16.7	28.4	16.4	17.0
LnGrp LOS	C	C	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		913			941			460			443	
Approach Delay, s/veh		24.6			21.1			19.8			19.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	22.7	8.8	20.3	8.9	22.5	7.3	21.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.8	5.0	4.0	13.9	4.2	5.0	3.6	12.3				
Green Ext Time (p_c), s	0.0	1.3	0.0	1.9	0.0	1.5	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			21.8									
HCM 6th LOS			C									

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	805	172	310	772	0	172	0	355	1	0	0
Future Volume (vph)	15	805	172	310	772	0	172	0	355	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		0.95	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1457	1504		3362	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1457	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	847	181	326	813	0	181	0	374	1	0	0
RTOR Reduction (vph)	0	0	101	0	0	0	0	129	139	0	0	0
Lane Group Flow (vph)	16	847	80	326	813	0	163	69	55	0	1	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	412	425		55	
v/s Ratio Prot	0.01	c0.24		c0.09	c0.23		c0.10	0.05				
v/s Ratio Perm			0.05						0.04		c0.00	
v/c Ratio	0.67	0.70	0.15	1.22	0.57		0.34	0.17	0.13		0.02	
Uniform Delay, d1	31.4	18.2	14.6	29.5	14.6		18.2	17.3	17.1		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	52.8	1.8	0.1	126.5	0.5		2.0	0.9	0.6		0.1	
Delay (s)	84.2	20.0	14.7	156.0	15.2		20.2	18.2	17.7		31.1	
Level of Service	F	B	B	F	B		C	B	B		C	
Approach Delay (s)		20.1			55.5			18.6			31.1	
Approach LOS		C			E			B			C	

Intersection Summary

HCM 2000 Control Delay	34.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	794	179	296	728	0	166	0	337	0	0	2
Future Volume (vph)	14	794	179	296	728	0	166	0	337	0	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1458	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1458	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	836	188	312	766	0	175	0	355	0	0	2
RTOR Reduction (vph)	0	0	107	0	0	0	0	122	133	0	2	0
Lane Group Flow (vph)	15	836	81	312	766	0	157	66	52	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	412	425		47	
v/s Ratio Prot	0.01	c0.24		c0.09	c0.22		c0.09	0.05			c0.00	
v/s Ratio Perm			0.05						0.03			
v/c Ratio	0.62	0.69	0.15	1.16	0.53		0.33	0.16	0.12		0.00	
Uniform Delay, d1	31.4	18.1	14.6	29.5	14.4		18.2	17.2	17.1		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	41.4	1.7	0.1	106.8	0.4		1.9	0.8	0.6		0.0	
Delay (s)	72.7	19.8	14.7	136.3	14.8		20.0	18.1	17.6		31.0	
Level of Service	E	B	B	F	B		C	B	B		C	
Approach Delay (s)		19.7			50.0			18.5			31.0	
Approach LOS		B			D			B			C	
Intersection Summary												
HCM 2000 Control Delay			31.8				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			64.0				Sum of lost time (s)				18.0	
Intersection Capacity Utilization			56.3%				ICU Level of Service				B	
Analysis Period (min)			15									

c Critical Lane Group

HCM 6th TWSC
13: 6th St & Indian Hill Blvd

03/19/2024

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	9	9	24	10	45	3	568	24	28	529	6
Future Vol, veh/h	0	9	9	24	10	45	3	568	24	28	529	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	10	26	11	49	3	617	26	30	575	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1305	1288	579	1285	1278	630	582	0	0	643	0	0
Stage 1	639	639	-	636	636	-	-	-	-	-	-	-
Stage 2	666	649	-	649	642	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	137	164	515	142	166	482	992	-	-	942	-	-
Stage 1	464	470	-	466	472	-	-	-	-	-	-	-
Stage 2	449	466	-	458	469	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	114	158	515	129	160	482	992	-	-	942	-	-
Mov Cap-2 Maneuver	114	158	-	129	160	-	-	-	-	-	-	-
Stage 1	463	455	-	465	471	-	-	-	-	-	-	-
Stage 2	393	465	-	426	454	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.2		29.5		0		0.4	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	992	-	-	242	231	942	-
HCM Lane V/C Ratio	0.003	-	-	0.081	0.372	0.032	-
HCM Control Delay (s)	8.6	-	-	21.2	29.5	8.9	-
HCM Lane LOS	A	-	-	C	D	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	1.6	0.1	-

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	3	6	3	27	10	55	6	617	23	18	512	0
Future Vol, veh/h	3	6	3	27	10	55	6	617	23	18	512	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	7	3	29	11	60	7	671	25	20	557	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1330	1307	557	1300	1295	684	557	0	0	696	0	0
Stage 1	597	597	-	698	698	-	-	-	-	-	-	-
Stage 2	733	710	-	602	597	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	132	160	530	138	162	449	1014	-	-	900	-	-
Stage 1	490	491	-	431	442	-	-	-	-	-	-	-
Stage 2	412	437	-	486	491	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	106	155	530	130	157	449	1014	-	-	900	-	-
Mov Cap-2 Maneuver	106	155	-	130	157	-	-	-	-	-	-	-
Stage 1	487	480	-	428	439	-	-	-	-	-	-	-
Stage 2	346	434	-	466	480	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	28.7		31.4		0.1		0.3	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1014	-	-	165	234	900	-
HCM Lane V/C Ratio	0.006	-	-	0.079	0.427	0.022	-
HCM Control Delay (s)	8.6	-	-	28.7	31.4	9.1	-
HCM Lane LOS	A	-	-	D	D	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	2	0.1	-

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	95	4	74	111	18	7	180	75	20	179	9
Future Vol, veh/h	10	95	4	74	111	18	7	180	75	20	179	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	103	4	80	121	20	8	196	82	22	195	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10	11.3	11.5	11
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %		3%	9%	36%
Vol Thru, %		69%	87%	55%
Vol Right, %		29%	4%	9%
Sign Control		Stop	Stop	Stop
Traffic Vol by Lane		262	109	203
LT Vol		7	10	74
Through Vol		180	95	111
RT Vol		75	4	18
Lane Flow Rate		285	118	221
Geometry Grp		1	1	1
Degree of Util (X)		0.402	0.187	0.337
Departure Headway (Hd)		5.087	5.669	5.505
Convergence, Y/N		Yes	Yes	Yes
Cap		706	631	653
Service Time		3.124	3.713	3.544
HCM Lane V/C Ratio		0.404	0.187	0.338
HCM Control Delay		11.5	10	11.3
HCM Lane LOS		B	A	B
HCM 95th-tile Q		1.9	0.7	1.5

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	3	67	11	81	112	20	32	178	65	16	141	16
Future Vol, veh/h	3	67	11	81	112	20	32	178	65	16	141	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	73	12	88	122	22	35	193	71	17	153	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	11.2	11.6	10.2
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	4%	38%	9%
Vol Thru, %	65%	83%	53%	82%
Vol Right, %	24%	14%	9%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	275	81	213	173
LT Vol	32	3	81	16
Through Vol	178	67	112	141
RT Vol	65	11	20	16
Lane Flow Rate	299	88	232	188
Geometry Grp	1	1	1	1
Degree of Util (X)	0.417	0.135	0.345	0.273
Departure Headway (Hd)	5.02	5.521	5.363	5.227
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	720	649	671	688
Service Time	3.02	3.562	3.396	3.259
HCM Lane V/C Ratio	0.415	0.136	0.346	0.273
HCM Control Delay	11.6	9.4	11.2	10.2
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	2.1	0.5	1.5	1.1

Intersection

Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	175	17	27	200	5	19	0	9	2	5	0
Future Vol, veh/h	3	175	17	27	200	5	19	0	9	2	5	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	190	18	29	217	5	21	0	10	2	5	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	9	8.1	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	68%	2%	12%	29%
Vol Thru, %	0%	90%	86%	71%
Vol Right, %	32%	9%	2%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	195	232	7
LT Vol	19	3	27	2
Through Vol	0	175	200	5
RT Vol	9	17	5	0
Lane Flow Rate	30	212	252	8
Geometry Grp	1	1	1	1
Degree of Util (X)	0.041	0.244	0.292	0.011
Departure Headway (Hd)	4.889	4.141	4.17	5.038
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	737	852	850	714
Service Time	2.89	2.236	2.255	3.04
HCM Lane V/C Ratio	0.041	0.249	0.296	0.011
HCM Control Delay	8.1	8.6	9	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1	1.2	0

Intersection

Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	164	18	16	228	4	15	0	11	2	4	3
Future Vol, veh/h	6	164	18	16	228	4	15	0	11	2	4	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	178	20	17	248	4	16	0	12	2	4	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	9.1	8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	3%	6%	22%
Vol Thru, %	0%	87%	92%	44%
Vol Right, %	42%	10%	2%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	188	248	9
LT Vol	15	6	16	2
Through Vol	0	164	228	4
RT Vol	11	18	4	3
Lane Flow Rate	28	204	270	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.038	0.236	0.311	0.013
Departure Headway (Hd)	4.831	4.153	4.158	4.84
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	746	850	855	744
Service Time	2.831	2.248	2.239	2.842
HCM Lane V/C Ratio	0.038	0.24	0.316	0.013
HCM Control Delay	8	8.6	9.1	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.9	1.3	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↘		↗	↖	↗	↗	↕	↘	↗	↖	↘
Traffic Volume (veh/h)	54	131	31	91	136	51	42	306	105	54	295	86
Future Volume (veh/h)	54	131	31	91	136	51	42	306	105	54	295	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	138	33	96	143	54	44	322	111	57	311	91
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	243	199	48	225	237	201	477	890	301	468	954	274
Arrive On Green	0.14	0.14	0.14	0.13	0.13	0.13	0.05	0.34	0.34	0.05	0.35	0.35
Sat Flow, veh/h	1781	1459	349	1781	1870	1585	1781	2606	882	1781	2723	783
Grp Volume(v), veh/h	57	0	171	96	143	54	44	218	215	57	201	201
Grp Sat Flow(s),veh/h/ln	1781	0	1808	1781	1870	1585	1781	1777	1712	1781	1777	1729
Q Serve(g_s), s	1.5	0.0	4.8	2.6	3.8	1.6	0.8	4.8	5.0	1.1	4.4	4.5
Cycle Q Clear(g_c), s	1.5	0.0	4.8	2.6	3.8	1.6	0.8	4.8	5.0	1.1	4.4	4.5
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.52	1.00		0.45
Lane Grp Cap(c), veh/h	243	0	247	225	237	201	477	607	585	468	622	606
V/C Ratio(X)	0.23	0.00	0.69	0.43	0.60	0.27	0.09	0.36	0.37	0.12	0.32	0.33
Avail Cap(c_a), veh/h	608	0	617	608	639	541	566	607	585	541	622	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	21.7	21.2	21.8	20.8	10.3	13.0	13.1	10.2	12.5	12.6
Incr Delay (d2), s/veh	0.5	0.0	3.5	1.3	2.5	0.7	0.1	1.6	1.8	0.1	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.0	1.1	1.7	0.6	0.3	1.8	1.8	0.3	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	0.0	25.2	22.5	24.2	21.5	10.4	14.7	14.8	10.3	13.9	14.1
LnGrp LOS	C	A	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		228			293			477			459	
Approach Delay, s/veh		24.1			23.2			14.4			13.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	22.5		11.7	6.9	23.0		11.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	3.1	7.0		6.8	2.8	6.5		5.8				
Green Ext Time (p_c), s	0.0	1.8		0.7	0.0	1.7		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↕		↖	↗	
Traffic Volume (veh/h)	66	132	40	86	134	42	34	286	89	45	306	67
Future Volume (veh/h)	66	132	40	86	134	42	34	286	89	45	306	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	69	139	42	91	141	44	36	301	94	47	322	71
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	258	200	60	221	232	197	472	916	281	475	1016	221
Arrive On Green	0.14	0.14	0.14	0.12	0.12	0.12	0.04	0.34	0.34	0.05	0.35	0.35
Sat Flow, veh/h	1781	1379	417	1781	1870	1585	1781	2678	821	1781	2902	631
Grp Volume(v), veh/h	69	0	181	91	141	44	36	198	197	47	195	198
Grp Sat Flow(s),veh/h/ln	1781	0	1795	1781	1870	1585	1781	1777	1723	1781	1777	1757
Q Serve(g_s), s	1.8	0.0	5.0	2.5	3.8	1.3	0.7	4.3	4.5	0.9	4.2	4.3
Cycle Q Clear(g_c), s	1.8	0.0	5.0	2.5	3.8	1.3	0.7	4.3	4.5	0.9	4.2	4.3
Prop In Lane	1.00		0.23	1.00		1.00	1.00		0.48	1.00		0.36
Lane Grp Cap(c), veh/h	258	0	260	221	232	197	472	608	589	475	622	615
V/C Ratio(X)	0.27	0.00	0.70	0.41	0.61	0.22	0.08	0.33	0.33	0.10	0.31	0.32
Avail Cap(c_a), veh/h	609	0	614	609	639	542	571	608	589	560	622	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	21.4	21.3	21.8	20.8	10.5	12.8	12.9	10.3	12.5	12.5
Incr Delay (d2), s/veh	0.6	0.0	3.4	1.2	2.5	0.6	0.1	1.4	1.5	0.1	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.0	1.0	1.7	0.5	0.2	1.6	1.6	0.3	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	0.0	24.8	22.5	24.4	21.3	10.5	14.3	14.4	10.4	13.8	13.9
LnGrp LOS	C	A	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		250			276			431			440	
Approach Delay, s/veh		23.6			23.3			14.0			13.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	22.5		12.1	6.5	22.9		11.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.9	6.5		7.0	2.7	6.3		5.8				
Green Ext Time (p_c), s	0.0	1.6		0.8	0.0	1.6		0.9				

Intersection Summary

HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↶↷		↶	↶	↶	↶↷	↶↷↸		↶	↶↷↸	
Traffic Volume (veh/h)	90	160	37	48	146	46	42	349	31	29	520	62
Future Volume (veh/h)	90	160	37	48	146	46	42	349	31	29	520	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	168	39	51	154	48	44	367	33	31	547	65
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	448	102	91	248	210	160	1835	163	63	1730	203
Arrive On Green	0.07	0.16	0.16	0.05	0.13	0.13	0.05	0.38	0.38	0.04	0.37	0.37
Sat Flow, veh/h	1781	2878	652	1781	1870	1585	3456	4775	423	1781	4633	543
Grp Volume(v), veh/h	95	102	105	51	154	48	44	260	140	31	400	212
Grp Sat Flow(s),veh/h/ln	1781	1777	1753	1781	1870	1585	1728	1702	1794	1781	1702	1773
Q Serve(g_s), s	2.5	2.5	2.6	1.3	3.8	1.3	0.6	2.5	2.5	0.8	4.0	4.1
Cycle Q Clear(g_c), s	2.5	2.5	2.6	1.3	3.8	1.3	0.6	2.5	2.5	0.8	4.0	4.1
Prop In Lane	1.00		0.37	1.00		1.00	1.00		0.24	1.00		0.31
Lane Grp Cap(c), veh/h	133	277	273	91	248	210	160	1308	690	63	1271	662
V/C Ratio(X)	0.71	0.37	0.38	0.56	0.62	0.23	0.28	0.20	0.20	0.49	0.31	0.32
Avail Cap(c_a), veh/h	185	663	655	185	698	592	358	1308	690	185	1271	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	18.2	18.3	22.3	19.8	18.7	22.2	9.9	9.9	22.8	10.7	10.7
Incr Delay (d2), s/veh	7.6	0.8	0.9	5.2	2.5	0.5	0.9	0.3	0.7	5.9	0.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.9	0.9	0.6	1.5	0.4	0.2	0.7	0.8	0.4	1.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.4	19.1	19.2	27.6	22.3	19.3	23.1	10.2	10.6	28.7	11.4	12.0
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		302			253			444			643	
Approach Delay, s/veh		22.3			22.8			11.6			12.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	23.0	7.0	12.0	6.7	22.5	8.1	10.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.8	4.5	3.3	4.6	2.6	6.1	4.5	5.8				
Green Ext Time (p_c), s	0.0	1.8	0.0	0.8	0.0	2.8	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			15.6									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

17: Monte Vista Ave & Arrow Rt

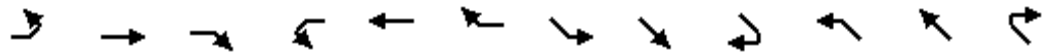
03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖↗	↖↗		↖	↗	↖↗
Traffic Volume (veh/h)	59	176	44	53	151	37	41	340	36	26	481	47
Future Volume (veh/h)	59	176	44	53	151	37	41	340	36	26	481	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	185	46	56	159	39	43	358	38	27	506	49
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	396	96	98	254	215	158	1850	193	56	1801	172
Arrive On Green	0.06	0.14	0.14	0.06	0.14	0.14	0.05	0.39	0.39	0.03	0.38	0.38
Sat Flow, veh/h	1781	2835	688	1781	1870	1585	3456	4697	490	1781	4739	453
Grp Volume(v), veh/h	62	114	117	56	159	39	43	258	138	27	362	193
Grp Sat Flow(s),veh/h/ln	1781	1777	1747	1781	1870	1585	1728	1702	1782	1781	1702	1789
Q Serve(g_s), s	1.6	2.8	2.9	1.5	3.8	1.0	0.6	2.4	2.4	0.7	3.5	3.6
Cycle Q Clear(g_c), s	1.6	2.8	2.9	1.5	3.8	1.0	0.6	2.4	2.4	0.7	3.5	3.6
Prop In Lane	1.00		0.39	1.00		1.00	1.00		0.27	1.00		0.25
Lane Grp Cap(c), veh/h	105	248	244	98	254	215	158	1341	702	56	1293	680
V/C Ratio(X)	0.59	0.46	0.48	0.57	0.63	0.18	0.27	0.19	0.20	0.48	0.28	0.28
Avail Cap(c_a), veh/h	188	675	664	188	711	602	365	1341	702	188	1293	680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	18.7	18.8	21.8	19.3	18.1	21.8	9.4	9.4	22.6	10.2	10.2
Incr Delay (d2), s/veh	5.2	1.3	1.5	5.1	2.5	0.4	0.9	0.3	0.6	6.2	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.0	1.1	0.7	1.5	0.3	0.2	0.7	0.8	0.3	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	20.1	20.3	27.0	21.9	18.5	22.8	9.7	10.1	28.8	10.7	11.3
LnGrp LOS	C	C	C	C	C	B	C	A	B	C	B	B
Approach Vol, veh/h		293			254			439			582	
Approach Delay, s/veh		21.6			22.5			11.1			11.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	23.2	7.1	11.1	6.7	22.5	7.3	10.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.7	4.4	3.5	4.9	2.6	5.6	3.6	5.8				
Green Ext Time (p_c), s	0.0	1.8	0.0	0.9	0.0	2.5	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			15.2									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

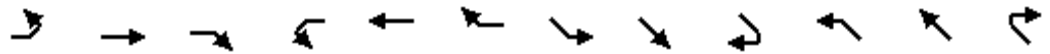
03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	20	24	46	37	24	37	18	533	15	21	532	20
Future Volume (veh/h)	20	24	46	37	24	37	18	533	15	21	532	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	26	50	40	26	40	20	579	16	23	578	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	80	469	108	48	469	42	846	717	47	815	31
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.02	0.45	0.45	0.03	0.46	0.46
Sat Flow, veh/h	19	270	1585	38	161	1585	1781	1870	1585	1781	1790	68
Grp Volume(v), veh/h	48	0	50	66	0	40	20	579	16	23	0	600
Grp Sat Flow(s),veh/h/ln	289	0	1585	199	0	1585	1781	1870	1585	1781	0	1858
Q Serve(g_s), s	0.5	0.0	1.4	0.7	0.0	1.1	0.7	14.7	0.3	0.8	0.0	15.6
Cycle Q Clear(g_c), s	17.8	0.0	1.4	17.8	0.0	1.1	0.7	14.7	0.3	0.8	0.0	15.6
Prop In Lane	0.46		1.00	0.61		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	173	0	469	155	0	469	42	846	717	47	0	846
V/C Ratio(X)	0.28	0.00	0.11	0.42	0.00	0.09	0.48	0.68	0.02	0.49	0.00	0.71
Avail Cap(c_a), veh/h	179	0	476	161	0	476	148	846	717	148	0	846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	0.0	15.3	19.4	0.0	15.2	28.9	13.0	9.1	28.8	0.0	13.1
Incr Delay (d2), s/veh	0.9	0.0	0.1	1.8	0.0	0.1	8.1	4.5	0.1	7.6	0.0	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.5	0.7	0.0	0.4	0.4	6.5	0.1	0.4	0.0	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	0.0	15.4	21.2	0.0	15.3	37.0	17.5	9.1	36.4	0.0	18.1
LnGrp LOS	B	A	B	C	A	B	D	B	A	D	A	B
Approach Vol, veh/h		98			106			615				623
Approach Delay, s/veh		16.7			19.0			17.9				18.8
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	31.7		22.4	6.1	31.5		22.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.7	17.6		19.8	2.8	16.7		19.8				
Green Ext Time (p_c), s	0.0	2.1		0.0	0.0	2.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			18.3									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	17	15	38	25	24	28	14	446	12	21	561	17
Future Volume (veh/h)	17	15	38	25	24	28	14	446	12	21	561	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	16	41	27	26	30	15	485	13	23	610	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	71	181	112	75	181	33	1186	1005	47	1161	34
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.02	0.63	0.63	0.03	0.64	0.64
Sat Flow, veh/h	190	617	1585	186	658	1585	1781	1870	1585	1781	1807	53
Grp Volume(v), veh/h	34	0	41	53	0	30	15	485	13	23	0	628
Grp Sat Flow(s),veh/h/ln	806	0	1585	844	0	1585	1781	1870	1585	1781	0	1861
Q Serve(g_s), s	0.1	0.0	1.4	0.1	0.0	1.0	0.5	7.7	0.2	0.8	0.0	10.9
Cycle Q Clear(g_c), s	5.4	0.0	1.4	5.4	0.0	1.0	0.5	7.7	0.2	0.8	0.0	10.9
Prop In Lane	0.53		1.00	0.51		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	184	0	181	187	0	181	33	1186	1005	47	0	1195
V/C Ratio(X)	0.18	0.00	0.23	0.28	0.00	0.17	0.46	0.41	0.01	0.49	0.00	0.53
Avail Cap(c_a), veh/h	472	0	476	477	0	476	148	1186	1005	148	0	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.1	0.0	24.2	24.3	0.0	24.0	29.1	5.4	4.1	28.8	0.0	5.8
Incr Delay (d2), s/veh	0.5	0.0	0.6	0.8	0.0	0.4	9.6	1.0	0.0	7.6	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5	0.7	0.0	0.4	0.3	2.6	0.1	0.4	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	0.0	24.8	25.1	0.0	24.4	38.7	6.5	4.1	36.4	0.0	7.5
LnGrp LOS	C	A	C	C	A	C	D	A	A	D	A	A
Approach Vol, veh/h		75			83			513			651	
Approach Delay, s/veh		24.7			24.9			7.4			8.5	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	42.9		11.4	6.1	42.5		11.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.5	12.9		7.4	2.8	9.7		7.4				
Green Ext Time (p_c), s	0.0	3.3		0.1	0.0	2.8		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			10.0									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	41	85	131	51	105	116	487	178	37	471	89
Future Volume (veh/h)	33	41	85	131	51	105	116	487	178	37	471	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	45	92	142	55	114	126	529	193	40	512	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	332	281	317	96	200	482	1042	883	472	802	152
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.07	0.56	0.56	0.04	0.52	0.52
Sat Flow, veh/h	1216	1870	1585	1252	543	1125	1781	1870	1585	1781	1529	290
Grp Volume(v), veh/h	36	45	92	142	0	169	126	529	193	40	0	609
Grp Sat Flow(s),veh/h/ln	1216	1870	1585	1252	0	1668	1781	1870	1585	1781	0	1818
Q Serve(g_s), s	1.7	1.2	3.0	6.5	0.0	5.6	1.8	10.5	3.7	0.6	0.0	14.4
Cycle Q Clear(g_c), s	7.2	1.2	3.0	7.7	0.0	5.6	1.8	10.5	3.7	0.6	0.0	14.4
Prop In Lane	1.00		1.00	1.00		0.67	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	223	332	281	317	0	296	482	1042	883	472	0	954
V/C Ratio(X)	0.16	0.14	0.33	0.45	0.00	0.57	0.26	0.51	0.22	0.08	0.00	0.64
Avail Cap(c_a), veh/h	372	561	476	470	0	500	503	1042	883	548	0	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.77	0.77	0.77	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	20.8	21.5	24.0	0.0	22.6	7.3	8.2	6.7	6.4	0.0	10.2
Incr Delay (d2), s/veh	0.3	0.2	0.7	1.0	0.0	1.7	0.2	1.4	0.4	0.1	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.5	1.1	1.9	0.0	2.2	0.5	3.7	1.1	0.2	0.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	21.0	22.2	25.0	0.0	24.3	7.5	9.6	7.1	6.5	0.0	13.5
LnGrp LOS	C	C	C	C	A	C	A	A	A	A	A	B
Approach Vol, veh/h		173			311			848			649	
Approach Delay, s/veh		22.7			24.6			8.7			13.0	
Approach LOS		C			C			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	37.9		15.1	8.9	36.0		15.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	2.6	12.5		9.2	3.8	16.4		9.7				
Green Ext Time (p_c), s	0.0	3.2		0.4	0.0	2.4		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				13.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	44	120	111	69	69	147	475	127	34	404	66
Future Volume (veh/h)	52	44	120	111	69	69	147	475	127	34	404	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	48	130	121	75	75	160	516	138	37	439	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	227	311	263	294	143	143	568	1067	904	505	833	137
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.08	0.57	0.57	0.04	0.53	0.53
Sat Flow, veh/h	1237	1870	1585	1206	858	858	1781	1870	1585	1781	1567	257
Grp Volume(v), veh/h	57	48	130	121	0	150	160	516	138	37	0	511
Grp Sat Flow(s),veh/h/ln	1237	1870	1585	1206	0	1716	1781	1870	1585	1781	0	1824
Q Serve(g_s), s	2.6	1.3	4.5	5.7	0.0	4.8	2.3	9.8	2.5	0.5	0.0	10.9
Cycle Q Clear(g_c), s	7.4	1.3	4.5	7.0	0.0	4.8	2.3	9.8	2.5	0.5	0.0	10.9
Prop In Lane	1.00		1.00	1.00		0.50	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	227	311	263	294	0	285	568	1067	904	505	0	969
V/C Ratio(X)	0.25	0.15	0.49	0.41	0.00	0.53	0.28	0.48	0.15	0.07	0.00	0.53
Avail Cap(c_a), veh/h	392	561	476	455	0	515	593	1067	904	585	0	969
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.86	0.86	0.86	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	21.4	22.7	24.4	0.0	22.9	6.3	7.6	6.1	6.2	0.0	9.2
Incr Delay (d2), s/veh	0.6	0.2	1.4	0.9	0.0	1.5	0.2	1.4	0.3	0.1	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.6	1.7	1.6	0.0	2.0	0.7	3.4	0.7	0.2	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	21.6	24.2	25.3	0.0	24.4	6.5	9.0	6.4	6.2	0.0	11.2
LnGrp LOS	C	C	C	C	A	C	A	A	A	A	A	B
Approach Vol, veh/h		235			271			814			548	
Approach Delay, s/veh		24.3			24.8			8.1			10.9	
Approach LOS		C			C			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	38.7		14.5	9.2	36.4		14.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.5	23.0		18.0				
Max Q Clear Time (g_c+I1), s	2.5	11.8		9.4	4.3	12.9		9.0				
Green Ext Time (p_c), s	0.0	3.0		0.5	0.0	2.5		0.9				

Intersection Summary

HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑	↘	↗	↑	↘		↕			↕	
Traffic Vol, veh/h	33	74	55	14	86	42	60	140	33	30	146	28
Future Vol, veh/h	33	74	55	14	86	42	60	140	33	30	146	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	80	60	15	93	46	65	152	36	33	159	30
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	9.6	9.7	12.4	11.7
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	26%	100%	0%	0%	100%	0%	0%	15%
Vol Thru, %	60%	0%	100%	0%	0%	100%	0%	72%
Vol Right, %	14%	0%	0%	100%	0%	0%	100%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	233	33	74	55	14	86	42	204
LT Vol	60	33	0	0	14	0	0	30
Through Vol	140	0	74	0	0	86	0	146
RT Vol	33	0	0	55	0	0	42	28
Lane Flow Rate	253	36	80	60	15	93	46	222
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.407	0.067	0.139	0.091	0.029	0.162	0.07	0.356
Departure Headway (Hd)	5.782	6.723	6.213	5.498	6.759	6.248	5.533	5.776
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	623	533	577	651	530	574	647	623
Service Time	3.512	4.464	3.953	3.237	4.499	3.988	3.272	3.507
HCM Lane V/C Ratio	0.406	0.068	0.139	0.092	0.028	0.162	0.071	0.356
HCM Control Delay	12.4	9.9	10	8.8	9.7	10.2	8.7	11.7
HCM Lane LOS	B	A	A	A	A	B	A	B
HCM 95th-tile Q	2	0.2	0.5	0.3	0.1	0.6	0.2	1.6

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	45	91	65	27	126	56	49	151	23	44	161	41
Future Vol, veh/h	45	91	65	27	126	56	49	151	23	44	161	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	99	71	29	137	61	53	164	25	48	175	45
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10.3	10.7	13.6	14.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	22%	100%	0%	0%	100%	0%	0%	18%
Vol Thru, %	68%	0%	100%	0%	0%	100%	0%	65%
Vol Right, %	10%	0%	0%	100%	0%	0%	100%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	45	91	65	27	126	56	246
LT Vol	49	45	0	0	27	0	0	44
Through Vol	151	0	91	0	0	126	0	161
RT Vol	23	0	0	65	0	0	56	41
Lane Flow Rate	242	49	99	71	29	137	61	267
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.422	0.096	0.18	0.115	0.058	0.249	0.098	0.458
Departure Headway (Hd)	6.264	7.076	6.563	5.845	7.056	6.543	5.825	6.161
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	572	504	544	610	505	546	612	583
Service Time	4.024	4.848	4.335	3.616	4.828	4.315	3.596	3.92
HCM Lane V/C Ratio	0.423	0.097	0.182	0.116	0.057	0.251	0.1	0.458
HCM Control Delay	13.6	10.6	10.8	9.4	10.3	11.5	9.2	14.1
HCM Lane LOS	B	B	B	A	B	B	A	B
HCM 95th-tile Q	2.1	0.3	0.7	0.4	0.2	1	0.3	2.4

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	2	74	4	1	5	58	374	4	2	323	94
Future Volume (veh/h)	86	2	74	4	1	5	58	374	4	2	323	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	2	80	4	1	5	63	407	4	2	351	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	153	130	18	5	20	742	2569	25	762	2533	1130
Arrive On Green	0.08	0.08	0.08	0.01	0.01	0.01	0.71	0.71	0.71	0.71	0.71	0.71
Sat Flow, veh/h	1781	1870	1585	1439	360	1585	938	3605	35	975	3554	1585
Grp Volume(v), veh/h	93	2	80	5	0	5	63	200	211	2	351	102
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1798	0	1585	938	1777	1864	975	1777	1585
Q Serve(g_s), s	3.5	0.1	3.4	0.2	0.0	0.2	1.6	2.6	2.6	0.0	2.2	1.4
Cycle Q Clear(g_c), s	3.5	0.1	3.4	0.2	0.0	0.2	3.8	2.6	2.6	2.6	2.2	1.4
Prop In Lane	1.00		1.00	0.80		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	146	153	130	23	0	20	742	1266	1328	762	2533	1130
V/C Ratio(X)	0.64	0.01	0.62	0.22	0.00	0.25	0.08	0.16	0.16	0.00	0.14	0.09
Avail Cap(c_a), veh/h	471	494	419	462	0	408	742	1266	1328	762	2533	1130
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	31.1	29.5	31.1	34.2	0.0	34.2	3.8	3.3	3.3	3.7	3.2	3.1
Incr Delay (d2), s/veh	4.6	0.0	4.7	4.8	0.0	6.4	0.2	0.3	0.3	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	1.4	0.1	0.0	0.1	0.2	0.6	0.6	0.0	0.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	29.6	35.8	39.0	0.0	40.6	4.0	3.5	3.5	3.7	3.3	3.2
LnGrp LOS	D	C	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		175			10			474			455	
Approach Delay, s/veh		35.7			39.8			3.6			3.3	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.4		10.2		54.4		5.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.5		20.0		18.0				
Max Q Clear Time (g_c+I1), s		5.8		5.5		4.6		2.2				
Green Ext Time (p_c), s		2.2		0.4		2.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			8.8									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	3	78	3	0	5	55	320	1	5	361	79
Future Volume (veh/h)	83	3	78	3	0	5	55	320	1	5	361	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	3	85	3	0	5	60	348	1	5	392	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	156	132	18	0	16	724	2593	7	808	2535	1131
Arrive On Green	0.08	0.08	0.08	0.01	0.00	0.01	0.71	0.71	0.71	0.71	0.71	0.71
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	916	3635	10	1032	3554	1585
Grp Volume(v), veh/h	90	3	85	3	0	5	60	170	179	5	392	86
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	916	1777	1868	1032	1777	1585
Q Serve(g_s), s	3.4	0.1	3.6	0.1	0.0	0.2	1.6	2.1	2.1	0.1	2.5	1.2
Cycle Q Clear(g_c), s	3.4	0.1	3.6	0.1	0.0	0.2	4.1	2.1	2.1	2.2	2.5	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	149	156	132	18	0	16	724	1268	1333	808	2535	1131
V/C Ratio(X)	0.61	0.02	0.64	0.16	0.00	0.31	0.08	0.13	0.13	0.01	0.15	0.08
Avail Cap(c_a), veh/h	471	494	419	458	0	408	724	1268	1333	808	2535	1131
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	31.0	29.4	31.1	34.3	0.0	34.4	3.9	3.2	3.2	3.5	3.2	3.0
Incr Delay (d2), s/veh	3.9	0.0	5.1	4.1	0.0	10.2	0.2	0.2	0.2	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.5	0.1	0.0	0.1	0.2	0.5	0.5	0.0	0.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	29.5	36.2	38.4	0.0	44.6	4.1	3.4	3.4	3.5	3.4	3.2
LnGrp LOS	C	C	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		178			8			409			483	
Approach Delay, s/veh		35.4			42.3			3.5			3.3	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.4		10.3		54.4		5.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.5		20.0		18.0				
Max Q Clear Time (g_c+I1), s		6.1		5.6		4.5		2.2				
Green Ext Time (p_c), s		1.8		0.4		2.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			9.0									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 22: Arrow Hwy & Indian Hill Blvd

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	103	567	167	160	366	61	113	564	364	134	472	64
Future Volume (veh/h)	103	567	167	160	366	61	113	564	364	134	472	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	616	182	174	398	66	123	613	396	146	513	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	782	349	213	922	411	150	1087	485	173	1002	136
Arrive On Green	0.08	0.22	0.22	0.12	0.26	0.26	0.08	0.31	0.31	0.10	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3143	427
Grp Volume(v), veh/h	112	616	182	174	398	66	123	613	396	146	289	294
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1793
Q Serve(g_s), s	4.3	11.4	7.1	6.7	6.5	2.3	4.8	10.1	16.2	5.6	9.3	9.3
Cycle Q Clear(g_c), s	4.3	11.4	7.1	6.7	6.5	2.3	4.8	10.1	16.2	5.6	9.3	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	143	782	349	213	922	411	150	1087	485	173	566	572
V/C Ratio(X)	0.78	0.79	0.52	0.82	0.43	0.16	0.82	0.56	0.82	0.84	0.51	0.51
Avail Cap(c_a), veh/h	181	914	408	216	985	439	150	1087	485	173	566	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	31.6	25.7	24.0	30.1	21.6	20.0	31.5	20.4	22.5	31.1	19.4	19.4
Incr Delay (d2), s/veh	15.8	4.0	1.2	19.4	0.3	0.2	28.8	2.1	14.1	24.5	2.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.0	2.6	3.9	2.6	0.8	3.2	4.2	7.5	3.5	4.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	29.7	25.3	49.4	21.9	20.2	60.3	22.5	36.6	55.6	22.0	22.0
LnGrp LOS	D	C	C	D	C	C	E	C	D	E	C	C
Approach Vol, veh/h		910			638			1132			729	
Approach Delay, s/veh		31.0			29.2			31.5			28.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	25.9	12.9	19.9	10.4	26.8	10.1	22.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.8	18.7	8.5	18.0	5.9	19.6	7.1	19.4				
Max Q Clear Time (g_c+I1), s	7.6	18.2	8.7	13.4	6.8	11.3	6.3	8.5				
Green Ext Time (p_c), s	0.0	0.3	0.0	2.0	0.0	2.3	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			30.4									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 22: Arrow Hwy & Indian Hill Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	96	947	161	145	456	76	143	466	438	131	420	63
Future Volume (veh/h)	96	947	161	145	456	76	143	466	438	131	420	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	1029	175	158	496	83	155	507	476	142	457	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	1133	505	188	1244	555	188	987	440	174	837	124
Arrive On Green	0.07	0.32	0.32	0.21	0.70	0.70	0.11	0.28	0.28	0.10	0.27	0.27
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3105	460
Grp Volume(v), veh/h	104	1029	175	158	496	83	155	507	476	142	260	265
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1788
Q Serve(g_s), s	5.2	25.0	7.6	7.7	5.2	1.6	7.7	10.8	25.0	7.0	11.3	11.4
Cycle Q Clear(g_c), s	5.2	25.0	7.6	7.7	5.2	1.6	7.7	10.8	25.0	7.0	11.3	11.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	133	1133	505	188	1244	555	188	987	440	174	479	482
V/C Ratio(X)	0.78	0.91	0.35	0.84	0.40	0.15	0.82	0.51	1.08	0.82	0.54	0.55
Avail Cap(c_a), veh/h	234	1165	520	208	1244	555	220	987	440	188	479	482
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	40.9	29.4	23.5	34.8	9.6	9.0	39.4	27.4	32.5	39.8	28.1	28.2
Incr Delay (d2), s/veh	9.6	10.3	0.4	21.7	0.2	0.1	19.2	1.9	66.4	20.0	3.9	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	11.8	2.8	4.1	1.7	0.5	4.3	4.7	17.4	4.0	5.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	39.6	23.9	56.5	9.8	9.1	58.6	29.3	98.9	59.9	32.0	32.1
LnGrp LOS	D	D	C	E	A	A	E	C	F	E	C	C
Approach Vol, veh/h		1308			737			1138			667	
Approach Delay, s/veh		38.4			19.7			62.4			38.0	
Approach LOS		D			B			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	29.5	14.0	33.2	14.0	28.8	11.2	36.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	22.5	10.5	29.5	11.1	20.9	11.8	28.2				
Max Q Clear Time (g_c+I1), s	9.0	27.0	9.7	27.0	9.7	13.4	7.2	7.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.7	0.1	1.9	0.1	3.6				
Intersection Summary												
HCM 6th Ctrl Delay			41.8									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	927	28	14	491	79	23	53	26	80	59	82
Future Volume (veh/h)	74	927	28	14	491	79	23	53	26	80	59	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	1008	30	15	534	86	25	58	28	87	64	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	1271	38	217	1107	178	209	445	188	753	821	696
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	804	3523	105	544	3067	492	252	1014	427	1311	1870	1585
Grp Volume(v), veh/h	80	508	530	15	309	311	111	0	0	87	64	89
Grp Sat Flow(s),veh/h/ln	804	1777	1851	544	1777	1782	1693	0	0	1311	1870	1585
Q Serve(g_s), s	3.9	11.5	11.5	1.1	6.0	6.1	0.0	0.0	0.0	0.0	0.9	1.5
Cycle Q Clear(g_c), s	9.9	11.5	11.5	12.7	6.0	6.1	1.7	0.0	0.0	1.3	0.9	1.5
Prop In Lane	1.00		0.06	1.00		0.28	0.23		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	341	641	668	217	641	643	842	0	0	753	821	696
V/C Ratio(X)	0.23	0.79	0.79	0.07	0.48	0.48	0.13	0.00	0.00	0.12	0.08	0.13
Avail Cap(c_a), veh/h	373	711	741	238	711	713	842	0	0	753	821	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.91	0.91	0.91	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	12.9	12.9	18.5	11.1	11.1	7.5	0.0	0.0	7.4	7.3	7.5
Incr Delay (d2), s/veh	0.2	3.8	3.6	0.1	0.5	0.5	0.3	0.0	0.0	0.3	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.3	4.5	0.1	2.0	2.0	0.6	0.0	0.0	0.4	0.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	16.6	16.5	18.7	11.6	11.7	7.9	0.0	0.0	7.8	7.5	7.9
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1118			635			111			240	
Approach Delay, s/veh		16.5			11.8			7.9			7.7	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.3		20.7		24.3		20.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		3.7		13.5		3.5		14.7				
Green Ext Time (p_c), s		0.4		2.7		0.7		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				13.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘			↕		↗	↗	↗
Traffic Volume (veh/h)	59	1377	30	26	558	55	22	52	36	89	78	72
Future Volume (veh/h)	59	1377	30	26	558	55	22	52	36	89	78	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	1497	33	28	607	60	24	57	39	97	85	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	415	1771	39	165	1627	161	148	324	192	600	658	558
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	769	3555	78	340	3267	322	215	920	546	1300	1870	1585
Grp Volume(v), veh/h	64	747	783	28	330	337	120	0	0	97	85	78
Grp Sat Flow(s),veh/h/ln	769	1777	1856	340	1777	1812	1681	0	0	1300	1870	1585
Q Serve(g_s), s	3.4	21.9	22.0	4.7	6.9	6.9	0.0	0.0	0.0	0.0	1.9	2.0
Cycle Q Clear(g_c), s	10.2	21.9	22.0	26.6	6.9	6.9	2.8	0.0	0.0	2.2	1.9	2.0
Prop In Lane	1.00		0.04	1.00		0.18	0.20		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	415	885	925	165	885	903	663	0	0	600	658	558
V/C Ratio(X)	0.15	0.84	0.85	0.17	0.37	0.37	0.18	0.00	0.00	0.16	0.13	0.14
Avail Cap(c_a), veh/h	436	933	975	174	933	951	663	0	0	600	658	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	0.86	0.86	0.86	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.4	13.0	13.1	24.6	9.3	9.3	13.5	0.0	0.0	13.3	13.2	13.3
Incr Delay (d2), s/veh	0.1	3.0	2.9	0.4	0.2	0.2	0.6	0.0	0.0	0.6	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	7.8	8.2	0.4	2.3	2.3	1.1	0.0	0.0	0.9	0.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.5	16.0	16.0	25.0	9.5	9.5	14.1	0.0	0.0	13.9	13.6	13.8
LnGrp LOS	B	B	B	C	A	A	B	A	A	B	B	B
Approach Vol, veh/h		1594			695			120			260	
Approach Delay, s/veh		15.9			10.1			14.1			13.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.6		34.4		25.6		34.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		4.8		24.0		4.2		28.6				
Green Ext Time (p_c), s		0.5		5.6		0.9		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				14.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕		↗	↕		↖	↕	↗
Traffic Volume (veh/h)	158	811	39	39	355	46	76	206	68	50	179	118
Future Volume (veh/h)	158	811	39	39	355	46	76	206	68	50	179	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	882	42	42	386	50	83	224	74	54	195	128
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	972	46	73	753	97	106	933	300	85	638	541
Arrive On Green	0.08	0.28	0.28	0.04	0.24	0.24	0.06	0.35	0.35	0.05	0.34	0.34
Sat Flow, veh/h	1781	3453	164	1781	3166	407	1781	2644	850	1781	1870	1585
Grp Volume(v), veh/h	172	454	470	42	215	221	83	149	149	54	195	128
Grp Sat Flow(s),veh/h/ln	1781	1777	1841	1781	1777	1797	1781	1777	1717	1781	1870	1585
Q Serve(g_s), s	5.5	16.0	16.0	1.5	6.8	6.9	3.0	3.8	4.0	1.9	5.0	3.8
Cycle Q Clear(g_c), s	5.5	16.0	16.0	1.5	6.8	6.9	3.0	3.8	4.0	1.9	5.0	3.8
Prop In Lane	1.00		0.09	1.00		0.23	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	151	500	518	73	422	427	106	627	606	85	638	541
V/C Ratio(X)	1.14	0.91	0.91	0.58	0.51	0.52	0.78	0.24	0.25	0.63	0.31	0.24
Avail Cap(c_a), veh/h	151	506	524	137	492	498	137	627	606	137	638	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	22.5	22.5	30.6	21.5	21.5	30.1	14.9	14.9	30.4	15.8	15.4
Incr Delay (d2), s/veh	101.6	14.0	13.6	7.0	1.0	1.0	19.2	0.9	1.0	7.5	1.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	7.7	7.9	0.7	2.7	2.7	1.8	1.5	1.6	1.0	2.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	131.3	36.5	36.1	37.6	22.4	22.5	49.3	15.7	15.9	37.9	17.0	16.4
LnGrp LOS	F	D	D	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		1096			478			381			377	
Approach Delay, s/veh		51.2			23.8			23.1			19.8	
Approach LOS		D			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	27.4	7.2	22.8	8.4	26.7	10.0	20.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.5	5.0	18.5	5.0	18.5	5.5	18.0				
Max Q Clear Time (g_c+I1), s	3.9	6.0	3.5	18.0	5.0	7.0	7.5	8.9				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.3	0.0	1.2	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay				35.9								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	1241	45	39	424	70	84	248	64	79	217	131
Future Volume (veh/h)	187	1241	45	39	424	70	84	248	64	79	217	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	203	1349	49	42	461	76	91	270	70	86	236	142
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	1418	51	68	934	153	116	756	192	110	498	422
Arrive On Green	0.14	0.41	0.41	0.04	0.31	0.31	0.07	0.27	0.27	0.06	0.27	0.27
Sat Flow, veh/h	1781	3497	127	1781	3056	501	1781	2805	714	1781	1870	1585
Grp Volume(v), veh/h	203	685	713	42	267	270	91	169	171	86	236	142
Grp Sat Flow(s),veh/h/ln	1781	1777	1848	1781	1777	1780	1781	1777	1742	1781	1870	1585
Q Serve(g_s), s	8.9	29.8	29.9	1.9	9.8	9.9	4.0	6.1	6.4	3.8	8.5	5.8
Cycle Q Clear(g_c), s	8.9	29.8	29.9	1.9	9.8	9.9	4.0	6.1	6.4	3.8	8.5	5.8
Prop In Lane	1.00		0.07	1.00		0.28	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	245	721	749	68	543	544	116	479	470	110	498	422
V/C Ratio(X)	0.83	0.95	0.95	0.62	0.49	0.50	0.78	0.35	0.36	0.78	0.47	0.34
Avail Cap(c_a), veh/h	385	724	753	114	543	544	118	479	470	118	498	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	23.0	23.0	37.9	22.7	22.7	36.8	23.6	23.7	37.0	24.7	23.7
Incr Delay (d2), s/veh	4.3	13.5	13.5	9.0	0.7	0.7	27.7	2.0	2.2	26.4	3.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	13.5	14.0	0.9	3.9	3.9	2.6	2.7	2.8	2.5	4.1	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	36.5	36.5	46.9	23.4	23.4	64.5	25.6	25.8	63.3	27.9	25.8
LnGrp LOS	D	D	D	D	C	C	E	C	C	E	C	C
Approach Vol, veh/h		1601			579			431			464	
Approach Delay, s/veh		36.7			25.1			33.9			33.8	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	26.1	7.5	36.9	9.7	25.8	15.5	29.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.3	19.0	5.1	32.6	5.3	19.0	17.3	20.4				
Max Q Clear Time (g_c+I1), s	5.8	8.4	3.9	31.9	6.0	10.5	10.9	11.9				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.5	0.0	1.2	0.3	2.0				
Intersection Summary												
HCM 6th Ctrl Delay				33.7								
HCM 6th LOS				C								

HCM 6th TWSC
25: Claremont Blvd & 9th St

04/17/2024

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	71	70	383	354	36
Future Vol, veh/h	29	71	70	383	354	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	77	76	416	385	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	765	212	424	0	-	0
Stage 1	405	-	-	-	-	-
Stage 2	360	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	340	793	1132	-	-	-
Stage 1	642	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	317	793	1132	-	-	-
Mov Cap-2 Maneuver	317	-	-	-	-	-
Stage 1	599	-	-	-	-	-
Stage 2	677	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1132	-	552	-	-
HCM Lane V/C Ratio	0.067	-	0.197	-	-
HCM Control Delay (s)	8.4	-	13.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-

HCM 6th TWSC
25: Claremont Blvd & 9th St

04/17/2024

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑↑	↑↑	
Traffic Vol, veh/h	31	68	55	327	339	38
Future Vol, veh/h	31	68	55	327	339	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	74	60	355	368	41

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	687	205	409	0	-	0
Stage 1	389	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	381	802	1146	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	361	802	1146	-	-	-
Mov Cap-2 Maneuver	361	-	-	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	727	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1146	-	580	-	-
HCM Lane V/C Ratio	0.052	-	0.186	-	-
HCM Control Delay (s)	8.3	-	12.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	74	0	0	75	0	0
Future Vol, veh/h	74	0	0	75	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	80	0	0	82	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	-	-	40
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	1022
Stage 1	-	-	0	-	-
Stage 2	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	1022
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	66	0	0	67	0	0
Future Vol, veh/h	66	0	0	67	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	0	0	73	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 36
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	- 0	- 0 1029
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 1029
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	27	0	0	28
Future Vol, veh/h	0	0	27	0	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	29	0	0	30

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	15	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1061	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1061	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	22	0	0	23
Future Vol, veh/h	0	0	22	0	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	24	0	0	25

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	12	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	1065	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1065	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	25	26	0
Future Vol, veh/h	0	0	0	25	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	26	27	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	14	27	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-
Pot Cap-1 Maneuver	0	900	1122	-	-
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	900	1122	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1122	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	27	29	0
Future Vol, veh/h	0	0	0	27	29	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	29	32	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	16	32	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-
Pot Cap-1 Maneuver	0	897	1116	-	-
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	897	1116	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1116	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th Signalized Intersection Summary

29: Richton St & Monte Vista Ave

03/19/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↖	↖	↕		↖	↗	↖
Traffic Volume (veh/h)	0	0	0	45	0	38	2	477	38	28	627	0
Future Volume (veh/h)	0	0	0	45	0	38	2	477	38	28	627	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	47	0	40	2	502	40	29	660	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	93	152	128	5	1684	134	121	2744	0
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.08	0.00	0.51	0.51	0.04	0.54	0.00
Sat Flow, veh/h	0	-64965	0	1781	1870	1585	1781	3335	265	3456	5274	0
Grp Volume(v), veh/h	0	0	0	47	0	40	2	267	275	29	660	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1823	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	0.8	0.0	3.1	3.1	0.3	2.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.9	0.0	0.8	0.0	3.1	3.1	0.3	2.4	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.15	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	93	152	128	5	898	921	121	2744	0
V/C Ratio(X)	0.00	0.00	0.00	0.51	0.00	0.31	0.40	0.30	0.30	0.24	0.24	0.00
Avail Cap(c_a), veh/h	0	945	0	250	945	801	250	898	921	485	2744	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.4	0.0	15.4	17.7	5.1	5.1	16.7	4.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.2	0.0	1.4	44.5	0.8	0.8	1.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.4	0.0	0.3	0.1	0.8	0.9	0.1	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	20.6	0.0	16.8	62.3	6.0	6.0	17.7	4.6	0.0
LnGrp LOS	A	A	A	C	A	B	E	A	A	B	A	A
Approach Vol, veh/h		0			87			544			689	
Approach Delay, s/veh		0.0			18.9			6.2			5.1	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	22.5	6.4	1.0	4.6	23.6		7.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	5.1	2.9	0.0	2.0	4.4		2.8				
Green Ext Time (p_c), s	0.0	2.7	0.0	0.0	0.0	3.8		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			6.5									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↖	↗	↗	↕		↗	↖	↖
Traffic Volume (veh/h)	0	1	0	63	1	33	0	537	51	22	714	0
Future Volume (veh/h)	0	1	0	63	1	33	0	537	51	22	714	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	0	68	1	36	0	584	55	24	776	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	80	0	116	404	342	4	1416	133	101	2902	0
Arrive On Green	0.00	0.04	0.00	0.07	0.22	0.22	0.00	0.43	0.43	0.03	0.57	0.00
Sat Flow, veh/h	0	1870	0	1781	1870	1585	1781	3283	309	3456	5274	0
Grp Volume(v), veh/h	0	1	0	68	1	36	0	316	323	24	776	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1815	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.8	0.0	5.1	5.1	0.3	3.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5	0.0	0.8	0.0	5.1	5.1	0.3	3.2	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	0	80	0	116	404	342	4	767	783	101	2902	0
V/C Ratio(X)	0.00	0.01	0.00	0.58	0.00	0.11	0.00	0.41	0.41	0.24	0.27	0.00
Avail Cap(c_a), veh/h	0	807	0	213	807	684	213	767	783	414	2902	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	19.1	0.0	18.9	12.8	13.1	0.0	8.2	8.2	19.8	4.6	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	4.6	0.0	0.1	0.0	1.6	1.6	1.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.2	0.0	1.8	1.8	0.1	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.2	0.0	23.5	12.8	13.3	0.0	9.8	9.8	21.0	4.8	0.0
LnGrp LOS	A	B	A	C	B	B	A	A	A	C	A	A
Approach Vol, veh/h		1			105			639			800	
Approach Delay, s/veh		19.2			19.9			9.8			5.3	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	22.5	7.2	6.3	0.0	28.2		13.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	7.1	3.5	2.0	0.0	5.2		2.8				
Green Ext Time (p_c), s	0.0	3.0	0.0	0.0	0.0	4.4		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			8.2									
HCM 6th LOS			A									

APPENDIX D

OPENING YEAR WITH PROJECT LEVEL-OF-SERVICE

WORKSHEET

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	454	231	371	769	67	131	49	282	36	172	55
Future Volume (veh/h)	33	454	231	371	769	67	131	49	282	36	172	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	493	251	403	836	73	142	53	307	39	187	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	759	338	425	1475	658	438	605	539	297	908	283
Arrive On Green	0.04	0.21	0.21	0.24	0.42	0.42	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1133	1777	1585	1022	2667	830
Grp Volume(v), veh/h	36	493	251	403	836	73	142	53	307	39	123	124
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1133	1777	1585	1022	1777	1721
Q Serve(g_s), s	1.3	8.2	9.6	14.5	11.7	1.8	6.6	1.3	10.3	2.1	3.2	3.3
Cycle Q Clear(g_c), s	1.3	8.2	9.6	14.5	11.7	1.8	10.0	1.3	10.3	12.4	3.2	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	65	759	338	425	1475	658	438	605	539	297	605	586
V/C Ratio(X)	0.55	0.65	0.74	0.95	0.57	0.11	0.32	0.09	0.57	0.13	0.20	0.21
Avail Cap(c_a), veh/h	153	984	439	425	1525	680	438	605	539	297	605	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.78	0.78	0.78	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	23.3	23.9	24.4	14.5	11.7	18.8	14.6	17.5	22.6	15.2	15.2
Incr Delay (d2), s/veh	7.0	1.0	4.8	26.3	0.4	0.1	1.8	0.3	3.9	0.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.3	3.8	8.8	4.3	0.6	1.8	0.5	4.0	0.6	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	24.3	28.7	50.7	14.9	11.7	20.5	14.8	21.4	23.5	15.9	16.1
LnGrp LOS	D	C	C	D	B	B	C	B	C	C	B	B
Approach Vol, veh/h		780			1312			502			286	
Approach Delay, s/veh		26.3			25.7			20.5			17.0	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.6	20.0	18.4		26.6	6.9	31.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	15.5	18.0		18.0	5.6	27.9				
Max Q Clear Time (g_c+I1), s		12.3	16.5	11.6		14.4	3.3	13.7				
Green Ext Time (p_c), s		1.4	0.0	2.3		0.5	0.0	5.3				
Intersection Summary												
HCM 6th Ctrl Delay				24.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

























03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	60	722	102	177	453	56	179	74	237	49	55	36
Future Volume (veh/h)	60	722	102	177	453	56	179	74	237	49	55	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	785	111	192	492	61	195	80	258	53	60	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	964	430	238	1243	554	574	658	587	378	792	473
Arrive On Green	0.06	0.27	0.27	0.13	0.35	0.35	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1296	1777	1585	1042	2141	1277
Grp Volume(v), veh/h	65	785	111	192	492	61	195	80	258	53	49	50
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1296	1777	1585	1042	1777	1641
Q Serve(g_s), s	2.1	12.4	3.3	6.3	6.3	1.6	6.9	1.8	7.3	2.4	1.1	1.2
Cycle Q Clear(g_c), s	2.1	12.4	3.3	6.3	6.3	1.6	8.1	1.8	7.3	9.8	1.1	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	98	964	430	238	1243	554	574	658	587	378	658	607
V/C Ratio(X)	0.66	0.81	0.26	0.81	0.40	0.11	0.34	0.12	0.44	0.14	0.07	0.08
Avail Cap(c_a), veh/h	193	1066	476	285	1250	557	574	658	587	378	658	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	20.4	17.1	25.2	14.7	13.2	14.9	12.5	14.2	17.9	12.2	12.3
Incr Delay (d2), s/veh	7.4	4.6	0.3	12.5	0.2	0.1	1.5	0.3	2.2	0.8	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.3	1.1	3.3	2.3	0.5	2.1	0.7	2.7	0.6	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	25.0	17.4	37.7	14.9	13.3	16.4	12.8	16.4	18.7	12.5	12.5
LnGrp LOS	D	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		961			745			533			152	
Approach Delay, s/veh		24.8			20.7			15.8			14.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.7	12.5	20.8		26.7	7.8	25.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.9	9.6	18.0		18.9	6.5	21.1				
Max Q Clear Time (g_c+I1), s		10.1	8.3	14.4		11.8	4.1	8.3				
Green Ext Time (p_c), s		1.9	0.1	1.9		0.4	0.0	2.8				
Intersection Summary												
HCM 6th Ctrl Delay				20.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

03/20/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	426	143	157	935	33	129	110	104	83	182	174
Future Volume (veh/h)	67	426	143	157	935	33	129	110	104	83	182	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	463	155	171	1016	36	140	120	113	90	198	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	987	440	215	1207	538	422	705	597	503	705	597
Arrive On Green	0.06	0.28	0.28	0.12	0.34	0.34	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	997	1870	1585	1147	1870	1585
Grp Volume(v), veh/h	73	463	155	171	1016	36	140	120	113	90	198	189
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	997	1870	1585	1147	1870	1585
Q Serve(g_s), s	2.4	6.5	4.7	5.6	15.9	0.9	6.8	2.6	2.9	3.4	4.4	5.1
Cycle Q Clear(g_c), s	2.4	6.5	4.7	5.6	15.9	0.9	11.3	2.6	2.9	6.0	4.4	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	987	440	215	1207	538	422	705	597	503	705	597
V/C Ratio(X)	0.70	0.47	0.35	0.80	0.84	0.07	0.33	0.17	0.19	0.18	0.28	0.32
Avail Cap(c_a), veh/h	163	1066	476	282	1303	581	422	705	597	503	705	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.73	0.73	0.73	0.39	0.39	0.39	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	18.0	17.4	25.7	18.3	13.4	17.0	12.5	12.5	14.4	13.0	13.2
Incr Delay (d2), s/veh	6.6	0.3	0.4	8.3	3.6	0.0	0.8	0.2	0.3	0.8	1.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.5	1.6	2.7	6.4	0.3	1.5	1.0	1.0	0.9	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	18.3	17.7	34.0	21.9	13.4	17.8	12.7	12.8	15.2	14.0	14.6
LnGrp LOS	C	B	B	C	C	B	B	B	B	B	B	B
Approach Vol, veh/h		691			1223			373			477	
Approach Delay, s/veh		19.8			23.4			14.6			14.5	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.1	11.7	21.2		27.1	8.0	24.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	9.5	18.0		19.0	5.5	22.0				
Max Q Clear Time (g_c+I1), s		13.3	7.6	8.5		8.0	4.4	17.9				
Green Ext Time (p_c), s		0.9	0.1	2.5		1.6	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				19.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	97	769	86	96	491	58	156	100	113	71	76	89
Future Volume (veh/h)	97	769	86	96	491	58	156	100	113	71	76	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	836	93	104	534	63	170	109	123	77	83	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	1044	466	133	1042	465	601	722	612	578	722	612
Arrive On Green	0.08	0.29	0.29	0.07	0.29	0.29	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1315	1870	1585	1284	1870	1585
Grp Volume(v), veh/h	105	836	93	104	534	63	170	109	123	77	83	97
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1315	1870	1585	1284	1870	1585
Q Serve(g_s), s	3.2	11.9	2.4	3.2	6.9	1.6	5.2	2.1	2.8	2.3	1.6	2.2
Cycle Q Clear(g_c), s	3.2	11.9	2.4	3.2	6.9	1.6	6.8	2.1	2.8	4.4	1.6	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	134	1044	466	133	1042	465	601	722	612	578	722	612
V/C Ratio(X)	0.78	0.80	0.20	0.78	0.51	0.14	0.28	0.15	0.20	0.13	0.11	0.16
Avail Cap(c_a), veh/h	165	1169	522	162	1163	519	601	722	612	578	722	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.86	0.86	0.86	0.47	0.47	0.47	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	17.9	14.6	25.0	16.2	14.3	13.0	11.0	11.2	12.4	10.8	11.0
Incr Delay (d2), s/veh	11.3	2.3	0.1	15.8	0.3	0.1	0.6	0.2	0.3	0.5	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	4.6	0.8	1.8	2.5	0.5	1.4	0.8	0.9	0.7	0.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	20.2	14.7	40.9	16.5	14.4	13.6	11.2	11.6	12.9	11.2	11.6
LnGrp LOS	D	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1034			701			402			257	
Approach Delay, s/veh		21.3			19.9			12.3			11.8	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.7	8.6	20.7		25.7	8.6	20.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.4	5.0	18.1		18.4	5.1	18.0				
Max Q Clear Time (g_c+I1), s		8.8	5.2	13.9		6.4	5.2	8.9				
Green Ext Time (p_c), s		1.1	0.0	2.2		0.8	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				18.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	29	412	156	545	880	92	211	68	398	94	81	73
Future Volume (veh/h)	29	412	156	545	880	92	211	68	398	94	81	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	448	170	592	957	100	229	74	433	102	88	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	609	271	668	1180	526	571	630	534	477	610	495
Arrive On Green	0.03	0.17	0.17	0.19	0.33	0.33	0.07	0.34	0.34	0.06	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1862	1513
Grp Volume(v), veh/h	32	448	170	592	957	100	229	74	433	102	84	83
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1598
Q Serve(g_s), s	1.3	9.0	7.5	12.5	18.5	3.4	5.1	2.0	18.7	2.8	2.5	2.8
Cycle Q Clear(g_c), s	1.3	9.0	7.5	12.5	18.5	3.4	5.1	2.0	18.7	2.8	2.5	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	58	609	271	668	1180	526	571	630	534	477	582	523
V/C Ratio(X)	0.55	0.74	0.63	0.89	0.81	0.19	0.40	0.12	0.81	0.21	0.14	0.16
Avail Cap(c_a), veh/h	119	853	380	668	1303	581	571	630	534	491	582	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	29.5	28.8	29.4	22.9	17.9	16.3	17.2	22.7	15.0	17.8	17.9
Incr Delay (d2), s/veh	7.8	2.0	2.3	13.6	3.7	0.2	0.4	0.4	11.8	0.2	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.7	2.8	6.0	7.4	1.1	2.5	0.9	7.9	1.0	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.5	31.5	31.1	43.1	26.5	18.0	16.8	17.5	34.5	15.2	18.3	18.6
LnGrp LOS	D	C	C	D	C	B	B	B	C	B	B	B
Approach Vol, veh/h		650			1649			736			269	
Approach Delay, s/veh		32.0			32.0			27.3			17.2	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	29.8	19.0	17.3	9.6	29.1	6.9	29.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.5	14.5	18.0	5.1	19.4	5.0	27.5				
Max Q Clear Time (g_c+I1), s	4.8	20.7	14.5	11.0	7.1	4.8	3.3	20.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	0.7	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay				29.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	53	778	174	490	490	148	159	138	607	103	74	43
Future Volume (veh/h)	53	778	174	490	490	148	159	138	607	103	74	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	846	189	533	533	161	173	150	660	112	80	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	918	410	595	1379	615	556	585	496	351	623	340
Arrive On Green	0.04	0.26	0.26	0.17	0.39	0.39	0.09	0.31	0.31	0.06	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2218	1211
Grp Volume(v), veh/h	58	846	189	533	533	161	173	150	660	112	63	64
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1652
Q Serve(g_s), s	2.9	20.9	9.0	13.6	9.7	6.2	6.1	5.4	28.1	4.0	2.4	2.6
Cycle Q Clear(g_c), s	2.9	20.9	9.0	13.6	9.7	6.2	6.1	5.4	28.1	4.0	2.4	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.73
Lane Grp Cap(c), veh/h	76	918	410	595	1379	615	556	585	496	351	499	464
V/C Ratio(X)	0.77	0.92	0.46	0.90	0.39	0.26	0.31	0.26	1.33	0.32	0.13	0.14
Avail Cap(c_a), veh/h	143	928	414	595	1379	615	559	585	496	351	499	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	32.5	28.1	36.5	19.8	18.8	19.6	23.1	30.9	21.1	24.1	24.2
Incr Delay (d2), s/veh	10.9	10.9	0.6	16.1	0.2	0.2	0.3	0.9	161.1	0.5	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	9.7	3.3	6.7	3.7	2.1	2.4	2.4	32.0	1.6	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	43.4	28.7	52.6	20.0	19.0	19.9	24.0	192.1	21.6	24.6	24.8
LnGrp LOS	D	D	C	D	C	B	B	C	F	C	C	C
Approach Vol, veh/h		1093			1227			983			239	
Approach Delay, s/veh		41.4			34.0			136.1			23.3	
Approach LOS		D			C			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	32.6	20.0	27.8	12.5	29.8	8.3	39.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	27.9	15.5	23.5	8.1	24.9	7.2	31.8				
Max Q Clear Time (g_c+I1), s	6.0	30.1	15.6	22.9	8.1	4.6	4.9	11.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	0.5	0.0	3.7				
Intersection Summary												
HCM 6th Ctrl Delay			63.9									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/03/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘		↗↗	↘		↗
Traffic Volume (veh/h)	103	287	511	30	772	668	171	0	442	43	0	571
Future Volume (veh/h)	103	287	511	30	772	668	171	0	442	43	0	571
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	112	312	555	33	839	726	186	0	480	47	0	621
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	142	1060	473	58	893	398	891	0	0	891	0	0
Arrive On Green	0.08	0.30	0.30	0.03	0.25	0.25	0.50	0.00	0.00	0.50	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	186		1781	47	
Grp Volume(v), veh/h	112	312	555	33	839	726	186	11.3		47	10.3	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	4.9	5.4	23.9	1.5	18.5	20.1	4.7			1.1		
Cycle Q Clear(g_c), s	4.9	5.4	23.9	1.5	18.5	20.1	4.7			1.1		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	142	1060	473	58	893	398	891			891		
V/C Ratio(X)	0.79	0.29	1.17	0.57	0.94	1.82	0.21			0.05		
Avail Cap(c_a), veh/h	143	1060	473	114	893	398	891			891		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	36.2	21.6	28.1	38.2	29.4	29.9	11.1			10.3		
Incr Delay (d2), s/veh	25.1	0.2	98.6	8.5	17.3	380.1	0.1			0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	3.0	2.1	21.1	0.7	9.3	49.0	1.6			0.4		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	21.7	126.6	46.7	46.7	410.1	11.3			10.3		
LnGrp LOS	E	C	F	D	D	F	B			B		
Approach Vol, veh/h		979			1598							
Approach Delay, s/veh		85.7			211.8							
Approach LOS		F			F							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	44.5		7.1	28.4	44.5		10.9	24.6				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	6.4		5.1	21.4	9.5		6.4	20.1				
Max Q Clear Time (g_c+I1), s	3.1		3.5	25.9	6.7		6.9	22.1				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			151.2									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	845	478	33	486	395	128	0	859	80	0	518
Future Volume (veh/h)	164	845	478	33	486	395	128	0	859	80	0	518
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	178	918	520	36	528	429	139	0	934	87	0	563
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	216	1108	494	61	800	357	864	0	0	864	0	0
Arrive On Green	0.12	0.31	0.31	0.03	0.22	0.22	0.49	0.00	0.00	0.49	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	139		1781	87	
Grp Volume(v), veh/h	178	918	520	36	528	429	139	11.6		87	11.2	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	7.8	19.2	24.9	1.6	10.8	18.0	3.5			2.1		
Cycle Q Clear(g_c), s	7.8	19.2	24.9	1.6	10.8	18.0	3.5			2.1		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	216	1108	494	61	800	357	864			864		
V/C Ratio(X)	0.82	0.83	1.05	0.59	0.66	1.20	0.16			0.10		
Avail Cap(c_a), veh/h	256	1108	494	111	800	357	864			864		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	34.3	25.5	27.5	38.1	28.2	31.0	11.5			11.1		
Incr Delay (d2), s/veh	16.9	5.4	55.0	8.6	2.0	115.1	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.2	8.1	16.0	0.8	4.4	17.7	1.2			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	30.9	82.5	46.7	30.2	146.1	11.6			11.2		
LnGrp LOS	D	C	F	D	C	F	B			B		
Approach Vol, veh/h		1616			993							
Approach Delay, s/veh		49.8			80.9							
Approach LOS		D			F							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	43.3		7.3	29.4	43.3		14.2	22.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	6.5		5.0	24.5	8.5		11.5	18.0				
Max Q Clear Time (g_c+I1), s	4.1		3.6	26.9	5.5		9.8	20.0				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			57.6									
HCM 6th LOS			E									

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	187	2	14	1	0	0	11	464	1	0	422	309
Future Volume (vph)	187	2	14	1	0	0	11	464	1	0	422	309
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95			0.95	1.00
Frt	1.00	1.00	0.85		1.00		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1613	1504		1770		1770	3538			3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1613	1504		1863		1770	3538			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	203	2	15	1	0	0	12	504	1	0	459	336
RTOR Reduction (vph)	0	1	12	0	0	0	0	0	0	0	0	125
Lane Group Flow (vph)	104	102	1	0	1	0	12	505	0	0	459	211
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	9.1	9.1	9.1		1.2		1.5	56.2			50.2	50.2
Effective Green, g (s)	9.1	9.1	9.1		1.2		1.5	56.2			50.2	50.2
Actuated g/C Ratio	0.11	0.11	0.11		0.01		0.02	0.70			0.63	0.63
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	191	183	171		27		33	2485			2220	993
v/s Ratio Prot	0.06	c0.06					0.01	c0.14			0.13	
v/s Ratio Perm			0.00		c0.00							0.13
v/c Ratio	0.54	0.56	0.01		0.04		0.36	0.20			0.21	0.21
Uniform Delay, d1	33.5	33.5	31.4		38.8		38.8	4.1			6.4	6.4
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	3.2	3.7	0.0		0.6		6.7	0.2			0.2	0.5
Delay (s)	36.6	37.2	31.5		39.4		45.5	4.3			6.6	6.9
Level of Service	D	D	C		D		D	A			A	A
Approach Delay (s)		36.6			39.4			5.3			6.7	
Approach LOS		D			D			A			A	

Intersection Summary		
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio	0.27	
Actuated Cycle Length (s)	80.0	Sum of lost time (s) 18.0
Intersection Capacity Utilization	38.7%	ICU Level of Service A
Analysis Period (min)	15	

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

03/20/2024


























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	335	0	21	3	9	1	19	523	1	1	473	217
Future Volume (vph)	335	0	21	3	9	1	19	523	1	1	473	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1613	1504		1825		1770	3538		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.44	1.00	1.00
Satd. Flow (perm)	1681	1613	1504		1845		1770	3538		816	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	364	0	23	3	10	1	21	568	1	1	514	236
RTOR Reduction (vph)	0	119	17	0	1	0	0	0	0	0	0	107
Lane Group Flow (vph)	182	65	4	0	13	0	21	569	0	1	514	129
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	13.7	13.7	13.7		1.5		3.0	51.3		43.8	43.8	43.8
Effective Green, g (s)	13.7	13.7	13.7		1.5		3.0	51.3		43.8	43.8	43.8
Actuated g/C Ratio	0.17	0.17	0.17		0.02		0.04	0.64		0.55	0.55	0.55
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	287	276	257		34		66	2268		446	1937	866
v/s Ratio Prot	c0.11	0.04					0.01	c0.16			c0.15	
v/s Ratio Perm			0.00		c0.01					0.00		0.08
v/c Ratio	0.63	0.24	0.01		0.38		0.32	0.25		0.00	0.27	0.15
Uniform Delay, d1	30.8	28.6	27.5		38.8		37.5	6.1		8.2	9.6	8.9
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.5	0.4	0.0		7.0		2.8	0.3		0.0	0.3	0.4
Delay (s)	35.3	29.1	27.6		45.8		40.3	6.4		8.2	9.9	9.3
Level of Service	D	C	C		D		D	A		A	A	A
Approach Delay (s)		31.9			45.8			7.6			9.7	
Approach LOS		C			D			A			A	

Intersection Summary		
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.36	B
Actuated Cycle Length (s)	80.0	Sum of lost time (s)
Intersection Capacity Utilization	39.4%	18.0
Analysis Period (min)	15	ICU Level of Service
		A

c Critical Lane Group

HCM 6th Signalized Intersection Summary
6: Foothill Blvd & Indian Hill Blvd

03/20/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	601	120	92	758	138	145	325	83	183	387	166
Future Volume (veh/h)	102	601	120	92	758	138	145	325	83	183	387	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	653	130	100	824	150	158	353	90	199	421	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	780	155	128	911	406	194	817	206	238	590	500
Arrive On Green	0.08	0.26	0.26	0.07	0.26	0.26	0.11	0.29	0.29	0.13	0.32	0.32
Sat Flow, veh/h	1781	2954	587	1781	3554	1585	1781	2812	708	1781	1870	1585
Grp Volume(v), veh/h	111	392	391	100	824	150	158	221	222	199	421	180
Grp Sat Flow(s),veh/h/ln	1781	1777	1765	1781	1777	1585	1781	1777	1743	1781	1870	1585
Q Serve(g_s), s	4.6	15.6	15.7	4.1	16.8	5.8	6.5	7.6	7.8	8.2	14.9	6.6
Cycle Q Clear(g_c), s	4.6	15.6	15.7	4.1	16.8	5.8	6.5	7.6	7.8	8.2	14.9	6.6
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	141	469	466	128	911	406	194	516	507	238	590	500
V/C Ratio(X)	0.79	0.84	0.84	0.78	0.90	0.37	0.81	0.43	0.44	0.84	0.71	0.36
Avail Cap(c_a), veh/h	154	486	482	131	924	412	202	516	507	249	590	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	33.9	26.1	26.1	34.2	27.0	22.9	32.7	21.6	21.6	31.7	22.7	19.8
Incr Delay (d2), s/veh	21.6	11.8	12.1	25.5	12.1	0.6	21.2	2.6	2.7	16.3	5.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	7.6	7.6	2.6	8.1	2.1	3.8	3.3	3.4	4.5	7.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	37.9	38.2	59.8	39.1	23.5	53.8	24.1	24.4	48.0	28.2	21.4
LnGrp LOS	E	D	D	E	D	C	D	C	C	D	C	C
Approach Vol, veh/h		894			1074			601			800	
Approach Delay, s/veh		40.2			38.8			32.0			31.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.5	26.3	9.9	24.3	12.7	28.1	10.4	23.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	20.5	5.5	20.5	8.5	22.5	6.5	19.5				
Max Q Clear Time (g_c+I1), s	10.2	9.8	6.1	17.7	8.5	16.9	6.6	18.8				
Green Ext Time (p_c), s	0.0	1.9	0.0	1.3	0.0	1.6	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			36.3									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

6: Foothill Blvd & Indian Hill Blvd

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↖	↖	↕		↖	↕	↖
Traffic Volume (veh/h)	56	819	126	110	721	114	205	306	127	146	240	84
Future Volume (veh/h)	56	819	126	110	721	114	205	306	127	146	240	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	890	137	120	784	124	223	333	138	159	261	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	959	148	148	1243	554	258	734	299	193	488	414
Arrive On Green	0.04	0.31	0.31	0.17	0.70	0.70	0.15	0.30	0.30	0.11	0.26	0.26
Sat Flow, veh/h	1781	3087	475	1781	3554	1585	1781	2464	1002	1781	1870	1585
Grp Volume(v), veh/h	61	512	515	120	784	124	223	238	233	159	261	91
Grp Sat Flow(s),veh/h/ln	1781	1777	1785	1781	1777	1585	1781	1777	1690	1781	1870	1585
Q Serve(g_s), s	3.1	25.1	25.1	5.8	10.7	2.5	11.0	9.8	10.1	7.9	10.8	4.1
Cycle Q Clear(g_c), s	3.1	25.1	25.1	5.8	10.7	2.5	11.0	9.8	10.1	7.9	10.8	4.1
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	79	552	555	148	1243	554	258	529	503	193	488	414
V/C Ratio(X)	0.78	0.93	0.93	0.81	0.63	0.22	0.86	0.45	0.46	0.82	0.53	0.22
Avail Cap(c_a), veh/h	168	563	565	168	1243	554	287	529	503	232	488	414
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	42.6	30.0	30.0	36.9	10.4	9.2	37.6	25.6	25.7	39.3	28.6	26.1
Incr Delay (d2), s/veh	14.9	21.6	21.6	22.8	1.0	0.2	21.2	2.8	3.0	16.7	3.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	13.3	13.4	3.2	2.8	0.8	6.2	4.4	4.3	4.3	5.2	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	51.6	51.6	59.6	11.4	9.4	58.8	28.4	28.8	56.0	32.3	27.2
LnGrp LOS	E	D	D	E	B	A	E	C	C	E	C	C
Approach Vol, veh/h		1088			1028			694			511	
Approach Delay, s/veh		51.9			16.8			38.3			38.8	
Approach LOS		D			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.2	31.3	12.0	32.5	17.6	28.0	8.5	36.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.7	23.3	8.5	28.5	14.5	20.5	8.5	28.5				
Max Q Clear Time (g_c+I1), s	9.9	12.1	7.8	27.1	13.0	12.8	5.1	12.7				
Green Ext Time (p_c), s	0.1	2.1	0.0	0.8	0.1	1.1	0.0	5.0				
Intersection Summary												
HCM 6th Ctrl Delay			36.2									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↗			↗			↗
Traffic Vol, veh/h	22	846	80	128	1098	10	0	0	94	0	0	8
Future Vol, veh/h	22	846	80	128	1098	10	0	0	94	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	920	87	139	1193	11	0	0	102	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1204	0	0	1007	0	0	-	-	460	-	-	597
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	575	-	-	684	-	-	0	0	548	0	0	446
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	575	-	-	684	-	-	-	-	548	-	-	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			1.2			13.1			13.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	548	575	-	-	684	-	-	446
HCM Lane V/C Ratio	0.186	0.042	-	-	0.203	-	-	0.019
HCM Control Delay (s)	13.1	11.5	-	-	11.6	-	-	13.2
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.8	-	-	0.1

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕	↗	↘	↕	↗			↗			↗
Traffic Vol, veh/h	22	1078	59	74	959	5	0	0	127	0	0	28
Future Vol, veh/h	22	1078	59	74	959	5	0	0	127	0	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	1172	64	80	1042	5	0	0	138	0	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1047	0	0	1236	0	0	-	-	586	-	-	521
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	660	-	-	559	-	-	0	0	454	0	0	500
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	660	-	-	559	-	-	-	-	454	-	-	500
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.9			16.4			12.7		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	454	660	-	-	559	-	-	500
HCM Lane V/C Ratio	0.304	0.036	-	-	0.144	-	-	0.061
HCM Control Delay (s)	16.4	10.7	-	-	12.5	-	-	12.7
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.3	0.1	-	-	0.5	-	-	0.2

HCM 6th Signalized Intersection Summary

8: Dartmouth Ave & Foothill Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	857	83	73	1230	11	10	3	17	11	7	0
Future Volume (veh/h)	4	857	83	73	1230	11	10	3	17	11	7	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	932	90	79	1337	12	11	3	18	12	8	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	1617	721	288	1642	15	254	96	337	437	267	0
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.38	0.38	0.38	0.38	0.00
Sat Flow, veh/h	404	3554	1585	601	3609	32	434	252	882	871	699	0
Grp Volume(v), veh/h	4	932	90	79	658	691	32	0	0	20	0	0
Grp Sat Flow(s),veh/h/ln	404	1777	1585	601	1777	1865	1569	0	0	1570	0	0
Q Serve(g_s), s	0.5	10.7	1.8	6.2	17.6	17.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.1	10.7	1.8	16.8	17.6	17.6	0.7	0.0	0.0	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.34		0.56	0.60		0.00
Lane Grp Cap(c), veh/h	185	1617	721	288	808	848	686	0	0	704	0	0
V/C Ratio(X)	0.02	0.58	0.12	0.27	0.81	0.81	0.05	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	203	1777	793	315	888	932	686	0	0	704	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.37	0.37	0.37	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.8	11.1	8.7	17.3	13.0	13.0	10.7	0.0	0.0	10.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.1	0.2	2.1	2.0	0.1	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.5	0.5	0.8	6.2	6.4	0.2	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	11.5	8.7	17.5	15.1	15.0	10.9	0.0	0.0	10.7	0.0	0.0
LnGrp LOS	C	B	A	B	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1026			1428			32			20	
Approach Delay, s/veh		11.3			15.2			10.9			10.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.5		29.5		25.5		29.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		27.5		18.5		27.5				
Max Q Clear Time (g_c+I1), s		2.7		20.1		2.4		19.6				
Green Ext Time (p_c), s		0.1		3.9		0.0		5.4				
Intersection Summary												
HCM 6th Ctrl Delay				13.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	9	1384	21	12	983	12	85	10	86	28	8	0
Future Volume (veh/h)	9	1384	21	12	983	12	85	10	86	28	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1504	23	13	1068	13	92	11	93	30	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	1788	797	168	1809	22	307	60	252	479	131	0
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.00
Sat Flow, veh/h	522	3554	1585	349	3596	44	631	174	727	1074	376	0
Grp Volume(v), veh/h	10	1504	23	13	528	553	196	0	0	39	0	0
Grp Sat Flow(s),veh/h/ln	522	1777	1585	349	1777	1862	1531	0	0	1451	0	0
Q Serve(g_s), s	0.8	21.9	0.4	2.0	12.6	12.6	3.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.4	21.9	0.4	23.9	12.6	12.6	5.5	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.47		0.47	0.77		0.00
Lane Grp Cap(c), veh/h	273	1788	797	168	894	937	619	0	0	609	0	0
V/C Ratio(X)	0.04	0.84	0.03	0.08	0.59	0.59	0.32	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	293	1925	859	182	962	1009	619	0	0	609	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.3	12.8	7.5	23.1	10.5	10.5	14.5	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	3.3	0.0	0.1	0.5	0.5	1.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	7.9	0.1	0.2	4.2	4.4	2.0	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	16.2	7.5	23.2	11.1	11.0	15.9	0.0	0.0	13.3	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1537			1094			196				39
Approach Delay, s/veh		16.1			11.2			15.9				13.3
Approach LOS		B			B			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.3		34.7		25.3		34.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		7.5		23.9		2.9		25.9				
Green Ext Time (p_c), s		0.8		6.3		0.1		3.7				
Intersection Summary												
HCM 6th Ctrl Delay				14.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	643	6	9	938	119	2	1	9	141	4	347
Future Volume (veh/h)	168	643	6	9	938	119	2	1	9	141	4	347
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	699	7	10	1020	129	2	1	10	153	4	377
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	1538	15	22	1126	502	261	118	407	186	769	651
Arrive On Green	0.12	0.43	0.43	0.01	0.32	0.32	0.26	0.26	0.26	0.10	0.41	0.41
Sat Flow, veh/h	1781	3605	36	1781	3554	1585	756	459	1585	1781	1870	1585
Grp Volume(v), veh/h	183	345	361	10	1020	129	3	0	10	153	4	377
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	1781	1777	1585	1215	0	1585	1781	1870	1585
Q Serve(g_s), s	9.0	12.4	12.4	0.5	24.8	5.4	0.0	0.0	0.4	7.6	0.1	16.5
Cycle Q Clear(g_c), s	9.0	12.4	12.4	0.5	24.8	5.4	0.1	0.0	0.4	7.6	0.1	16.5
Prop In Lane	1.00		0.02	1.00		1.00	0.67		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	758	795	22	1126	502	378	0	407	186	769	651
V/C Ratio(X)	0.84	0.45	0.45	0.46	0.91	0.26	0.01	0.00	0.02	0.82	0.01	0.58
Avail Cap(c_a), veh/h	247	758	795	99	1165	520	378	0	407	208	769	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.71	0.71	0.71	1.00	0.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	38.6	18.3	18.3	44.1	29.5	22.9	24.9	0.0	25.0	39.5	15.6	20.5
Incr Delay (d2), s/veh	17.1	0.3	0.3	10.2	7.5	0.2	0.0	0.0	0.1	19.5	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	4.8	5.0	0.3	11.0	2.0	0.1	0.0	0.2	4.2	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	18.7	18.7	54.3	37.0	23.1	24.9	0.0	25.1	58.9	15.7	23.9
LnGrp LOS	E	B	B	D	D	C	C	A	C	E	B	C
Approach Vol, veh/h		889			1159			13			534	
Approach Delay, s/veh		26.3			35.6			25.1			33.9	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	13.9	27.6	5.6	42.9		41.5	15.5	33.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	19.5	5.0	37.0		34.5	12.5	29.5				
Max Q Clear Time (g_c+I1), s	9.6	2.4	2.5	14.4		18.5	11.0	26.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	4.1		1.2	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			32.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↖		↕	↖	↖	↕	↖
Traffic Volume (veh/h)	173	1098	7	28	768	148	11	7	23	127	4	163
Future Volume (veh/h)	173	1098	7	28	768	148	11	7	23	127	4	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	1193	8	30	835	161	12	8	25	138	4	177
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	1322	9	54	955	426	296	181	448	172	815	690
Arrive On Green	0.13	0.37	0.37	0.03	0.27	0.27	0.28	0.28	0.28	0.10	0.44	0.44
Sat Flow, veh/h	1781	3619	24	1781	3554	1585	792	638	1585	1781	1870	1585
Grp Volume(v), veh/h	188	586	615	30	835	161	20	0	25	138	4	177
Grp Sat Flow(s),veh/h/ln	1781	1777	1866	1781	1777	1585	1431	0	1585	1781	1870	1585
Q Serve(g_s), s	8.2	25.0	25.0	1.3	18.0	6.6	0.0	0.0	0.9	6.1	0.1	5.7
Cycle Q Clear(g_c), s	8.2	25.0	25.0	1.3	18.0	6.6	0.6	0.0	0.9	6.1	0.1	5.7
Prop In Lane	1.00		0.01	1.00		1.00	0.60		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	649	682	54	955	426	477	0	448	172	815	690
V/C Ratio(X)	0.83	0.90	0.90	0.55	0.87	0.38	0.04	0.00	0.06	0.80	0.00	0.26
Avail Cap(c_a), veh/h	265	655	688	114	1008	450	477	0	448	189	815	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.49	0.49	0.49	0.85	0.85	0.85	1.00	0.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	34.1	24.0	24.0	38.2	28.0	23.8	20.8	0.0	20.9	35.4	12.8	14.3
Incr Delay (d2), s/veh	9.3	8.7	8.4	7.3	7.2	0.5	0.2	0.0	0.2	19.3	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	11.0	11.5	0.7	8.0	2.4	0.3	0.0	0.3	3.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	32.8	32.4	45.6	35.2	24.3	21.0	0.0	21.1	54.7	12.8	15.2
LnGrp LOS	D	C	C	D	D	C	C	A	C	D	B	B
Approach Vol, veh/h		1389			1026			45				319
Approach Delay, s/veh		34.0			33.8			21.1				32.3
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	12.2	27.1	6.9	33.7		39.3	14.7	26.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	18.9	5.1	29.5		31.9	11.9	22.7				
Max Q Clear Time (g_c+I1), s	8.1	2.9	3.3	27.0		7.7	10.2	20.0				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.7		0.5	0.1	1.5				
Intersection Summary												
HCM 6th Ctrl Delay				33.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 10: Claremont Blvd & Foothill Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	455	132	152	780	34	180	233	71	60	287	108
Future Volume (veh/h)	164	455	132	152	780	34	180	233	71	60	287	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	495	143	165	848	37	196	253	77	65	312	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	1040	464	207	1010	450	752	988	294	434	931	342
Arrive On Green	0.12	0.29	0.29	0.12	0.28	0.28	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1860	2699	803	1050	2544	935
Grp Volume(v), veh/h	178	495	143	165	848	37	196	165	165	65	216	213
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	930	1777	1726	1050	1777	1702
Q Serve(g_s), s	5.8	6.9	4.2	5.4	13.5	1.0	5.1	3.9	4.0	2.8	5.3	5.4
Cycle Q Clear(g_c), s	5.8	6.9	4.2	5.4	13.5	1.0	10.6	3.9	4.0	6.8	5.3	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		0.55
Lane Grp Cap(c), veh/h	223	1040	464	207	1010	450	752	650	632	434	650	623
V/C Ratio(X)	0.80	0.48	0.31	0.80	0.84	0.08	0.26	0.25	0.26	0.15	0.33	0.34
Avail Cap(c_a), veh/h	282	1143	510	258	1096	489	752	650	632	434	650	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	17.4	16.5	25.8	20.2	15.7	17.6	13.3	13.3	15.7	13.7	13.8
Incr Delay (d2), s/veh	10.7	0.3	0.3	12.8	5.6	0.1	0.8	0.9	1.0	0.7	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.5	1.4	2.8	5.6	0.3	1.0	1.5	1.5	0.7	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	17.7	16.8	38.7	25.8	15.8	18.5	14.2	14.3	16.5	15.1	15.3
LnGrp LOS	D	B	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		816			1050			526			494	
Approach Delay, s/veh		21.6			27.5			15.8			15.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.5	11.5	22.1		26.5	12.0	21.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	8.7	19.3		18.5	9.5	18.5				
Max Q Clear Time (g_c+I1), s		12.6	7.4	8.9		8.8	7.8	15.5				
Green Ext Time (p_c), s		1.5	0.1	2.6		1.9	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay				21.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	978	168	122	624	49	157	261	131	77	198	77
Future Volume (veh/h)	161	978	168	122	624	49	157	261	131	77	198	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	1063	183	133	678	53	171	284	142	84	215	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	1188	530	169	1089	486	832	801	390	362	872	330
Arrive On Green	0.12	0.33	0.33	0.09	0.31	0.31	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2096	2316	1128	961	2521	954
Grp Volume(v), veh/h	175	1063	183	133	678	53	171	216	210	84	149	150
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1048	1777	1667	961	1777	1699
Q Serve(g_s), s	5.7	17.0	5.2	4.4	9.8	1.4	3.8	5.4	5.7	4.3	3.6	3.8
Cycle Q Clear(g_c), s	5.7	17.0	5.2	4.4	9.8	1.4	7.6	5.4	5.7	10.0	3.6	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		0.56
Lane Grp Cap(c), veh/h	219	1188	530	169	1089	486	832	614	576	362	614	587
V/C Ratio(X)	0.80	0.89	0.35	0.79	0.62	0.11	0.21	0.35	0.36	0.23	0.24	0.25
Avail Cap(c_a), veh/h	267	1214	542	193	1089	486	832	614	576	362	614	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.53	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	19.0	15.0	26.6	17.8	14.9	16.8	14.6	14.7	18.4	14.0	14.1
Incr Delay (d2), s/veh	7.4	5.0	0.2	17.2	1.1	0.1	0.5	1.5	1.7	1.5	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.7	1.6	2.5	3.6	0.5	0.9	2.1	2.1	1.0	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	23.9	15.2	43.7	18.9	15.0	17.4	16.2	16.4	19.9	15.0	15.1
LnGrp LOS	C	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1421			864			597			383	
Approach Delay, s/veh		23.9			22.5			16.6			16.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.2	10.2	24.6		25.2	11.9	22.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	6.5	20.5		19.5	9.0	18.0				
Max Q Clear Time (g_c+I1), s		9.6	6.4	19.0		12.0	7.7	11.8				
Green Ext Time (p_c), s		2.4	0.0	1.0		1.2	0.1	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑↗	
Traffic Volume (veh/h)	34	468	86	98	770	168	141	340	85	94	282	46
Future Volume (veh/h)	34	468	86	98	770	168	141	340	85	94	282	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	493	91	103	811	177	148	358	89	99	297	48
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	876	391	238	987	440	266	1112	496	234	1352	212
Arrive On Green	0.04	0.25	0.25	0.07	0.28	0.28	0.08	0.31	0.31	0.07	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4451	698
Grp Volume(v), veh/h	36	493	91	103	811	177	148	358	89	99	225	120
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1745
Q Serve(g_s), s	1.2	7.2	2.7	1.7	12.7	5.4	2.4	4.6	2.4	1.6	2.9	3.0
Cycle Q Clear(g_c), s	1.2	7.2	2.7	1.7	12.7	5.4	2.4	4.6	2.4	1.6	2.9	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	67	876	391	238	987	440	266	1112	496	234	1034	530
V/C Ratio(X)	0.54	0.56	0.23	0.43	0.82	0.40	0.56	0.32	0.18	0.42	0.22	0.23
Avail Cap(c_a), veh/h	150	1080	481	292	1080	481	292	1112	496	292	1034	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	19.5	17.8	26.5	20.0	17.4	26.4	15.6	14.8	26.5	15.4	15.4
Incr Delay (d2), s/veh	6.5	0.6	0.3	1.2	4.8	0.6	1.9	0.8	0.8	1.2	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.7	0.9	0.7	5.1	1.8	1.0	1.7	0.9	0.6	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	20.1	18.1	27.7	24.9	18.0	28.3	16.3	15.6	27.7	15.9	16.4
LnGrp LOS	C	C	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		620			1091			595			444	
Approach Delay, s/veh		20.6			24.0			19.2			18.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	23.0	8.6	19.1	9.1	22.5	6.7	21.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.6	6.6	3.7	9.2	4.4	5.0	3.2	14.7				
Green Ext Time (p_c), s	0.0	1.8	0.0	2.2	0.0	1.5	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	79	960	169	127	584	164	153	276	125	173	420	44
Future Volume (veh/h)	79	960	169	127	584	164	153	276	125	173	420	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	83	1011	178	134	615	173	161	291	132	182	442	46
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	1007	449	246	1045	466	256	1007	449	272	1355	139
Arrive On Green	0.06	0.28	0.28	0.07	0.29	0.29	0.07	0.28	0.28	0.08	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4705	482
Grp Volume(v), veh/h	83	1011	178	134	615	173	161	291	132	182	318	170
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1784
Q Serve(g_s), s	2.9	18.0	5.8	2.4	9.4	5.5	2.9	4.1	4.1	3.3	4.7	4.8
Cycle Q Clear(g_c), s	2.9	18.0	5.8	2.4	9.4	5.5	2.9	4.1	4.1	3.3	4.7	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	108	1007	449	246	1045	466	256	1007	449	272	980	514
V/C Ratio(X)	0.77	1.00	0.40	0.54	0.59	0.37	0.63	0.29	0.29	0.67	0.32	0.33
Avail Cap(c_a), veh/h	140	1007	449	272	1045	466	272	1007	449	272	980	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.4	22.8	18.4	28.5	19.1	17.8	28.6	17.8	17.8	28.5	17.8	17.8
Incr Delay (d2), s/veh	17.3	29.4	0.6	1.9	0.9	0.5	4.2	0.7	1.7	6.2	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	10.6	1.9	1.0	3.5	1.8	1.2	1.5	1.5	1.5	1.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	52.1	18.9	30.4	20.0	18.3	32.7	18.5	19.5	34.6	18.6	19.5
LnGrp LOS	D	F	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		1272			922			584			670	
Approach Delay, s/veh		47.1			21.2			22.6			23.2	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.0	22.5	9.2	22.8	8.3	23.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.3	6.1	4.4	20.0	4.9	6.8	4.9	11.4				
Green Ext Time (p_c), s	0.0	1.6	0.0	0.0	0.0	2.1	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				31.4								
HCM 6th LOS				C								

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	506	106	206	927	0	146	0	188	0	0	1
Future Volume (vph)	4	506	106	206	927	0	146	0	188	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.89	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1490	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1490	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	533	112	217	976	0	154	0	198	0	0	1
RTOR Reduction (vph)	0	0	80	0	0	0	0	81	78	0	1	0
Lane Group Flow (vph)	4	533	32	217	976	0	122	36	35	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.8	17.2	17.2	5.1	21.5		18.3	18.3	18.3		0.9	
Effective Green, g (s)	0.8	17.2	17.2	5.1	21.5		18.3	18.3	18.3		0.9	
Actuated g/C Ratio	0.01	0.29	0.29	0.09	0.36		0.31	0.31	0.31		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	23	1023	457	294	1278		517	458	462		45	
v/s Ratio Prot	0.00	0.15		c0.06	c0.28		c0.07	0.02			c0.00	
v/s Ratio Perm			0.02						0.02			
v/c Ratio	0.17	0.52	0.07	0.74	0.76		0.24	0.08	0.08		0.00	
Uniform Delay, d1	29.0	17.7	15.4	26.5	16.8		15.4	14.6	14.6		28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.6	0.5	0.1	9.3	2.8		1.1	0.3	0.3		0.0	
Delay (s)	32.6	18.2	15.4	35.9	19.5		16.5	15.0	14.9		28.9	
Level of Service	C	B	B	D	B		B	B	B		C	
Approach Delay (s)		17.8			22.5			15.5			28.9	
Approach LOS		B			C			B			C	

Intersection Summary

HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	59.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1060	180	265	726	1	146	1	375	0	2	0
Future Volume (vph)	4	1060	180	265	726	1	146	1	375	0	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1455	1504		3539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1455	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	1116	189	279	764	1	154	1	395	0	2	0
RTOR Reduction (vph)	0	0	98	0	0	0	0	136	147	0	0	0
Lane Group Flow (vph)	4	1116	91	279	765	0	139	70	58	0	2	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	411	425		55	
v/s Ratio Prot	0.00	c0.32		c0.08	c0.22		c0.08	0.05			c0.00	
v/s Ratio Perm			0.06						0.04			
v/c Ratio	0.17	0.92	0.17	1.04	0.53		0.29	0.17	0.14		0.04	
Uniform Delay, d1	31.2	20.2	14.7	29.5	14.4		17.9	17.3	17.1		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.3	11.5	0.1	66.1	0.4		1.6	0.9	0.7		0.3	
Delay (s)	34.5	31.7	14.8	95.6	14.8		19.5	18.2	17.8		31.3	
Level of Service	C	C	B	F	B		B	B	B		C	
Approach Delay (s)		29.3			36.4			18.4			31.3	
Approach LOS		C			D			B			C	

Intersection Summary

HCM 2000 Control Delay	29.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	11	3	25	8	27	3	586	83	33	690	2
Future Vol, veh/h	0	11	3	25	8	27	3	586	83	33	690	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	3	27	9	29	3	637	90	36	750	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1530	1556	751	1519	1512	682	752	0	0	727	0	0
Stage 1	823	823	-	688	688	-	-	-	-	-	-	-
Stage 2	707	733	-	831	824	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	96	113	411	97	120	450	858	-	-	876	-	-
Stage 1	368	388	-	436	447	-	-	-	-	-	-	-
Stage 2	426	426	-	364	387	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	82	108	411	85	115	450	858	-	-	876	-	-
Mov Cap-2 Maneuver	82	108	-	85	115	-	-	-	-	-	-	-
Stage 1	367	372	-	435	446	-	-	-	-	-	-	-
Stage 2	389	425	-	335	371	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	36.9		50.3		0		0.4	
HCM LOS	E		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	858	-	-	128	142	876	-
HCM Lane V/C Ratio	0.004	-	-	0.119	0.459	0.041	-
HCM Control Delay (s)	9.2	-	-	36.9	50.3	9.3	-
HCM Lane LOS	A	-	-	E	F	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	2.1	0.1	-

Intersection												
Int Delay, s/veh	10.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	4	10	5	76	11	50	7	619	41	25	491	1
Future Vol, veh/h	4	10	5	76	11	50	7	619	41	25	491	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	11	5	83	12	54	8	673	45	27	534	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1334	1323	535	1309	1301	696	535	0	0	718	0	0
Stage 1	589	589	-	712	712	-	-	-	-	-	-	-
Stage 2	745	734	-	597	589	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	131	156	545	136	161	442	1033	-	-	883	-	-
Stage 1	494	495	-	423	436	-	-	-	-	-	-	-
Stage 2	406	426	-	490	495	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	105	150	545	123	155	442	1033	-	-	883	-	-
Mov Cap-2 Maneuver	105	150	-	123	155	-	-	-	-	-	-	-
Stage 1	490	480	-	420	433	-	-	-	-	-	-	-
Stage 2	344	423	-	460	480	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	29.6		92.4		0.1		0.4	
HCM LOS	D		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1033	-	-	167	171	883	-
HCM Lane V/C Ratio	0.007	-	-	0.124	0.871	0.031	-
HCM Control Delay (s)	8.5	-	-	29.6	92.4	9.2	-
HCM Lane LOS	A	-	-	D	F	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	6.2	0.1	-

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	43	102	9	55	95	20	10	202	66	24	158	20
Future Vol, veh/h	43	102	9	55	95	20	10	202	66	24	158	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	111	10	60	103	22	11	220	72	26	172	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.8	10.9	12.1	11
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	28%	32%	12%
Vol Thru, %	73%	66%	56%	78%
Vol Right, %	24%	6%	12%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	278	154	170	202
LT Vol	10	43	55	24
Through Vol	202	102	95	158
RT Vol	66	9	20	20
Lane Flow Rate	302	167	185	220
Geometry Grp	1	1	1	1
Degree of Util (X)	0.433	0.264	0.288	0.328
Departure Headway (Hd)	5.161	5.675	5.617	5.379
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	695	631	637	667
Service Time	3.203	3.724	3.666	3.424
HCM Lane V/C Ratio	0.435	0.265	0.29	0.33
HCM Control Delay	12.1	10.8	10.9	11
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.2	1.1	1.2	1.4

Intersection	
Intersection Delay, s/veh	12.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	112	6	93	138	29	16	151	84	25	206	37
Future Vol, veh/h	17	112	6	93	138	29	16	151	84	25	206	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	122	7	101	150	32	17	164	91	27	224	40
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.2	13.7	12.6	13.4
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	13%	36%	9%
Vol Thru, %	60%	83%	53%	77%
Vol Right, %	33%	4%	11%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	251	135	260	268
LT Vol	16	17	93	25
Through Vol	151	112	138	206
RT Vol	84	6	29	37
Lane Flow Rate	273	147	283	291
Geometry Grp	1	1	1	1
Degree of Util (X)	0.419	0.247	0.455	0.455
Departure Headway (Hd)	5.534	6.063	5.792	5.618
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	647	587	619	638
Service Time	3.609	4.15	3.866	3.69
HCM Lane V/C Ratio	0.422	0.25	0.457	0.456
HCM Control Delay	12.6	11.2	13.7	13.4
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.1	1	2.4	2.4

Intersection

Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	112	12	14	232	0	14	0	8	1	1	1
Future Vol, veh/h	2	112	12	14	232	0	14	0	8	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	122	13	15	252	0	15	0	9	1	1	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.9	7.9	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	64%	2%	6%	33%
Vol Thru, %	0%	89%	94%	33%
Vol Right, %	36%	10%	0%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	126	246	3
LT Vol	14	2	14	1
Through Vol	0	112	232	1
RT Vol	8	12	0	1
Lane Flow Rate	24	137	267	3
Geometry Grp	1	1	1	1
Degree of Util (X)	0.031	0.157	0.304	0.004
Departure Headway (Hd)	4.718	4.128	4.095	4.703
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	763	857	872	765
Service Time	2.718	2.206	2.147	2.704
HCM Lane V/C Ratio	0.031	0.16	0.306	0.004
HCM Control Delay	7.9	8	8.9	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.6	1.3	0

Intersection

Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	312	30	23	221	7	17	2	14	4	2	3
Future Vol, veh/h	2	312	30	23	221	7	17	2	14	4	2	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	339	33	25	240	8	18	2	15	4	2	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.7	9.7	8.5	8.4
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	1%	9%	44%
Vol Thru, %	6%	91%	88%	22%
Vol Right, %	42%	9%	3%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	344	251	9
LT Vol	17	2	23	4
Through Vol	2	312	221	2
RT Vol	14	30	7	3
Lane Flow Rate	36	374	273	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.052	0.445	0.336	0.014
Departure Headway (Hd)	5.188	4.282	4.427	5.274
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	689	841	813	677
Service Time	3.227	2.301	2.448	3.318
HCM Lane V/C Ratio	0.052	0.445	0.336	0.015
HCM Control Delay	8.5	10.7	9.7	8.4
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.2	2.3	1.5	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt
























03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	100	9	159	199	86	40	445	76	48	445	39
Future Volume (veh/h)	35	100	9	159	199	86	40	445	76	48	445	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	105	9	167	209	91	42	468	80	51	468	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	160	14	304	319	271	429	1040	177	417	1153	101
Arrive On Green	0.09	0.09	0.09	0.17	0.17	0.17	0.04	0.34	0.34	0.05	0.35	0.35
Sat Flow, veh/h	1781	1699	146	1781	1870	1585	1781	3038	516	1781	3307	289
Grp Volume(v), veh/h	37	0	114	167	209	91	42	273	275	51	251	258
Grp Sat Flow(s),veh/h/ln	1781	0	1844	1781	1870	1585	1781	1777	1777	1781	1777	1818
Q Serve(g_s), s	1.0	0.0	3.1	4.5	5.5	2.7	0.8	6.3	6.3	0.9	5.6	5.7
Cycle Q Clear(g_c), s	1.0	0.0	3.1	4.5	5.5	2.7	0.8	6.3	6.3	0.9	5.6	5.7
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.29	1.00		0.16
Lane Grp Cap(c), veh/h	168	0	174	304	319	271	429	608	609	417	620	634
V/C Ratio(X)	0.22	0.00	0.65	0.55	0.65	0.34	0.10	0.45	0.45	0.12	0.40	0.41
Avail Cap(c_a), veh/h	610	0	631	610	640	543	521	608	609	497	620	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	23.0	19.9	20.3	19.2	10.4	13.4	13.4	10.4	13.0	13.0
Incr Delay (d2), s/veh	0.7	0.0	4.1	1.5	2.3	0.7	0.1	2.4	2.4	0.1	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.4	1.8	2.4	0.9	0.3	2.4	2.4	0.3	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	0.0	27.1	21.5	22.6	19.9	10.5	15.8	15.9	10.5	14.9	14.9
LnGrp LOS	C	A	C	C	C	B	B	B	B	B	B	B
Approach Vol, veh/h		151			467			590			560	
Approach Delay, s/veh		26.0			21.7			15.5			14.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	22.5		9.5	6.8	22.8		13.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.9	8.3		5.1	2.8	7.7		7.5				
Green Ext Time (p_c), s	0.0	2.2		0.4	0.0	2.0		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				17.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

03/22/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	199	23	114	131	44	24	412	190	121	426	64
Future Volume (veh/h)	52	199	23	114	131	44	24	412	190	121	426	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	209	24	120	138	46	25	434	200	127	448	67
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	302	279	32	216	227	192	405	751	343	391	1130	168
Arrive On Green	0.17	0.17	0.17	0.12	0.12	0.12	0.03	0.32	0.32	0.08	0.36	0.36
Sat Flow, veh/h	1781	1647	189	1781	1870	1585	1781	2370	1082	1781	3103	461
Grp Volume(v), veh/h	55	0	233	120	138	46	25	324	310	127	255	260
Grp Sat Flow(s),veh/h/ln	1781	0	1836	1781	1870	1585	1781	1777	1676	1781	1777	1787
Q Serve(g_s), s	1.5	0.0	6.9	3.6	4.0	1.5	0.5	8.7	8.8	2.6	6.1	6.1
Cycle Q Clear(g_c), s	1.5	0.0	6.9	3.6	4.0	1.5	0.5	8.7	8.8	2.6	6.1	6.1
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.65	1.00		0.26
Lane Grp Cap(c), veh/h	302	0	311	216	227	192	405	563	531	391	647	651
V/C Ratio(X)	0.18	0.00	0.75	0.56	0.61	0.24	0.06	0.58	0.58	0.33	0.39	0.40
Avail Cap(c_a), veh/h	564	0	582	564	592	502	510	563	531	412	647	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	22.5	23.5	23.7	22.6	12.5	16.2	16.3	12.0	13.4	13.4
Incr Delay (d2), s/veh	0.3	0.0	3.6	2.2	2.6	0.6	0.1	4.3	4.6	0.5	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.9	1.5	1.8	0.6	0.2	3.6	3.5	0.9	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	26.1	25.8	26.3	23.2	12.5	20.5	20.9	12.5	15.2	15.3
LnGrp LOS	C	A	C	C	C	C	B	C	C	B	B	B
Approach Vol, veh/h		288			304			659			642	
Approach Delay, s/veh		25.0			25.6			20.4			14.7	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	22.5		14.1	6.1	25.2		11.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	4.6	10.8		8.9	2.5	8.1		6.0				
Green Ext Time (p_c), s	0.0	2.2		0.9	0.0	2.0		1.0				
Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖↗	↖↗		↖	↗	↖↗
Traffic Volume (veh/h)	49	168	19	62	257	73	41	431	47	32	420	60
Future Volume (veh/h)	49	168	19	62	257	73	41	431	47	32	420	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	177	20	65	271	77	43	454	49	34	442	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	608	68	105	368	312	155	1692	180	67	1602	224
Arrive On Green	0.05	0.19	0.19	0.06	0.20	0.20	0.04	0.36	0.36	0.04	0.35	0.35
Sat Flow, veh/h	1781	3223	360	1781	1870	1585	3456	4686	498	1781	4528	633
Grp Volume(v), veh/h	52	97	100	65	271	77	43	328	175	34	330	175
Grp Sat Flow(s),veh/h/ln	1781	1777	1806	1781	1870	1585	1728	1702	1781	1781	1702	1756
Q Serve(g_s), s	1.5	2.4	2.4	1.8	6.9	2.1	0.6	3.5	3.5	1.0	3.5	3.6
Cycle Q Clear(g_c), s	1.5	2.4	2.4	1.8	6.9	2.1	0.6	3.5	3.5	1.0	3.5	3.6
Prop In Lane	1.00		0.20	1.00		1.00	1.00		0.28	1.00		0.36
Lane Grp Cap(c), veh/h	91	335	341	105	368	312	155	1229	643	67	1204	621
V/C Ratio(X)	0.57	0.29	0.29	0.62	0.74	0.25	0.28	0.27	0.27	0.51	0.27	0.28
Avail Cap(c_a), veh/h	175	628	639	175	662	561	340	1229	643	175	1204	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	17.7	17.7	23.4	19.2	17.3	23.5	11.5	11.5	24.0	11.8	11.8
Incr Delay (d2), s/veh	5.5	0.5	0.5	5.8	2.9	0.4	1.0	0.5	1.0	5.9	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.9	0.9	0.8	2.8	0.7	0.2	1.1	1.3	0.5	1.1	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	18.2	18.2	29.2	22.1	17.7	24.5	12.0	12.6	29.9	12.3	12.9
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		249			413			546			539	
Approach Delay, s/veh		20.5			22.4			13.2			13.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	22.9	7.5	14.1	6.8	22.5	7.1	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.0	5.5	3.8	4.4	2.6	5.6	3.5	8.9				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.7	0.0	2.3	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			16.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

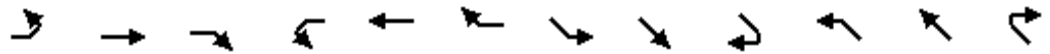
03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↖↗↘		↗	↗↘↖	
Traffic Volume (veh/h)	67	330	53	73	139	43	36	429	75	53	609	60
Future Volume (veh/h)	67	330	53	73	139	43	36	429	75	53	609	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	347	56	77	146	45	38	452	79	56	641	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	538	86	116	334	283	141	1549	265	96	1730	169
Arrive On Green	0.06	0.18	0.18	0.07	0.18	0.18	0.04	0.35	0.35	0.05	0.37	0.37
Sat Flow, veh/h	1781	3068	491	1781	1870	1585	3456	4390	750	1781	4730	461
Grp Volume(v), veh/h	71	200	203	77	146	45	38	348	183	56	460	244
Grp Sat Flow(s),veh/h/ln	1781	1777	1782	1781	1870	1585	1728	1702	1735	1781	1702	1787
Q Serve(g_s), s	2.0	5.3	5.4	2.2	3.5	1.2	0.5	3.8	3.9	1.6	5.1	5.1
Cycle Q Clear(g_c), s	2.0	5.3	5.4	2.2	3.5	1.2	0.5	3.8	3.9	1.6	5.1	5.1
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.43	1.00		0.26
Lane Grp Cap(c), veh/h	111	312	313	116	334	283	141	1201	612	96	1245	654
V/C Ratio(X)	0.64	0.64	0.65	0.66	0.44	0.16	0.27	0.29	0.30	0.59	0.37	0.37
Avail Cap(c_a), veh/h	175	627	629	175	660	559	339	1201	612	175	1245	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	19.5	19.6	23.3	18.7	17.7	23.7	11.9	11.9	23.6	11.9	11.9
Incr Delay (d2), s/veh	6.0	2.2	2.3	6.4	0.9	0.3	1.0	0.6	1.2	5.6	0.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.0	2.1	1.0	1.4	0.4	0.2	1.2	1.4	0.7	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.4	21.7	21.9	29.7	19.6	18.0	24.7	12.5	13.2	29.2	12.7	13.5
LnGrp LOS	C	C	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		474			268			569			760	
Approach Delay, s/veh		22.9			22.2			13.5			14.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	22.5	7.8	13.5	6.6	23.2	7.7	13.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.6	5.9	4.2	7.4	2.5	7.1	4.0	5.5				
Green Ext Time (p_c), s	0.0	2.4	0.0	1.5	0.0	3.1	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay				17.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

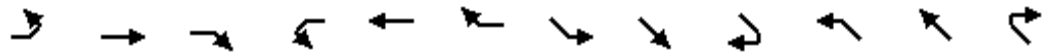
03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↑	↗	↗	↗	↗
Traffic Volume (veh/h)	72	56	50	27	52	21	21	605	52	35	542	24
Future Volume (veh/h)	72	56	50	27	52	21	21	605	52	35	542	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	61	54	29	57	23	23	658	57	38	589	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	49	476	80	120	476	47	815	691	70	797	35
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.03	0.44	0.44	0.04	0.45	0.45
Sat Flow, veh/h	0	162	1585	0	398	1585	1781	1870	1585	1781	1778	78
Grp Volume(v), veh/h	139	0	54	86	0	23	23	658	57	38	0	615
Grp Sat Flow(s),veh/h/ln	162	0	1585	398	0	1585	1781	1870	1585	1781	0	1856
Q Serve(g_s), s	0.0	0.0	1.5	0.0	0.0	0.6	0.8	18.4	1.3	1.3	0.0	16.4
Cycle Q Clear(g_c), s	18.0	0.0	1.5	18.0	0.0	0.6	0.8	18.4	1.3	1.3	0.0	16.4
Prop In Lane	0.56		1.00	0.34		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	142	0	476	200	0	476	47	815	691	70	0	832
V/C Ratio(X)	0.98	0.00	0.11	0.43	0.00	0.05	0.49	0.81	0.08	0.55	0.00	0.74
Avail Cap(c_a), veh/h	142	0	476	200	0	476	148	815	691	148	0	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	15.2	17.1	0.0	14.9	28.8	14.7	9.9	28.3	0.0	13.6
Incr Delay (d2), s/veh	67.9	0.0	0.1	1.5	0.0	0.0	7.6	8.4	0.2	6.5	0.0	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.5	0.9	0.0	0.2	0.4	8.7	0.4	0.6	0.0	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.9	0.0	15.3	18.5	0.0	15.0	36.4	23.1	10.1	34.8	0.0	19.5
LnGrp LOS	F	A	B	B	A	B	D	C	B	C	A	B
Approach Vol, veh/h		193			109			738				653
Approach Delay, s/veh		70.5			17.8			22.6				20.4
Approach LOS		E			B			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	31.4		22.5	6.8	30.7		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.8	18.4		20.0	3.3	20.4		20.0				
Green Ext Time (p_c), s	0.0	1.9		0.0	0.0	1.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	27	32	43	52	31	59	11	490	37	20	580	28
Future Volume (veh/h)	27	32	43	52	31	59	11	490	37	20	580	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	35	47	57	34	64	12	533	40	22	630	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	75	476	98	37	476	27	841	712	46	814	39
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.02	0.45	0.45	0.03	0.46	0.46
Sat Flow, veh/h	0	250	1585	0	124	1585	1781	1870	1585	1781	1771	84
Grp Volume(v), veh/h	64	0	47	91	0	64	12	533	40	22	0	660
Grp Sat Flow(s),veh/h/ln	250	0	1585	124	0	1585	1781	1870	1585	1781	0	1855
Q Serve(g_s), s	0.0	0.0	1.3	0.0	0.0	1.8	0.4	13.2	0.9	0.7	0.0	17.9
Cycle Q Clear(g_c), s	18.0	0.0	1.3	18.0	0.0	1.8	0.4	13.2	0.9	0.7	0.0	17.9
Prop In Lane	0.45		1.00	0.63		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	162	0	476	135	0	476	27	841	712	46	0	853
V/C Ratio(X)	0.39	0.00	0.10	0.68	0.00	0.13	0.45	0.63	0.06	0.48	0.00	0.77
Avail Cap(c_a), veh/h	162	0	476	135	0	476	148	841	712	148	0	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	0.0	15.1	22.9	0.0	15.3	29.3	12.7	9.3	28.8	0.0	13.6
Incr Delay (d2), s/veh	1.6	0.0	0.1	12.5	0.0	0.1	11.1	3.6	0.2	7.7	0.0	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.4	1.7	0.0	0.6	0.2	5.7	0.3	0.4	0.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	0.0	15.2	35.4	0.0	15.4	40.4	16.3	9.5	36.6	0.0	20.3
LnGrp LOS	B	A	B	D	A	B	D	B	A	D	A	C
Approach Vol, veh/h		111			155			585				682
Approach Delay, s/veh		17.3			27.2			16.4				20.9
Approach LOS		B			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	32.1		22.5	6.0	31.5		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.4	19.9		20.0	2.7	15.2		20.0				
Green Ext Time (p_c), s	0.0	1.6		0.0	0.0	2.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary

19: 1st St & Indian Hill Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	17	38	77	36	47	60	611	152	34	555	27
Future Volume (veh/h)	7	17	38	77	36	47	60	611	152	34	555	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	18	41	84	39	51	65	664	165	37	603	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	204	173	255	80	105	544	1174	995	468	1081	52
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.06	0.63	0.63	0.04	0.61	0.61
Sat Flow, veh/h	1307	1870	1585	1344	735	962	1781	1870	1585	1781	1770	85
Grp Volume(v), veh/h	8	18	41	84	0	90	65	664	165	37	0	632
Grp Sat Flow(s),veh/h/ln	1307	1870	1585	1344	0	1697	1781	1870	1585	1781	0	1855
Q Serve(g_s), s	0.3	0.5	1.4	3.6	0.0	3.0	0.8	12.3	2.6	0.4	0.0	12.1
Cycle Q Clear(g_c), s	3.3	0.5	1.4	4.1	0.0	3.0	0.8	12.3	2.6	0.4	0.0	12.1
Prop In Lane	1.00		1.00	1.00		0.57	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	197	204	173	255	0	185	544	1174	995	468	0	1133
V/C Ratio(X)	0.04	0.09	0.24	0.33	0.00	0.49	0.12	0.57	0.17	0.08	0.00	0.56
Avail Cap(c_a), veh/h	447	561	476	512	0	509	597	1174	995	548	0	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.74	0.74	0.74	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.7	24.0	24.5	25.9	0.0	25.2	4.8	6.4	4.6	4.9	0.0	6.9
Incr Delay (d2), s/veh	0.1	0.2	0.7	0.7	0.0	2.0	0.1	1.5	0.3	0.1	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.5	1.2	0.0	1.3	0.2	3.9	0.7	0.1	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	24.2	25.1	26.7	0.0	27.1	4.9	7.9	4.9	5.0	0.0	8.9
LnGrp LOS	C	C	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		67			174			894			669	
Approach Delay, s/veh		25.1			26.9			7.1			8.7	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	42.2		11.0	7.8	41.2		11.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	2.4	14.3		5.3	2.8	14.1		6.1				
Green Ext Time (p_c), s	0.0	3.5		0.1	0.0	3.1		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				10.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷		↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	29	49	92	125	64	93	107	503	128	38	505	67
Future Volume (veh/h)	29	49	92	125	64	93	107	503	128	38	505	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	53	100	136	70	101	116	547	139	41	549	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	333	282	310	123	178	473	1040	881	475	850	113
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.07	0.56	0.56	0.04	0.53	0.53
Sat Flow, veh/h	1214	1870	1585	1234	692	999	1781	1870	1585	1781	1617	215
Grp Volume(v), veh/h	32	53	100	136	0	171	116	547	139	41	0	622
Grp Sat Flow(s),veh/h/ln	1214	1870	1585	1234	0	1691	1781	1870	1585	1781	0	1832
Q Serve(g_s), s	1.5	1.4	3.3	6.3	0.0	5.6	1.7	11.0	2.6	0.6	0.0	14.6
Cycle Q Clear(g_c), s	7.0	1.4	3.3	7.7	0.0	5.6	1.7	11.0	2.6	0.6	0.0	14.6
Prop In Lane	1.00		1.00	1.00		0.59	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	224	333	282	310	0	301	473	1040	881	475	0	963
V/C Ratio(X)	0.14	0.16	0.35	0.44	0.00	0.57	0.25	0.53	0.16	0.09	0.00	0.65
Avail Cap(c_a), veh/h	372	561	476	461	0	507	498	1040	881	550	0	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	20.9	21.6	24.1	0.0	22.6	7.3	8.4	6.5	6.5	0.0	10.2
Incr Delay (d2), s/veh	0.3	0.2	0.8	1.0	0.0	1.7	0.2	1.5	0.3	0.1	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.6	1.2	1.8	0.0	2.2	0.5	3.9	0.8	0.2	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.1	21.1	22.4	25.1	0.0	24.2	7.5	9.9	6.8	6.6	0.0	13.6
LnGrp LOS	C	C	C	C	A	C	A	A	A	A	A	B
Approach Vol, veh/h		185			307			802				663
Approach Delay, s/veh		22.7			24.6			9.0				13.1
Approach LOS		C			C			A				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	37.8		15.2	8.8	36.0		15.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	2.6	13.0		9.0	3.7	16.6		9.7				
Green Ext Time (p_c), s	0.0	3.0		0.4	0.0	2.4		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				14.1								
HCM 6th LOS				B								

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	27	74	30	23	92	41	30	236	28	36	163	16
Future Vol, veh/h	27	74	30	23	92	41	30	236	28	36	163	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	80	33	25	100	45	33	257	30	39	177	17
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10	10.1	14.4	12.3
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	10%	100%	0%	0%	100%	0%	0%	17%
Vol Thru, %	80%	0%	100%	0%	0%	100%	0%	76%
Vol Right, %	10%	0%	0%	100%	0%	0%	100%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	294	27	74	30	23	92	41	215
LT Vol	30	27	0	0	23	0	0	36
Through Vol	236	0	74	0	0	92	0	163
RT Vol	28	0	0	30	0	0	41	16
Lane Flow Rate	320	29	80	33	25	100	45	234
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.511	0.057	0.145	0.052	0.048	0.179	0.071	0.384
Departure Headway (Hd)	5.751	7.009	6.496	5.778	6.961	6.449	5.731	5.912
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	626	510	551	618	514	555	623	608
Service Time	3.485	4.762	4.249	3.531	4.712	4.199	3.481	3.65
HCM Lane V/C Ratio	0.511	0.057	0.145	0.053	0.049	0.18	0.072	0.385
HCM Control Delay	14.4	10.2	10.4	8.9	10.1	10.6	8.9	12.3
HCM Lane LOS	B	B	B	A	B	B	A	B
HCM 95th-tile Q	2.9	0.2	0.5	0.2	0.2	0.6	0.2	1.8

Intersection	
Intersection Delay, s/veh	16.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑	↖	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	35	117	68	42	137	42	42	131	50	42	264	52
Future Vol, veh/h	35	117	68	42	137	42	42	131	50	42	264	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	127	74	46	149	46	46	142	54	46	287	57
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	11.5	12.1	14.9	23
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	19%	100%	0%	0%	100%	0%	0%	12%
Vol Thru, %	59%	0%	100%	0%	0%	100%	0%	74%
Vol Right, %	22%	0%	0%	100%	0%	0%	100%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	35	117	68	42	137	42	358
LT Vol	42	35	0	0	42	0	0	42
Through Vol	131	0	117	0	0	137	0	264
RT Vol	50	0	0	68	0	0	42	52
Lane Flow Rate	242	38	127	74	46	149	46	389
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.452	0.082	0.255	0.133	0.098	0.298	0.082	0.701
Departure Headway (Hd)	6.713	7.73	7.213	6.488	7.714	7.196	6.472	6.487
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	536	463	497	551	464	499	552	560
Service Time	4.458	5.481	4.964	4.239	5.465	4.948	4.223	4.187
HCM Lane V/C Ratio	0.451	0.082	0.256	0.134	0.099	0.299	0.083	0.695
HCM Control Delay	14.9	11.2	12.4	10.2	11.3	13	9.8	23
HCM Lane LOS	B	B	B	B	B	B	A	C
HCM 95th-tile Q	2.3	0.3	1	0.5	0.3	1.2	0.3	5.5

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	0	44	8	0	1	115	504	6	1	480	113
Future Volume (veh/h)	44	0	44	8	0	1	115	504	6	1	480	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	0	48	9	0	1	125	548	7	1	522	123
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	113	96	22	0	20	643	2638	34	689	2609	1164
Arrive On Green	0.06	0.00	0.06	0.01	0.00	0.01	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	785	3593	46	854	3554	1585
Grp Volume(v), veh/h	48	0	48	9	0	1	125	271	284	1	522	123
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	785	1777	1862	854	1777	1585
Q Serve(g_s), s	1.8	0.0	2.1	0.4	0.0	0.0	4.1	3.3	3.4	0.0	3.2	1.6
Cycle Q Clear(g_c), s	1.8	0.0	2.1	0.4	0.0	0.0	7.3	3.3	3.4	3.4	3.2	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	108	113	96	22	0	20	643	1304	1367	689	2609	1164
V/C Ratio(X)	0.45	0.00	0.50	0.40	0.00	0.05	0.19	0.21	0.21	0.00	0.20	0.11
Avail Cap(c_a), veh/h	458	481	408	458	0	408	643	1304	1367	689	2609	1164
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	31.8	0.0	31.9	34.3	0.0	34.1	4.0	2.9	2.9	3.4	2.9	2.7
Incr Delay (d2), s/veh	2.9	0.0	4.0	11.1	0.0	1.0	0.7	0.4	0.3	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.9	0.2	0.0	0.0	0.5	0.7	0.8	0.0	0.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	0.0	35.9	45.4	0.0	35.2	4.7	3.3	3.3	3.5	3.1	2.9
LnGrp LOS	C	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		96			10			680			646	
Approach Delay, s/veh		35.3			44.4			3.5			3.0	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.9		8.7		55.9		5.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		18.0		20.5		18.0				
Max Q Clear Time (g_c+I1), s		9.3		4.1		5.4		2.4				
Green Ext Time (p_c), s		3.0		0.2		3.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			5.7									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	3	116	4	0	1	67	449	7	2	443	104
Future Volume (veh/h)	148	3	116	4	0	1	67	449	7	2	443	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	161	3	126	4	0	1	73	488	8	2	482	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	233	197	12	0	10	617	2419	40	666	2403	1072
Arrive On Green	0.12	0.12	0.12	0.01	0.00	0.01	0.68	0.68	0.68	0.68	0.68	0.68
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	823	3578	59	901	3554	1585
Grp Volume(v), veh/h	161	3	126	4	0	1	73	242	254	2	482	113
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	823	1777	1860	901	1777	1585
Q Serve(g_s), s	6.1	0.1	5.3	0.2	0.0	0.0	2.6	3.6	3.6	0.1	3.6	1.7
Cycle Q Clear(g_c), s	6.1	0.1	5.3	0.2	0.0	0.0	6.1	3.6	3.6	3.6	3.6	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	222	233	197	12	0	10	617	1201	1257	666	2403	1072
V/C Ratio(X)	0.73	0.01	0.64	0.34	0.00	0.10	0.12	0.20	0.20	0.00	0.20	0.11
Avail Cap(c_a), veh/h	471	494	419	458	0	408	617	1201	1257	666	2403	1072
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	29.5	26.9	29.1	34.6	0.0	34.6	5.4	4.3	4.3	4.9	4.2	4.0
Incr Delay (d2), s/veh	4.5	0.0	3.4	16.1	0.0	3.9	0.4	0.4	0.4	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	2.1	0.1	0.0	0.0	0.4	1.0	1.0	0.0	0.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	26.9	32.6	50.7	0.0	38.4	5.8	4.6	4.6	4.9	4.4	4.1
LnGrp LOS	C	C	C	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		290			5			569			597	
Approach Delay, s/veh		33.3			48.2			4.8			4.4	
Approach LOS		C			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		51.8		13.2		51.8		5.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.5		20.0		18.0				
Max Q Clear Time (g_c+I1), s		8.1		8.1		5.6		2.2				
Green Ext Time (p_c), s		2.5		0.7		2.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				10.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 22: Arrow Hwy & Indian Hill Blvd

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	84	407	149	175	735	93	152	626	175	72	513	45
Future Volume (veh/h)	84	407	149	175	735	93	152	626	175	72	513	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	442	162	190	799	101	165	680	190	78	558	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	723	323	229	948	423	203	1320	589	100	1038	91
Arrive On Green	0.07	0.20	0.20	0.13	0.27	0.27	0.11	0.37	0.37	0.06	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3305	290
Grp Volume(v), veh/h	91	442	162	190	799	101	165	680	190	78	299	308
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1818
Q Serve(g_s), s	3.8	8.5	6.8	7.8	16.0	3.7	6.8	11.2	6.4	3.2	10.4	10.5
Cycle Q Clear(g_c), s	3.8	8.5	6.8	7.8	16.0	3.7	6.8	11.2	6.4	3.2	10.4	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	117	723	323	229	948	423	203	1320	589	100	558	571
V/C Ratio(X)	0.78	0.61	0.50	0.83	0.84	0.24	0.81	0.52	0.32	0.78	0.54	0.54
Avail Cap(c_a), veh/h	157	853	380	249	1038	463	226	1320	589	143	558	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	34.5	27.2	26.5	31.9	26.0	21.5	32.5	18.3	16.8	34.9	21.2	21.2
Incr Delay (d2), s/veh	16.0	1.0	1.2	13.0	4.0	0.2	18.4	1.4	1.4	13.9	3.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.6	2.6	4.1	6.9	1.4	3.9	4.6	2.4	1.7	4.5	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	28.1	27.7	44.9	30.0	21.7	50.9	19.8	18.3	48.8	24.4	24.4
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	C
Approach Vol, veh/h		695			1090			1035			685	
Approach Delay, s/veh		31.0			31.8			24.5			27.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	32.4	14.2	19.8	13.0	28.0	9.4	24.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.0	22.5	10.5	18.0	9.5	19.0	6.6	21.9				
Max Q Clear Time (g_c+I1), s	5.2	13.2	9.8	10.5	8.8	12.5	5.8	18.0				
Green Ext Time (p_c), s	0.0	3.6	0.0	2.1	0.0	1.9	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay				28.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

22: Arrow Hwy & Indian Hill Blvd

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	103	903	167	213	524	58	149	517	183	130	595	59
Future Volume (veh/h)	103	903	167	213	524	58	149	517	183	130	595	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	982	182	232	570	63	162	562	199	141	647	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	1035	462	256	1260	562	189	875	390	167	764	75
Arrive On Green	0.08	0.29	0.29	0.14	0.35	0.35	0.11	0.25	0.25	0.09	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3266	323
Grp Volume(v), veh/h	112	982	182	232	570	63	162	562	199	141	352	359
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1812
Q Serve(g_s), s	4.9	21.7	7.4	10.3	9.9	2.1	7.2	11.3	8.7	6.2	15.1	15.2
Cycle Q Clear(g_c), s	4.9	21.7	7.4	10.3	9.9	2.1	7.2	11.3	8.7	6.2	15.1	15.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	143	1035	462	256	1260	562	189	875	390	167	415	424
V/C Ratio(X)	0.78	0.95	0.39	0.91	0.45	0.11	0.86	0.64	0.51	0.84	0.85	0.85
Avail Cap(c_a), veh/h	236	1035	462	256	1260	562	189	875	390	167	415	424
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	36.1	27.8	22.7	33.7	19.8	17.4	35.1	27.0	26.0	35.7	29.3	29.3
Incr Delay (d2), s/veh	8.9	17.0	0.5	29.6	0.2	0.1	29.9	3.6	4.7	25.1	15.1	15.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	11.2	2.7	6.4	3.9	0.8	4.6	5.1	3.7	3.8	7.9	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	44.8	23.2	63.3	20.1	17.4	65.1	30.6	30.7	60.7	44.4	44.3
LnGrp LOS	D	D	C	E	C	B	E	C	C	E	D	D
Approach Vol, veh/h		1276			865			923			852	
Approach Delay, s/veh		41.7			31.5			36.7			47.1	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	24.2	16.0	27.8	13.0	23.2	10.9	32.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	19.7	11.5	23.3	8.5	18.7	10.6	24.2				
Max Q Clear Time (g_c+I1), s	8.2	13.3	12.3	23.7	9.2	17.2	6.9	11.9				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	0.7	0.1	3.2				
Intersection Summary												
HCM 6th Ctrl Delay											39.4	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	536	34	40	898	75	39	136	16	69	99	68
Future Volume (veh/h)	56	536	34	40	898	75	39	136	16	69	99	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	583	37	43	976	82	42	148	17	75	108	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	1411	89	381	1379	116	175	551	57	680	756	641
Arrive On Green	0.42	0.42	0.42	0.42	0.42	0.42	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	533	3393	215	804	3318	279	219	1363	142	1221	1870	1585
Grp Volume(v), veh/h	61	305	315	43	523	535	207	0	0	75	108	74
Grp Sat Flow(s),veh/h/ln	533	1777	1832	804	1777	1820	1723	0	0	1221	1870	1585
Q Serve(g_s), s	5.3	6.1	6.1	2.0	12.2	12.2	0.0	0.0	0.0	0.0	1.8	1.5
Cycle Q Clear(g_c), s	17.5	6.1	6.1	8.1	12.2	12.2	3.8	0.0	0.0	1.3	1.8	1.5
Prop In Lane	1.00		0.12	1.00		0.15	0.20		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	236	739	761	381	739	757	783	0	0	680	756	641
V/C Ratio(X)	0.26	0.41	0.41	0.11	0.71	0.71	0.26	0.00	0.00	0.11	0.14	0.12
Avail Cap(c_a), veh/h	254	800	824	408	800	819	783	0	0	680	756	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.61	0.61	0.61	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	10.3	10.3	13.2	12.1	12.1	10.0	0.0	0.0	9.3	9.4	9.3
Incr Delay (d2), s/veh	0.5	0.3	0.3	0.1	1.6	1.6	0.8	0.0	0.0	0.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.0	2.1	0.3	4.2	4.3	1.5	0.0	0.0	0.5	0.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.8	10.6	10.6	13.2	13.7	13.7	10.8	0.0	0.0	9.6	9.8	9.7
LnGrp LOS	B	B	B	B	B	B	B	A	A	A	A	A
Approach Vol, veh/h		681			1101			207			257	
Approach Delay, s/veh		11.4			13.7			10.8			9.7	
Approach LOS		B			B			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.7		25.3		24.7		25.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		5.8		19.5		3.8		14.2				
Green Ext Time (p_c), s		0.9		1.3		0.9		4.4				
Intersection Summary												
HCM 6th Ctrl Delay				12.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘			↕		↗	↗	↗
Traffic Volume (veh/h)	69	1036	31	24	639	47	33	54	49	119	132	115
Future Volume (veh/h)	69	1036	31	24	639	47	33	54	49	119	132	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	1126	34	26	695	51	36	59	53	129	143	125
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	1428	43	205	1361	100	203	319	242	702	775	657
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	715	3522	106	484	3357	246	275	770	583	1281	1870	1585
Grp Volume(v), veh/h	75	568	592	26	368	378	148	0	0	129	143	125
Grp Sat Flow(s),veh/h/ln	715	1777	1851	484	1777	1826	1628	0	0	1281	1870	1585
Q Serve(g_s), s	4.4	14.0	14.0	2.5	7.8	7.8	0.0	0.0	0.0	0.0	2.4	2.5
Cycle Q Clear(g_c), s	12.2	14.0	14.0	16.5	7.8	7.8	2.7	0.0	0.0	2.3	2.4	2.5
Prop In Lane	1.00		0.06	1.00		0.13	0.24		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	323	721	751	205	721	740	764	0	0	702	775	657
V/C Ratio(X)	0.23	0.79	0.79	0.13	0.51	0.51	0.19	0.00	0.00	0.18	0.18	0.19
Avail Cap(c_a), veh/h	355	800	833	227	800	822	764	0	0	702	775	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.40	0.40	0.40	0.84	0.84	0.84	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	13.0	13.0	20.2	11.1	11.1	9.4	0.0	0.0	9.2	9.3	9.3
Incr Delay (d2), s/veh	0.1	2.0	1.9	0.2	0.5	0.5	0.6	0.0	0.0	0.6	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.9	5.1	0.3	2.6	2.7	1.0	0.0	0.0	0.8	0.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.9	15.0	14.9	20.4	11.6	11.6	9.9	0.0	0.0	9.8	9.8	9.9
LnGrp LOS	B	B	B	C	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1235			772			148			397	
Approach Delay, s/veh		15.0			11.9			9.9			9.9	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.2		24.8		25.2		24.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		4.7		16.0		4.5		18.5				
Green Ext Time (p_c), s		0.6		4.1		1.4		1.8				
Intersection Summary												
HCM 6th Ctrl Delay				13.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕		↖	↕		↖	↕	↖
Traffic Volume (veh/h)	157	399	36	38	667	88	96	366	51	55	230	225
Future Volume (veh/h)	157	399	36	38	667	88	96	366	51	55	230	225
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	434	39	41	725	96	104	398	55	60	250	245
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	1109	99	70	812	107	133	999	137	88	548	464
Arrive On Green	0.12	0.34	0.34	0.04	0.26	0.26	0.07	0.32	0.32	0.05	0.29	0.29
Sat Flow, veh/h	1781	3299	295	1781	3155	417	1781	3139	431	1781	1870	1585
Grp Volume(v), veh/h	171	233	240	41	408	413	104	224	229	60	250	245
Grp Sat Flow(s),veh/h/ln	1781	1777	1817	1781	1777	1795	1781	1777	1793	1781	1870	1585
Q Serve(g_s), s	6.6	7.0	7.1	1.6	15.5	15.5	4.0	6.9	7.0	2.3	7.6	9.0
Cycle Q Clear(g_c), s	6.6	7.0	7.1	1.6	15.5	15.5	4.0	6.9	7.0	2.3	7.6	9.0
Prop In Lane	1.00		0.16	1.00		0.23	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	210	597	611	70	457	462	133	566	571	88	548	464
V/C Ratio(X)	0.81	0.39	0.39	0.59	0.89	0.89	0.78	0.40	0.40	0.68	0.46	0.53
Avail Cap(c_a), veh/h	216	597	611	150	470	474	140	566	571	127	548	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	17.8	17.8	33.1	25.1	25.1	31.8	18.6	18.6	32.7	20.2	20.7
Incr Delay (d2), s/veh	19.1	0.4	0.4	7.6	18.7	18.7	23.5	2.1	2.1	9.1	2.7	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.6	2.7	0.8	8.3	8.3	2.5	2.9	3.0	1.2	3.6	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	18.1	18.2	40.6	43.8	43.7	55.4	20.7	20.7	41.8	22.9	24.9
LnGrp LOS	D	B	B	D	D	D	E	C	C	D	C	C
Approach Vol, veh/h		644			862			557			555	
Approach Delay, s/veh		26.4			43.6			27.2			25.9	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	26.8	7.2	28.0	9.7	25.0	12.7	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	20.0	5.9	21.1	5.5	19.5	8.5	18.5				
Max Q Clear Time (g_c+I1), s	4.3	9.0	3.6	9.1	6.0	11.0	8.6	17.5				
Green Ext Time (p_c), s	0.0	1.9	0.0	2.0	0.0	1.6	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				32.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	952	54	72	460	53	78	297	64	88	318	201
Future Volume (veh/h)	177	952	54	72	460	53	78	297	64	88	318	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	1035	59	78	500	58	85	323	70	96	346	218
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	1133	65	100	825	95	109	884	189	123	582	493
Arrive On Green	0.13	0.33	0.33	0.06	0.26	0.26	0.06	0.30	0.30	0.07	0.31	0.31
Sat Flow, veh/h	1781	3417	195	1781	3209	371	1781	2912	623	1781	1870	1585
Grp Volume(v), veh/h	192	538	556	78	276	282	85	195	198	96	346	218
Grp Sat Flow(s),veh/h/ln	1781	1777	1835	1781	1777	1804	1781	1777	1758	1781	1870	1585
Q Serve(g_s), s	7.9	21.8	21.8	3.2	10.2	10.3	3.5	6.5	6.6	4.0	11.7	8.2
Cycle Q Clear(g_c), s	7.9	21.8	21.8	3.2	10.2	10.3	3.5	6.5	6.6	4.0	11.7	8.2
Prop In Lane	1.00		0.11	1.00		0.21	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	232	589	608	100	457	464	109	539	533	123	582	493
V/C Ratio(X)	0.83	0.91	0.91	0.78	0.60	0.61	0.78	0.36	0.37	0.78	0.59	0.44
Avail Cap(c_a), veh/h	278	604	624	131	457	464	150	539	533	154	582	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	24.0	24.0	34.9	24.5	24.5	34.7	20.4	20.5	34.4	21.8	20.6
Incr Delay (d2), s/veh	10.7	12.9	12.6	19.6	2.2	2.3	16.1	1.9	2.0	18.0	4.4	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	10.1	10.4	1.9	4.3	4.4	2.0	2.8	2.8	2.3	5.7	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	36.9	36.6	54.5	26.8	26.8	50.8	22.3	22.5	52.3	26.3	23.5
LnGrp LOS	D	D	D	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1286			636			478			660	
Approach Delay, s/veh		37.6			30.2			27.5			29.1	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	27.3	8.7	29.4	9.1	27.8	14.3	23.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.5	19.5	5.5	25.5	6.3	19.7	11.7	19.3				
Max Q Clear Time (g_c+I1), s	6.0	8.6	5.2	23.8	5.5	13.7	9.9	12.3				
Green Ext Time (p_c), s	0.0	1.6	0.0	1.1	0.0	1.6	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			32.7									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	33	0	127	0	0	0	53	432	0	0	419	27
Future Volume (veh/h)	33	0	127	0	0	0	53	432	0	0	419	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	0	138	0	0	0	58	470	0	0	455	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	0	185	2	2	0	81	2739	1222	2	2378	1061
Arrive On Green	0.06	0.00	0.12	0.00	0.00	0.00	0.05	0.77	0.00	0.00	0.67	0.67
Sat Flow, veh/h	1781	0	1585	1781	1870	0	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	36	0	138	0	0	0	58	470	0	0	455	29
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.5	0.0	6.7	0.0	0.0	0.0	2.6	2.8	0.0	0.0	3.9	0.5
Cycle Q Clear(g_c), s	1.5	0.0	6.7	0.0	0.0	0.0	2.6	2.8	0.0	0.0	3.9	0.5
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	0	185	2	2	0	81	2739	1222	2	2378	1061
V/C Ratio(X)	0.33	0.00	0.75	0.00	0.00	0.00	0.72	0.17	0.00	0.00	0.19	0.03
Avail Cap(c_a), veh/h	401	0	614	111	421	0	154	2739	1222	111	2378	1061
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh	36.0	0.0	34.2	0.0	0.0	0.0	37.7	2.4	0.0	0.0	5.0	4.5
Incr Delay (d2), s/veh	1.7	0.0	5.9	0.0	0.0	0.0	11.3	0.1	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.9	0.0	0.0	0.0	1.3	0.5	0.0	0.0	1.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	0.0	40.0	0.0	0.0	0.0	49.0	2.6	0.0	0.0	5.2	4.5
LnGrp LOS	D	A	D	A	A	A	D	A	A	A	A	A
Approach Vol, veh/h		174			0			528			484	
Approach Delay, s/veh		39.6			0.0			7.7			5.1	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	66.2	0.0	13.8	8.1	58.0	9.4	4.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	21.0	5.0	31.0	6.9	19.1	18.0	18.0				
Max Q Clear Time (g_c+I1), s	0.0	4.8	0.0	8.7	4.6	5.9	3.5	0.0				
Green Ext Time (p_c), s	0.0	2.6	0.0	0.8	0.0	2.4	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1	128	45	7	30	61	522	3	5	451	32
Future Volume (veh/h)	50	1	128	45	7	30	61	522	3	5	451	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	1	139	49	8	33	66	567	3	5	490	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	1	188	74	31	130	86	2159	963	12	2011	897
Arrive On Green	0.06	0.12	0.12	0.04	0.10	0.10	0.05	0.61	0.61	0.01	0.57	0.57
Sat Flow, veh/h	1781	11	1575	1781	319	1315	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	54	0	140	49	0	41	66	567	3	5	490	35
Grp Sat Flow(s),veh/h/ln	1781	0	1587	1781	0	1634	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.3	0.0	6.8	2.2	0.0	1.9	2.9	6.0	0.1	0.2	5.6	0.8
Cycle Q Clear(g_c), s	2.3	0.0	6.8	2.2	0.0	1.9	2.9	6.0	0.1	0.2	5.6	0.8
Prop In Lane	1.00		0.99	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	190	74	0	161	86	2159	963	12	2011	897
V/C Ratio(X)	0.49	0.00	0.74	0.66	0.00	0.25	0.77	0.26	0.00	0.43	0.24	0.04
Avail Cap(c_a), veh/h	401	0	585	145	0	368	160	2159	963	111	2011	897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	36.3	0.0	34.0	37.8	0.0	33.3	37.6	7.3	6.2	39.6	8.7	7.7
Incr Delay (d2), s/veh	3.3	0.0	5.5	9.8	0.0	0.8	13.5	0.3	0.0	21.7	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.9	1.1	0.0	0.8	1.5	1.9	0.0	0.2	1.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	0.0	39.5	47.5	0.0	34.1	51.1	7.6	6.2	61.3	9.0	7.8
LnGrp LOS	D	A	D	D	A	C	D	A	A	E	A	A
Approach Vol, veh/h		194			90			636			530	
Approach Delay, s/veh		39.6			41.4			12.1			9.4	
Approach LOS		D			D			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	53.1	7.8	14.1	8.3	49.8	9.5	12.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	21.0	6.5	29.5	7.2	18.8	18.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	8.0	4.2	8.8	4.9	7.6	4.3	3.9				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.8	0.0	2.4	0.1	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			16.6									
HCM 6th LOS			B									

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	40	0	0	61	0	0
Future Vol, veh/h	40	0	0	61	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	0	0	66	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 22
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	- 0	- 0 1050
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 1050
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	72	0	2	62	0	22
Future Vol, veh/h	72	0	2	62	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	0	2	67	0	24

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	78	0	- 39
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	- 6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	- 3.32
Pot Cap-1 Maneuver	-	-	1518	-	0 1024
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1518	-	- 1024
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1024	-	-	1518	-
HCM Lane V/C Ratio	0.023	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	16	0	0	15
Future Vol, veh/h	0	0	16	0	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	17	0	0	16

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	9	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1070	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	1070	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	22	21	0	0	67
Future Vol, veh/h	0	22	21	0	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	24	23	0	0	73

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	12	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	1065	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1065	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 1065	-
HCM Lane V/C Ratio	-	- 0.022	-
HCM Control Delay (s)	-	- 8.5	-
HCM Lane LOS	-	- A	-
HCM 95th %tile Q(veh)	-	- 0.1	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	18	13	0
Future Vol, veh/h	0	0	0	18	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	19	14	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	7	14	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-
Pot Cap-1 Maneuver	0	909	1137	-	-
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	909	1137	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1137	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	22	1	18	24	1
Future Vol, veh/h	0	22	1	18	24	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	23	1	19	25	1

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	13	26	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-
Pot Cap-1 Maneuver	0	901	1123	-	-
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	901	1123	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1123	-	901	-	-
HCM Lane V/C Ratio	0.001	-	0.026	-	-
HCM Control Delay (s)	8.2	-	9.1	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

03/20/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↗	↖	↕		↖	↗	↖
Traffic Volume (veh/h)	0	0	0	70	0	76	0	464	54	58	536	1
Future Volume (veh/h)	0	0	0	70	0	76	0	464	54	58	536	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	74	0	80	0	488	57	61	564	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	127	198	168	5	1524	177	216	3456	6
Arrive On Green	0.00	0.00	0.00	0.07	0.00	0.11	0.00	0.48	0.48	0.06	0.66	0.66
Sat Flow, veh/h	0	-59738	0	1781	1870	1585	1781	3207	373	3456	5263	9
Grp Volume(v), veh/h	0	0	0	74	0	80	0	270	275	61	365	200
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1803	1728	1702	1869
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	1.8	0.0	3.6	3.6	0.6	1.6	1.6
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5	0.0	1.8	0.0	3.6	3.6	0.6	1.6	1.6
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.21	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	127	198	168	5	844	857	216	2235	1227
V/C Ratio(X)	0.00	0.00	0.00	0.58	0.00	0.48	0.00	0.32	0.32	0.28	0.16	0.16
Avail Cap(c_a), veh/h	0	889	0	235	889	753	235	844	857	456	2235	1227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	17.0	0.0	15.9	0.0	6.1	6.2	16.9	2.5	2.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.2	0.0	2.1	0.0	1.0	1.0	0.7	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.6	0.0	0.9	0.9	0.2	0.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	21.2	0.0	18.0	0.0	7.1	7.1	17.7	2.7	2.8
LnGrp LOS	A	A	A	C	A	B	A	A	A	B	A	A
Approach Vol, veh/h		0			154			545			626	
Approach Delay, s/veh		0.0			19.6			7.1			4.2	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	22.5	7.2	1.3	0.0	29.4		8.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.6	5.6	3.5	0.0	0.0	3.6		3.8				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	3.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				7.2								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

03/22/2024



























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↗	↖	↕		↖	↗	↖
Traffic Volume (veh/h)	0	0	0	89	0	74	1	592	75	35	707	0
Future Volume (veh/h)	0	0	0	89	0	74	1	592	75	35	707	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	94	0	78	1	623	79	37	744	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	149	209	177	5	1533	194	148	2679	0
Arrive On Green	0.00	0.00	0.00	0.08	0.00	0.11	0.00	0.48	0.48	0.04	0.52	0.00
Sat Flow, veh/h	0	-64583	0	1781	1870	1585	1781	3173	402	3456	5274	0
Grp Volume(v), veh/h	0	0	0	94	0	78	1	348	354	37	744	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1798	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	1.7	0.0	4.7	4.7	0.4	3.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.9	0.0	1.7	0.0	4.7	4.7	0.4	3.0	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.22	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	149	209	177	5	859	869	148	2679	0
V/C Ratio(X)	0.00	0.00	0.00	0.63	0.00	0.44	0.21	0.41	0.41	0.25	0.28	0.00
Avail Cap(c_a), veh/h	0	904	0	239	904	766	239	859	869	464	2679	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.5	0.0	15.5	18.6	6.2	6.2	17.3	4.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.4	0.0	1.7	20.3	1.4	1.4	0.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.8	0.0	0.6	0.0	1.4	1.4	0.1	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	20.9	0.0	17.2	38.9	7.6	7.6	18.1	5.2	0.0
LnGrp LOS	A	A	A	C	A	B	D	A	A	B	A	A
Approach Vol, veh/h		0			172			703			781	
Approach Delay, s/veh		0.0			19.2			7.7			5.8	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	22.5	7.6	1.0	4.6	24.0		8.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.4	6.7	3.9	0.0	2.0	5.0		3.7				
Green Ext Time (p_c), s	0.0	3.4	0.0	0.0	0.0	4.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				8.0								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd
























03/22/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	454	231	371	769	67	131	49	282	36	172	55
Future Volume (veh/h)	33	454	231	371	769	67	131	49	282	36	172	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	493	251	403	836	73	142	53	307	39	187	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	759	338	425	1475	658	438	605	539	297	908	283
Arrive On Green	0.04	0.21	0.21	0.24	0.42	0.42	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1133	1777	1585	1022	2667	830
Grp Volume(v), veh/h	36	493	251	403	836	73	142	53	307	39	123	124
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1133	1777	1585	1022	1777	1721
Q Serve(g_s), s	1.3	8.2	9.6	14.5	11.7	1.8	6.6	1.3	10.3	2.1	3.2	3.3
Cycle Q Clear(g_c), s	1.3	8.2	9.6	14.5	11.7	1.8	10.0	1.3	10.3	12.4	3.2	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	65	759	338	425	1475	658	438	605	539	297	605	586
V/C Ratio(X)	0.55	0.65	0.74	0.95	0.57	0.11	0.32	0.09	0.57	0.13	0.20	0.21
Avail Cap(c_a), veh/h	153	984	439	425	1525	680	438	605	539	297	605	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.60	0.60	0.60	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	23.3	23.9	24.4	14.5	11.7	18.8	14.6	17.5	22.6	15.2	15.2
Incr Delay (d2), s/veh	7.0	1.0	4.8	22.1	0.3	0.0	1.7	0.3	3.8	0.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.3	3.8	8.3	4.3	0.6	1.8	0.5	4.0	0.6	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	24.3	28.7	46.5	14.8	11.7	20.5	14.8	21.4	23.5	15.9	16.1
LnGrp LOS	D	C	C	D	B	B	C	B	C	C	B	B
Approach Vol, veh/h		780			1312			502			286	
Approach Delay, s/veh		26.3			24.4			20.4			17.0	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.6	20.0	18.4		26.6	6.9	31.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	15.5	18.0		18.0	5.6	27.9				
Max Q Clear Time (g_c+I1), s		12.3	16.5	11.6		14.4	3.3	13.7				
Green Ext Time (p_c), s		1.4	0.0	2.3		0.5	0.0	5.3				
Intersection Summary												
HCM 6th Ctrl Delay				23.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

























1: Indian Hill Blvd & Base Line Rd

03/25/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	722	102	182	458	61	179	74	236	49	55	36
Future Volume (veh/h)	60	722	102	182	458	61	179	74	236	49	55	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	785	111	198	498	66	195	80	257	53	60	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	964	430	244	1256	560	569	651	581	374	785	468
Arrive On Green	0.06	0.27	0.27	0.14	0.35	0.35	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1296	1777	1585	1043	2141	1277
Grp Volume(v), veh/h	65	785	111	198	498	66	195	80	257	53	49	50
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1296	1777	1585	1043	1777	1641
Q Serve(g_s), s	2.1	12.4	3.3	6.5	6.3	1.7	6.9	1.8	7.4	2.4	1.1	1.2
Cycle Q Clear(g_c), s	2.1	12.4	3.3	6.5	6.3	1.7	8.1	1.8	7.4	9.8	1.1	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	98	964	430	244	1256	560	569	651	581	374	651	601
V/C Ratio(X)	0.66	0.81	0.26	0.81	0.40	0.12	0.34	0.12	0.44	0.14	0.08	0.08
Avail Cap(c_a), veh/h	193	1066	476	291	1262	563	569	651	581	374	651	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	20.4	17.1	25.1	14.6	13.1	15.1	12.6	14.4	18.1	12.4	12.4
Incr Delay (d2), s/veh	7.4	4.6	0.3	12.5	0.2	0.1	1.5	0.4	2.2	0.8	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.3	1.1	3.4	2.3	0.6	2.1	0.7	2.7	0.6	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	25.0	17.4	37.6	14.8	13.2	16.6	13.0	16.6	18.9	12.6	12.7
LnGrp LOS	D	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		961			762			532			152	
Approach Delay, s/veh		24.8			20.6			16.0			14.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.5	12.7	20.8		26.5	7.8	25.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.7	9.8	18.0		18.7	6.5	21.3				
Max Q Clear Time (g_c+I1), s		10.1	8.5	14.4		11.8	4.1	8.3				
Green Ext Time (p_c), s		1.9	0.1	1.9		0.4	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay				20.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

























03/22/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	426	143	157	935	33	129	110	104	83	182	174
Future Volume (veh/h)	67	426	143	157	935	33	129	110	104	83	182	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	463	155	171	1016	36	140	120	113	90	198	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	987	440	215	1207	538	479	705	597	545	705	597
Arrive On Green	0.06	0.28	0.28	0.12	0.34	0.34	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1185	1870	1585	1272	1870	1585
Grp Volume(v), veh/h	73	463	155	171	1016	36	140	120	113	90	198	189
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1185	1870	1585	1272	1870	1585
Q Serve(g_s), s	2.4	6.5	4.7	5.6	15.9	0.9	5.6	2.6	2.9	3.0	4.4	5.1
Cycle Q Clear(g_c), s	2.4	6.5	4.7	5.6	15.9	0.9	10.0	2.6	2.9	5.6	4.4	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	987	440	215	1207	538	479	705	597	545	705	597
V/C Ratio(X)	0.70	0.47	0.35	0.80	0.84	0.07	0.29	0.17	0.19	0.17	0.28	0.32
Avail Cap(c_a), veh/h	163	1066	476	282	1303	581	479	705	597	545	705	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.38	0.38	0.38	0.39	0.39	0.39	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	18.0	17.4	25.7	18.3	13.4	16.5	12.5	12.5	14.3	13.0	13.2
Incr Delay (d2), s/veh	6.6	0.3	0.4	4.5	1.9	0.0	0.6	0.2	0.3	0.7	1.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.5	1.6	2.5	6.1	0.3	1.5	1.0	1.0	0.9	1.9	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	18.3	17.7	30.2	20.2	13.4	17.1	12.7	12.8	15.0	14.0	14.6
LnGrp LOS	C	B	B	C	C	B	B	B	B	B	B	B
Approach Vol, veh/h		691			1223			373			477	
Approach Delay, s/veh		19.8			21.4			14.4			14.4	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.1	11.7	21.2		27.1	8.0	24.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	9.5	18.0		19.0	5.5	22.0				
Max Q Clear Time (g_c+I1), s		12.0	7.6	8.5		7.6	4.4	17.9				
Green Ext Time (p_c), s		0.9	0.1	2.5		1.6	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				18.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

03/25/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	769	88	96	491	58	171	100	113	71	76	89
Future Volume (veh/h)	97	769	88	96	491	58	171	100	113	71	76	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	836	96	104	534	63	186	109	123	77	83	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	1044	466	133	1042	465	601	722	612	578	722	612
Arrive On Green	0.08	0.29	0.29	0.07	0.29	0.29	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1315	1870	1585	1284	1870	1585
Grp Volume(v), veh/h	105	836	96	104	534	63	186	109	123	77	83	97
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1315	1870	1585	1284	1870	1585
Q Serve(g_s), s	3.2	11.9	2.5	3.2	6.9	1.6	5.8	2.1	2.8	2.3	1.6	2.2
Cycle Q Clear(g_c), s	3.2	11.9	2.5	3.2	6.9	1.6	7.4	2.1	2.8	4.4	1.6	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	134	1044	466	133	1042	465	601	722	612	578	722	612
V/C Ratio(X)	0.78	0.80	0.21	0.78	0.51	0.14	0.31	0.15	0.20	0.13	0.11	0.16
Avail Cap(c_a), veh/h	165	1169	522	162	1163	519	601	722	612	578	722	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.86	0.86	0.86	0.48	0.48	0.48	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	17.9	14.6	25.0	16.2	14.3	13.2	11.0	11.2	12.4	10.8	11.0
Incr Delay (d2), s/veh	11.3	2.3	0.1	15.8	0.3	0.1	0.6	0.2	0.4	0.5	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	4.6	0.8	1.8	2.5	0.5	1.6	0.8	0.9	0.7	0.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	20.2	14.7	40.9	16.5	14.4	13.9	11.2	11.6	12.9	11.2	11.6
LnGrp LOS	D	C	B	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1037			701			418			257	
Approach Delay, s/veh		21.3			19.9			12.5			11.9	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.7	8.6	20.7		25.7	8.6	20.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.4	5.0	18.1		18.4	5.1	18.0				
Max Q Clear Time (g_c+I1), s		9.4	5.2	13.9		6.4	5.2	8.9				
Green Ext Time (p_c), s		1.1	0.0	2.2		0.8	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				18.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	29	412	156	545	880	92	211	68	398	94	81	73
Future Volume (veh/h)	29	412	156	545	880	92	211	68	398	94	81	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	448	170	592	957	100	229	74	433	102	88	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	609	271	668	1180	526	571	630	534	477	610	495
Arrive On Green	0.03	0.17	0.17	0.19	0.33	0.33	0.07	0.34	0.34	0.06	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1862	1513
Grp Volume(v), veh/h	32	448	170	592	957	100	229	74	433	102	84	83
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1598
Q Serve(g_s), s	1.3	9.0	7.5	12.5	18.5	3.4	5.1	2.0	18.7	2.8	2.5	2.8
Cycle Q Clear(g_c), s	1.3	9.0	7.5	12.5	18.5	3.4	5.1	2.0	18.7	2.8	2.5	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	58	609	271	668	1180	526	571	630	534	477	582	523
V/C Ratio(X)	0.55	0.74	0.63	0.89	0.81	0.19	0.40	0.12	0.81	0.21	0.14	0.16
Avail Cap(c_a), veh/h	119	853	380	668	1303	581	571	630	534	491	582	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	29.5	28.8	29.4	22.9	17.9	16.3	17.2	22.7	15.0	17.8	17.9
Incr Delay (d2), s/veh	7.3	1.9	2.2	13.6	3.7	0.2	0.4	0.4	11.8	0.2	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.7	2.8	6.0	7.4	1.1	2.5	0.9	7.9	1.0	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	31.4	31.0	43.1	26.5	18.0	16.8	17.5	34.5	15.2	18.3	18.6
LnGrp LOS	D	C	C	D	C	B	B	B	C	B	B	B
Approach Vol, veh/h		650			1649			736			269	
Approach Delay, s/veh		31.8			32.0			27.3			17.2	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	29.8	19.0	17.3	9.6	29.1	6.9	29.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.5	14.5	18.0	5.1	19.4	5.0	27.5				
Max Q Clear Time (g_c+I1), s	4.8	20.7	14.5	11.0	7.1	4.8	3.3	20.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	0.7	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay				29.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/25/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	778	174	490	490	148	159	143	617	103	74	43
Future Volume (veh/h)	53	778	174	490	490	148	159	143	617	103	74	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	846	189	533	533	161	173	155	671	112	80	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	918	410	595	1379	615	556	585	496	347	623	340
Arrive On Green	0.04	0.26	0.26	0.17	0.39	0.39	0.09	0.31	0.31	0.06	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2218	1211
Grp Volume(v), veh/h	58	846	189	533	533	161	173	155	671	112	63	64
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1652
Q Serve(g_s), s	2.9	20.9	9.0	13.6	9.7	6.2	6.1	5.6	28.1	4.0	2.4	2.6
Cycle Q Clear(g_c), s	2.9	20.9	9.0	13.6	9.7	6.2	6.1	5.6	28.1	4.0	2.4	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.73
Lane Grp Cap(c), veh/h	76	918	410	595	1379	615	556	585	496	347	499	464
V/C Ratio(X)	0.77	0.92	0.46	0.90	0.39	0.26	0.31	0.26	1.35	0.32	0.13	0.14
Avail Cap(c_a), veh/h	143	928	414	595	1379	615	559	585	496	347	499	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	32.5	28.1	36.5	19.8	18.8	19.6	23.2	30.9	21.1	24.1	24.2
Incr Delay (d2), s/veh	10.9	10.9	0.6	16.1	0.2	0.2	0.3	1.0	170.6	0.5	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	9.7	3.3	6.7	3.7	2.1	2.4	2.5	33.3	1.6	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	43.4	28.7	52.6	20.0	19.0	19.9	24.2	201.6	21.6	24.6	24.8
LnGrp LOS	D	D	C	D	C	B	B	C	F	C	C	C
Approach Vol, veh/h		1093			1227			999			239	
Approach Delay, s/veh		41.4			34.0			142.6			23.3	
Approach LOS		D			C			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	32.6	20.0	27.8	12.5	29.8	8.3	39.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	27.9	15.5	23.5	8.1	24.9	7.2	31.8				
Max Q Clear Time (g_c+I1), s	6.0	30.1	15.6	22.9	8.1	4.6	4.9	11.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	0.5	0.0	3.7				
Intersection Summary												
HCM 6th Ctrl Delay			66.0									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp


























04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	287	511	30	772	668	171	0	442	43	0	571
Future Volume (veh/h)	103	287	511	30	772	668	171	0	442	43	0	571
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	112	312	555	33	839	726	186	0	480	47	0	621
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	142	1060	473	58	893	398	891	0	0	891	0	0
Arrive On Green	0.08	0.30	0.30	0.03	0.25	0.25	0.50	0.00	0.00	0.50	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	186		1781	47	
Grp Volume(v), veh/h	112	312	555	33	839	726	186	11.3		47	10.3	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	4.9	5.4	23.9	1.5	18.5	20.1	4.7			1.1		
Cycle Q Clear(g_c), s	4.9	5.4	23.9	1.5	18.5	20.1	4.7			1.1		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	142	1060	473	58	893	398	891			891		
V/C Ratio(X)	0.79	0.29	1.17	0.57	0.94	1.82	0.21			0.05		
Avail Cap(c_a), veh/h	143	1060	473	114	893	398	891			891		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	36.2	21.6	28.1	38.2	29.4	29.9	11.1			10.3		
Incr Delay (d2), s/veh	25.1	0.2	98.6	8.5	17.3	380.1	0.1			0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	3.0	2.1	21.1	0.7	9.3	49.0	1.6			0.4		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	21.7	126.6	46.7	46.7	410.1	11.3			10.3		
LnGrp LOS	E	C	F	D	D	F	B			B		
Approach Vol, veh/h		979			1598							
Approach Delay, s/veh		85.7			211.8							
Approach LOS		F			F							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	44.5		7.1	28.4	44.5		10.9	24.6				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	6.4		5.1	21.4	9.5		6.4	20.1				
Max Q Clear Time (g_c+I1), s	3.1		3.5	25.9	6.7		6.9	22.1				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			151.2									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary






















4: Baseline Rd & SR-210 Ramp

04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 				 			
Traffic Volume (veh/h)	169	845	483	33	486	395	128	0	859	80	0	518
Future Volume (veh/h)	169	845	483	33	486	395	128	0	859	80	0	518
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	184	918	525	36	528	429	139	0	934	87	0	563
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	222	1171	522	63	853	380	811	0	0	811	0	0
Arrive On Green	0.12	0.33	0.33	0.04	0.24	0.24	0.46	0.00	0.00	0.46	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	139		1781	87	
Grp Volume(v), veh/h	184	918	525	36	528	429	139	12.2		87	11.8	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	7.6	17.5	24.7	1.5	9.9	18.0	3.5			2.1		
Cycle Q Clear(g_c), s	7.6	17.5	24.7	1.5	9.9	18.0	3.5			2.1		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	222	1171	522	63	853	380	811			811		
V/C Ratio(X)	0.83	0.78	1.01	0.57	0.62	1.13	0.17			0.11		
Avail Cap(c_a), veh/h	226	1171	522	119	853	380	811			811		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	32.0	22.7	25.1	35.6	25.4	28.5	12.1			11.7		
Incr Delay (d2), s/veh	21.7	3.6	40.6	8.0	1.4	85.5	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.3	7.0	14.0	0.7	4.0	15.2	1.2			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	26.3	65.8	43.7	26.8	114.0	12.2			11.8		
LnGrp LOS	D	C	F	D	C	F	B			B		
Approach Vol, veh/h		1627			993							
Approach Delay, s/veh		42.1			65.1							
Approach LOS		D			E							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	38.6		7.1	29.2	38.6		13.9	22.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	5.5		5.0	22.5	7.5		9.5	18.0				
Max Q Clear Time (g_c+I1), s	4.1		3.5	26.7	5.5		9.6	20.0				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			47.8									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis
5: Monte Vista Ave & Claremont Blvd

04/03/2024

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	187	2	14	1	0	0	11	464	1	0	422	310	
Future Volume (vph)	187	2	14	1	0	0	11	464	1	0	422	310	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5	
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95			0.95	1.00	
Frt	1.00	1.00	0.85		1.00		1.00	1.00			1.00	0.85	
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00			1.00	1.00	
Satd. Flow (prot)	1681	1613	1504		1770		1770	3538			3539	1583	
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00			1.00	1.00	
Satd. Flow (perm)	1681	1613	1504		1863		1770	3538			3539	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	203	2	15	1	0	0	12	504	1	0	459	337	
RTOR Reduction (vph)	0	1	12	0	0	0	0	0	0	0	0	126	
Lane Group Flow (vph)	104	102	1	0	1	0	12	505	0	0	459	211	
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm	
Protected Phases	4	4			8		5	2			6	6	
Permitted Phases			4	8						6		6	
Actuated Green, G (s)	9.1	9.1	9.1		1.2		1.5	56.2			50.2	50.2	
Effective Green, g (s)	9.1	9.1	9.1		1.2		1.5	56.2			50.2	50.2	
Actuated g/C Ratio	0.11	0.11	0.11		0.01		0.02	0.70			0.63	0.63	
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)	191	183	171		27		33	2485			2220	993	
v/s Ratio Prot	0.06	c0.06					0.01	c0.14			0.13		
v/s Ratio Perm			0.00		c0.00							0.13	
v/c Ratio	0.54	0.56	0.01		0.04		0.36	0.20			0.21	0.21	
Uniform Delay, d1	33.5	33.5	31.4		38.8		38.8	4.1			6.4	6.4	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00	
Incremental Delay, d2	3.2	3.7	0.0		0.6		6.7	0.2			0.2	0.5	
Delay (s)	36.6	37.2	31.5		39.4		45.5	4.3			6.6	6.9	
Level of Service	D	D	C		D		D	A			A	A	
Approach Delay (s)		36.6			39.4			5.3			6.7		
Approach LOS		D			D			A			A		
Intersection Summary													
HCM 2000 Control Delay			10.5									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.27										
Actuated Cycle Length (s)			80.0									Sum of lost time (s)	18.0
Intersection Capacity Utilization			38.8%									ICU Level of Service	A
Analysis Period (min)			15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	0	21	3	9	1	19	526	1	1	473	217
Future Volume (vph)	340	0	21	3	9	1	19	526	1	1	473	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1613	1504		1825		1770	3538		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.44	1.00	1.00
Satd. Flow (perm)	1681	1613	1504		1845		1770	3538		813	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	370	0	23	3	10	1	21	572	1	1	514	236
RTOR Reduction (vph)	0	118	17	0	1	0	0	0	0	0	0	107
Lane Group Flow (vph)	185	69	4	0	13	0	21	573	0	1	514	129
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	13.8	13.8	13.8		1.5		3.0	51.2		43.7	43.7	43.7
Effective Green, g (s)	13.8	13.8	13.8		1.5		3.0	51.2		43.7	43.7	43.7
Actuated g/C Ratio	0.17	0.17	0.17		0.02		0.04	0.64		0.55	0.55	0.55
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	289	278	259		34		66	2264		444	1933	864
v/s Ratio Prot	c0.11	0.04					0.01	c0.16			0.15	
v/s Ratio Perm			0.00		c0.01					0.00		0.08
v/c Ratio	0.64	0.25	0.01		0.38		0.32	0.25		0.00	0.27	0.15
Uniform Delay, d1	30.8	28.6	27.5		38.8		37.5	6.2		8.2	9.6	9.0
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.8	0.5	0.0		7.0		2.8	0.3		0.0	0.3	0.4
Delay (s)	35.6	29.1	27.5		45.8		40.3	6.5		8.3	10.0	9.3
Level of Service	D	C	C		D		D	A		A	A	A
Approach Delay (s)		32.0			45.8			7.7			9.8	
Approach LOS		C			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			14.3				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			18.0		
Intersection Capacity Utilization			39.6%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM 6th Signalized Intersection Summary
6: Foothill Blvd & Indian Hill Blvd























03/22/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘	↗	↗	↗↘		↗	↗	↗
Traffic Volume (veh/h)	102	601	120	92	758	138	145	325	83	183	387	166
Future Volume (veh/h)	102	601	120	92	758	138	145	325	83	183	387	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	653	130	100	824	150	158	353	90	199	421	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	780	155	128	911	406	194	817	206	238	590	500
Arrive On Green	0.08	0.26	0.26	0.07	0.26	0.26	0.11	0.29	0.29	0.13	0.32	0.32
Sat Flow, veh/h	1781	2954	587	1781	3554	1585	1781	2812	708	1781	1870	1585
Grp Volume(v), veh/h	111	392	391	100	824	150	158	221	222	199	421	180
Grp Sat Flow(s),veh/h/ln	1781	1777	1765	1781	1777	1585	1781	1777	1743	1781	1870	1585
Q Serve(g_s), s	4.6	15.6	15.7	4.1	16.8	5.8	6.5	7.6	7.8	8.2	14.9	6.6
Cycle Q Clear(g_c), s	4.6	15.6	15.7	4.1	16.8	5.8	6.5	7.6	7.8	8.2	14.9	6.6
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	141	469	466	128	911	406	194	516	507	238	590	500
V/C Ratio(X)	0.79	0.84	0.84	0.78	0.90	0.37	0.81	0.43	0.44	0.84	0.71	0.36
Avail Cap(c_a), veh/h	154	486	482	131	924	412	202	516	507	249	590	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	33.9	26.1	26.1	34.2	27.0	22.9	32.7	21.6	21.6	31.7	22.7	19.8
Incr Delay (d2), s/veh	21.6	11.8	12.1	25.5	12.1	0.6	21.2	2.6	2.7	16.3	5.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	7.6	7.6	2.6	8.1	2.1	3.8	3.3	3.4	4.5	7.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	37.9	38.2	59.8	39.1	23.5	53.8	24.1	24.4	48.0	28.2	21.4
LnGrp LOS	E	D	D	E	D	C	D	C	C	D	C	C
Approach Vol, veh/h		894			1074			601			800	
Approach Delay, s/veh		40.2			38.8			32.0			31.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.5	26.3	9.9	24.3	12.7	28.1	10.4	23.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	20.5	5.5	20.5	8.5	22.5	6.5	19.5				
Max Q Clear Time (g_c+I1), s	10.2	9.8	6.1	17.7	8.5	16.9	6.6	18.8				
Green Ext Time (p_c), s	0.0	1.9	0.0	1.3	0.0	1.6	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			36.3									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
6: Foothill Blvd & Indian Hill Blvd

03/25/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	819	126	110	726	114	205	306	127	146	240	84
Future Volume (veh/h)	56	819	126	110	726	114	205	306	127	146	240	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	890	137	120	789	124	223	333	138	159	261	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	959	148	148	1243	554	258	734	299	193	488	414
Arrive On Green	0.04	0.31	0.31	0.17	0.70	0.70	0.15	0.30	0.30	0.11	0.26	0.26
Sat Flow, veh/h	1781	3087	475	1781	3554	1585	1781	2464	1002	1781	1870	1585
Grp Volume(v), veh/h	61	512	515	120	789	124	223	238	233	159	261	91
Grp Sat Flow(s),veh/h/ln	1781	1777	1785	1781	1777	1585	1781	1777	1690	1781	1870	1585
Q Serve(g_s), s	3.1	25.1	25.1	5.8	10.8	2.5	11.0	9.8	10.1	7.9	10.8	4.1
Cycle Q Clear(g_c), s	3.1	25.1	25.1	5.8	10.8	2.5	11.0	9.8	10.1	7.9	10.8	4.1
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	79	552	555	148	1243	554	258	529	503	193	488	414
V/C Ratio(X)	0.78	0.93	0.93	0.81	0.63	0.22	0.86	0.45	0.46	0.82	0.53	0.22
Avail Cap(c_a), veh/h	168	563	565	168	1243	554	287	529	503	232	488	414
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	42.6	30.0	30.0	36.9	10.4	9.2	37.6	25.6	25.7	39.3	28.6	26.1
Incr Delay (d2), s/veh	14.9	21.6	21.6	22.8	1.1	0.2	21.2	2.8	3.0	16.7	3.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	13.3	13.4	3.2	2.8	0.8	6.2	4.4	4.3	4.3	5.2	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	51.6	51.6	59.6	11.5	9.4	58.8	28.4	28.8	56.0	32.3	27.2
LnGrp LOS	E	D	D	E	B	A	E	C	C	E	C	C
Approach Vol, veh/h		1088			1033			694			511	
Approach Delay, s/veh		51.9			16.8			38.3			38.8	
Approach LOS		D			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.2	31.3	12.0	32.5	17.6	28.0	8.5	36.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.7	23.3	8.5	28.5	14.5	20.5	8.5	28.5				
Max Q Clear Time (g_c+I1), s	9.9	12.1	7.8	27.1	13.0	12.8	5.1	12.8				
Green Ext Time (p_c), s	0.1	2.1	0.0	0.8	0.1	1.1	0.0	5.0				
Intersection Summary												
HCM 6th Ctrl Delay			36.2									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↘			↘			↘
Traffic Vol, veh/h	22	846	80	128	1098	10	0	0	94	0	0	8
Future Vol, veh/h	22	846	80	128	1098	10	0	0	94	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	920	87	139	1193	11	0	0	102	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1204	0	0	1007	0	0	-	-	460	-	-	597
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	575	-	-	684	-	-	0	0	548	0	0	446
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	575	-	-	684	-	-	-	-	548	-	-	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			1.2			13.1			13.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	548	575	-	-	684	-	-	446
HCM Lane V/C Ratio	0.186	0.042	-	-	0.203	-	-	0.019
HCM Control Delay (s)	13.1	11.5	-	-	11.6	-	-	13.2
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.8	-	-	0.1

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗			↗			↗
Traffic Vol, veh/h	22	1078	59	74	964	5	0	0	127	0	0	28
Future Vol, veh/h	22	1078	59	74	964	5	0	0	127	0	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	1172	64	80	1048	5	0	0	138	0	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1053	0	0	1236	0	0	-	-	586	-	-	524
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	657	-	-	559	-	-	0	0	454	0	0	498
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	657	-	-	559	-	-	-	-	454	-	-	498
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.9			16.4			12.7		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	454	657	-	-	559	-	-	498
HCM Lane V/C Ratio	0.304	0.036	-	-	0.144	-	-	0.061
HCM Control Delay (s)	16.4	10.7	-	-	12.5	-	-	12.7
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.3	0.1	-	-	0.5	-	-	0.2

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	857	83	73	1230	11	10	3	17	11	7	0
Future Volume (veh/h)	4	857	83	73	1230	11	10	3	17	11	7	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	932	90	79	1337	12	11	3	18	12	8	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	1606	716	273	1631	15	255	97	339	440	269	0
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.38	0.38	0.38	0.38	0.00
Sat Flow, veh/h	404	3554	1585	552	3609	32	435	251	882	871	699	0
Grp Volume(v), veh/h	4	932	90	79	658	691	32	0	0	20	0	0
Grp Sat Flow(s),veh/h/ln	404	1777	1585	552	1777	1865	1568	0	0	1570	0	0
Q Serve(g_s), s	0.5	10.7	1.8	6.8	17.7	17.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.2	10.7	1.8	17.5	17.7	17.7	0.7	0.0	0.0	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.34		0.56	0.60		0.00
Lane Grp Cap(c), veh/h	183	1606	716	273	803	843	691	0	0	708	0	0
V/C Ratio(X)	0.02	0.58	0.13	0.29	0.82	0.82	0.05	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	203	1777	793	299	888	932	691	0	0	708	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.37	0.37	0.37	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.1	11.2	8.8	17.7	13.1	13.1	10.6	0.0	0.0	10.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.1	0.2	2.2	2.1	0.1	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.3	0.5	0.8	5.8	6.0	0.2	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	11.6	8.8	17.9	15.3	15.2	10.7	0.0	0.0	10.6	0.0	0.0
LnGrp LOS	C	B	A	B	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1026			1428			32			20	
Approach Delay, s/veh		11.4			15.4			10.7			10.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.6		29.4		25.6		29.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		27.5		18.5		27.5				
Max Q Clear Time (g_c+I1), s		2.7		20.2		2.4		19.7				
Green Ext Time (p_c), s		0.1		3.6		0.0		5.1				
Intersection Summary												
HCM 6th Ctrl Delay				13.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑	↖	↗	↑↑			↕			↕	
Traffic Volume (veh/h)	9	1384	21	12	988	12	85	10	86	28	8	0
Future Volume (veh/h)	9	1384	21	12	988	12	85	10	86	28	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1504	23	13	1074	13	92	11	93	30	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	271	1788	797	168	1809	22	307	60	252	479	131	0
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.00
Sat Flow, veh/h	519	3554	1585	349	3596	44	631	174	727	1074	376	0
Grp Volume(v), veh/h	10	1504	23	13	531	556	196	0	0	39	0	0
Grp Sat Flow(s),veh/h/ln	519	1777	1585	349	1777	1863	1531	0	0	1451	0	0
Q Serve(g_s), s	0.8	21.9	0.4	2.0	12.7	12.7	3.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.5	21.9	0.4	23.9	12.7	12.7	5.5	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.47		0.47	0.77		0.00
Lane Grp Cap(c), veh/h	271	1788	797	168	894	937	619	0	0	609	0	0
V/C Ratio(X)	0.04	0.84	0.03	0.08	0.59	0.59	0.32	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	291	1925	859	182	962	1009	619	0	0	609	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.60	0.60	0.60	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.4	12.8	7.5	23.1	10.6	10.6	14.5	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	3.3	0.0	0.1	0.5	0.5	1.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	7.9	0.1	0.2	4.2	4.4	2.0	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.4	16.2	7.5	23.2	11.1	11.1	15.9	0.0	0.0	13.3	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1537			1100			196			39	
Approach Delay, s/veh		16.1			11.2			15.9			13.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.3		34.7		25.3		34.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		7.5		23.9		2.9		25.9				
Green Ext Time (p_c), s		0.8		6.3		0.1		3.8				
Intersection Summary												
HCM 6th Ctrl Delay				14.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	643	6	9	938	119	2	1	9	141	4	347
Future Volume (veh/h)	168	643	6	9	938	119	2	1	9	141	4	347
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	699	7	10	1020	129	2	1	10	153	4	377
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	1538	15	22	1126	502	261	118	407	186	769	651
Arrive On Green	0.12	0.43	0.43	0.01	0.32	0.32	0.26	0.26	0.26	0.10	0.41	0.41
Sat Flow, veh/h	1781	3605	36	1781	3554	1585	756	459	1585	1781	1870	1585
Grp Volume(v), veh/h	183	345	361	10	1020	129	3	0	10	153	4	377
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	1781	1777	1585	1215	0	1585	1781	1870	1585
Q Serve(g_s), s	9.0	12.4	12.4	0.5	24.8	5.4	0.0	0.0	0.4	7.6	0.1	16.5
Cycle Q Clear(g_c), s	9.0	12.4	12.4	0.5	24.8	5.4	0.1	0.0	0.4	7.6	0.1	16.5
Prop In Lane	1.00		0.02	1.00		1.00	0.67		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	758	795	22	1126	502	378	0	407	186	769	651
V/C Ratio(X)	0.84	0.45	0.45	0.46	0.91	0.26	0.01	0.00	0.02	0.82	0.01	0.58
Avail Cap(c_a), veh/h	247	758	795	99	1165	520	378	0	407	208	769	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.71	0.71	0.71	1.00	0.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	38.6	18.3	18.3	44.1	29.5	22.9	24.9	0.0	25.0	39.5	15.6	20.5
Incr Delay (d2), s/veh	17.1	0.3	0.3	10.2	7.5	0.2	0.0	0.0	0.1	19.5	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	4.8	5.0	0.3	11.0	2.0	0.1	0.0	0.2	4.2	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	18.7	18.7	54.3	37.0	23.1	24.9	0.0	25.1	58.9	15.7	23.9
LnGrp LOS	E	B	B	D	D	C	C	A	C	E	B	C
Approach Vol, veh/h		889			1159			13			534	
Approach Delay, s/veh		26.3			35.6			25.1			33.9	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	13.9	27.6	5.6	42.9		41.5	15.5	33.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	19.5	5.0	37.0		34.5	12.5	29.5				
Max Q Clear Time (g_c+I1), s	9.6	2.4	2.5	14.4		18.5	11.0	26.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	4.1		1.2	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				32.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	1098	7	33	773	163	11	7	23	127	4	163
Future Volume (veh/h)	173	1098	7	33	773	163	11	7	23	127	4	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	1193	8	36	840	177	12	8	25	138	4	177
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	225	1316	9	61	966	431	294	179	445	172	810	686
Arrive On Green	0.13	0.36	0.36	0.03	0.27	0.27	0.28	0.28	0.28	0.10	0.43	0.43
Sat Flow, veh/h	1781	3619	24	1781	3554	1585	792	639	1585	1781	1870	1585
Grp Volume(v), veh/h	188	586	615	36	840	177	20	0	25	138	4	177
Grp Sat Flow(s),veh/h/ln	1781	1777	1866	1781	1777	1585	1431	0	1585	1781	1870	1585
Q Serve(g_s), s	8.2	25.0	25.0	1.6	18.0	7.3	0.0	0.0	0.9	6.1	0.1	5.7
Cycle Q Clear(g_c), s	8.2	25.0	25.0	1.6	18.0	7.3	0.6	0.0	0.9	6.1	0.1	5.7
Prop In Lane	1.00		0.01	1.00		1.00	0.60		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	646	679	61	966	431	473	0	445	172	810	686
V/C Ratio(X)	0.84	0.91	0.91	0.59	0.87	0.41	0.04	0.00	0.06	0.80	0.00	0.26
Avail Cap(c_a), veh/h	234	646	679	114	1026	458	473	0	445	189	810	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.49	0.49	0.49	0.85	0.85	0.85	1.00	0.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	34.1	24.2	24.2	38.1	27.8	23.9	20.9	0.0	21.0	35.4	12.9	14.5
Incr Delay (d2), s/veh	11.9	9.2	8.9	7.4	6.8	0.5	0.2	0.0	0.2	19.3	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	11.1	11.6	0.8	8.0	2.6	0.3	0.0	0.4	3.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	33.4	33.0	45.4	34.5	24.4	21.1	0.0	21.3	54.7	12.9	15.3
LnGrp LOS	D	C	C	D	C	C	C	A	C	D	B	B
Approach Vol, veh/h		1389			1053			45				319
Approach Delay, s/veh		34.9			33.2			21.2				32.3
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	12.2	26.9	7.3	33.6		39.1	14.6	26.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	19.9	5.1	28.5		32.9	10.5	23.1				
Max Q Clear Time (g_c+I1), s	8.1	2.9	3.6	27.0		7.7	10.2	20.0				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.0		0.6	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay				33.8								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	455	132	152	780	34	180	233	71	60	287	108
Future Volume (veh/h)	164	455	132	152	780	34	180	233	71	60	287	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	495	143	165	848	37	196	253	77	65	312	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	1040	464	207	1010	450	752	988	294	434	931	342
Arrive On Green	0.12	0.29	0.29	0.12	0.28	0.28	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1860	2699	803	1050	2544	935
Grp Volume(v), veh/h	178	495	143	165	848	37	196	165	165	65	216	213
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	930	1777	1726	1050	1777	1702
Q Serve(g_s), s	5.8	6.9	4.2	5.4	13.5	1.0	5.1	3.9	4.0	2.8	5.3	5.4
Cycle Q Clear(g_c), s	5.8	6.9	4.2	5.4	13.5	1.0	10.6	3.9	4.0	6.8	5.3	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		0.55
Lane Grp Cap(c), veh/h	223	1040	464	207	1010	450	752	650	632	434	650	623
V/C Ratio(X)	0.80	0.48	0.31	0.80	0.84	0.08	0.26	0.25	0.26	0.15	0.33	0.34
Avail Cap(c_a), veh/h	282	1143	510	258	1096	489	752	650	632	434	650	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	17.4	16.5	25.8	20.2	15.7	17.6	13.3	13.3	15.7	13.7	13.8
Incr Delay (d2), s/veh	10.7	0.3	0.3	12.8	5.6	0.1	0.8	0.9	1.0	0.7	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.5	1.4	2.8	5.6	0.3	1.0	1.5	1.5	0.7	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	17.7	16.8	38.7	25.8	15.8	18.4	14.2	14.3	16.5	15.1	15.3
LnGrp LOS	D	B	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		816			1050			526			494	
Approach Delay, s/veh		21.6			27.5			15.8			15.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.5	11.5	22.1		26.5	12.0	21.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	8.7	19.3		18.5	9.5	18.5				
Max Q Clear Time (g_c+I1), s		12.6	7.4	8.9		8.8	7.8	15.5				
Green Ext Time (p_c), s		1.5	0.1	2.6		1.9	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay				21.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	978	168	122	624	49	182	266	136	77	198	77
Future Volume (veh/h)	161	978	168	122	624	49	182	266	136	77	198	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	1063	183	133	678	53	198	289	148	84	215	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	1188	530	169	1089	486	832	794	396	357	872	330
Arrive On Green	0.12	0.33	0.33	0.09	0.31	0.31	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2096	2296	1145	952	2521	954
Grp Volume(v), veh/h	175	1063	183	133	678	53	198	222	215	84	149	150
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1048	1777	1664	952	1777	1699
Q Serve(g_s), s	5.7	17.0	5.2	4.4	9.8	1.4	4.5	5.6	5.8	4.4	3.6	3.8
Cycle Q Clear(g_c), s	5.7	17.0	5.2	4.4	9.8	1.4	8.3	5.6	5.8	10.2	3.6	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.69	1.00		0.56
Lane Grp Cap(c), veh/h	219	1188	530	169	1089	486	832	614	575	357	614	587
V/C Ratio(X)	0.80	0.89	0.35	0.79	0.62	0.11	0.24	0.36	0.37	0.24	0.24	0.25
Avail Cap(c_a), veh/h	267	1214	542	193	1089	486	832	614	575	357	614	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	19.0	15.0	26.6	17.8	14.9	17.1	14.7	14.7	18.6	14.0	14.1
Incr Delay (d2), s/veh	6.2	4.2	0.2	17.2	1.1	0.1	0.7	1.6	1.8	1.5	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.6	1.6	2.5	3.6	0.5	1.0	2.2	2.2	1.0	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	23.1	15.2	43.7	18.9	15.0	17.7	16.3	16.5	20.1	15.0	15.1
LnGrp LOS	C	C	B	D	B	B	B	B	B	C	B	B
Approach Vol, veh/h		1421			864			635			383	
Approach Delay, s/veh		23.2			22.5			16.8			16.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.2	10.2	24.6		25.2	11.9	22.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	6.5	20.5		19.5	9.0	18.0				
Max Q Clear Time (g_c+I1), s		10.3	6.4	19.0		12.2	7.7	11.8				
Green Ext Time (p_c), s		2.4	0.0	1.0		1.2	0.1	2.3				
Intersection Summary												
HCM 6th Ctrl Delay			21.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑↗	
Traffic Volume (veh/h)	34	468	86	98	770	168	141	340	85	94	282	46
Future Volume (veh/h)	34	468	86	98	770	168	141	340	85	94	282	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	493	91	103	811	177	148	358	89	99	297	48
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	876	391	238	987	440	266	1112	496	234	1352	212
Arrive On Green	0.04	0.25	0.25	0.07	0.28	0.28	0.08	0.31	0.31	0.07	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4451	698
Grp Volume(v), veh/h	36	493	91	103	811	177	148	358	89	99	225	120
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1745
Q Serve(g_s), s	1.2	7.2	2.7	1.7	12.7	5.4	2.4	4.6	2.4	1.6	2.9	3.0
Cycle Q Clear(g_c), s	1.2	7.2	2.7	1.7	12.7	5.4	2.4	4.6	2.4	1.6	2.9	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	67	876	391	238	987	440	266	1112	496	234	1034	530
V/C Ratio(X)	0.54	0.56	0.23	0.43	0.82	0.40	0.56	0.32	0.18	0.42	0.22	0.23
Avail Cap(c_a), veh/h	150	1080	481	292	1080	481	292	1112	496	292	1034	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	19.5	17.8	26.5	20.0	17.4	26.4	15.6	14.8	26.5	15.4	15.4
Incr Delay (d2), s/veh	6.5	0.6	0.3	1.2	4.8	0.6	1.9	0.8	0.8	1.2	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.7	0.9	0.7	5.1	1.8	1.0	1.7	0.9	0.6	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	20.1	18.1	27.7	24.9	18.0	28.3	16.3	15.6	27.7	15.9	16.4
LnGrp LOS	C	C	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		620			1091			595			444	
Approach Delay, s/veh		20.6			24.0			19.2			18.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	23.0	8.6	19.1	9.1	22.5	6.7	21.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.6	6.6	3.7	9.2	4.4	5.0	3.2	14.7				
Green Ext Time (p_c), s	0.0	1.8	0.0	2.2	0.0	1.5	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑↗	
Traffic Volume (veh/h)	89	970	169	127	584	164	153	276	125	173	420	44
Future Volume (veh/h)	89	970	169	127	584	164	153	276	125	173	420	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	1021	178	134	615	173	161	291	132	182	442	46
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	1007	449	246	1020	455	256	1007	449	272	1355	139
Arrive On Green	0.07	0.28	0.28	0.07	0.29	0.29	0.07	0.28	0.28	0.08	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4705	482
Grp Volume(v), veh/h	94	1021	178	134	615	173	161	291	132	182	318	170
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1784
Q Serve(g_s), s	3.3	18.0	5.8	2.4	9.5	5.5	2.9	4.1	4.1	3.3	4.7	4.8
Cycle Q Clear(g_c), s	3.3	18.0	5.8	2.4	9.5	5.5	2.9	4.1	4.1	3.3	4.7	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	120	1007	449	246	1020	455	256	1007	449	272	980	514
V/C Ratio(X)	0.78	1.01	0.40	0.54	0.60	0.38	0.63	0.29	0.29	0.67	0.32	0.33
Avail Cap(c_a), veh/h	140	1007	449	272	1020	455	272	1007	449	272	980	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	22.8	18.4	28.5	19.5	18.1	28.6	17.8	17.8	28.5	17.8	17.8
Incr Delay (d2), s/veh	21.2	31.9	0.6	1.9	1.0	0.5	4.2	0.7	1.7	6.2	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	11.0	1.9	1.0	3.6	1.9	1.2	1.5	1.5	1.5	1.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.4	54.7	18.9	30.4	20.5	18.6	32.7	18.5	19.5	34.6	18.6	19.5
LnGrp LOS	D	F	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		1293			922			584			670	
Approach Delay, s/veh		49.4			21.6			22.6			23.2	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.0	22.5	9.2	22.8	8.8	22.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.3	6.1	4.4	20.0	4.9	6.8	5.3	11.5				
Green Ext Time (p_c), s	0.0	1.6	0.0	0.0	0.0	2.1	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			32.5									
HCM 6th LOS			C									

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↗	↖	↖↖	↗↗		↖	↖↖	↖		↗↗	
Traffic Volume (vph)	4	506	106	206	927	0	146	0	188	0	0	1
Future Volume (vph)	4	506	106	206	927	0	146	0	188	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.89	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1490	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1490	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	533	112	217	976	0	154	0	198	0	0	1
RTOR Reduction (vph)	0	0	80	0	0	0	0	81	78	0	1	0
Lane Group Flow (vph)	4	533	32	217	976	0	122	36	35	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.8	17.2	17.2	5.1	21.5		18.3	18.3	18.3		0.9	
Effective Green, g (s)	0.8	17.2	17.2	5.1	21.5		18.3	18.3	18.3		0.9	
Actuated g/C Ratio	0.01	0.29	0.29	0.09	0.36		0.31	0.31	0.31		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	23	1023	457	294	1278		517	458	462		45	
v/s Ratio Prot	0.00	0.15		c0.06	c0.28		c0.07	0.02			c0.00	
v/s Ratio Perm			0.02						0.02			
v/c Ratio	0.17	0.52	0.07	0.74	0.76		0.24	0.08	0.08		0.00	
Uniform Delay, d1	29.0	17.7	15.4	26.5	16.8		15.4	14.6	14.6		28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.6	0.5	0.1	9.3	2.8		1.1	0.3	0.3		0.0	
Delay (s)	32.6	18.2	15.4	35.9	19.5		16.5	15.0	14.9		28.9	
Level of Service	C	B	B	D	B		B	B	B		C	
Approach Delay (s)		17.8			22.5			15.5			28.9	
Approach LOS		B			C			B			C	

Intersection Summary

HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	59.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖↗	↖↗		↖	↗	↘		↖↗	
Traffic Volume (vph)	4	1070	180	265	726	1	146	1	375	0	2	0
Future Volume (vph)	4	1070	180	265	726	1	146	1	375	0	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1455	1504		3539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1455	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	1126	189	279	764	1	154	1	395	0	2	0
RTOR Reduction (vph)	0	0	98	0	0	0	0	136	147	0	0	0
Lane Group Flow (vph)	4	1126	91	279	765	0	139	70	58	0	2	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2			6	
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	411	425		55	
v/s Ratio Prot	0.00	c0.32		c0.08	c0.22		c0.08	0.05			c0.00	
v/s Ratio Perm			0.06						0.04			
v/c Ratio	0.17	0.93	0.17	1.04	0.53		0.29	0.17	0.14		0.04	
Uniform Delay, d1	31.2	20.3	14.7	29.5	14.4		17.9	17.3	17.1		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.3	12.3	0.1	66.1	0.4		1.6	0.9	0.7		0.3	
Delay (s)	34.5	32.7	14.8	95.6	14.8		19.5	18.2	17.8		31.3	
Level of Service	C	C	B	F	B		B	B	B		C	
Approach Delay (s)		30.1			36.4			18.4			31.3	
Approach LOS		C			D			B			C	

Intersection Summary

HCM 2000 Control Delay	30.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th TWSC
13: 6th St & Indian Hill Blvd

03/25/2024

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	11	3	25	8	27	3	586	83	33	690	2
Future Vol, veh/h	0	11	3	25	8	27	3	586	83	33	690	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	3	27	9	29	3	637	90	36	750	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1530	1556	751	1519	1512	682	752	0	0	727	0	0
Stage 1	823	823	-	688	688	-	-	-	-	-	-	-
Stage 2	707	733	-	831	824	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	96	113	411	97	120	450	858	-	-	876	-	-
Stage 1	368	388	-	436	447	-	-	-	-	-	-	-
Stage 2	426	426	-	364	387	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	82	108	411	85	115	450	858	-	-	876	-	-
Mov Cap-2 Maneuver	82	108	-	85	115	-	-	-	-	-	-	-
Stage 1	367	372	-	435	446	-	-	-	-	-	-	-
Stage 2	389	425	-	335	371	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	36.9		50.3		0		0.4	
HCM LOS	E		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	858	-	-	128	142	876	-
HCM Lane V/C Ratio	0.004	-	-	0.119	0.459	0.041	-
HCM Control Delay (s)	9.2	-	-	36.9	50.3	9.3	-
HCM Lane LOS	A	-	-	E	F	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	2.1	0.1	-

Intersection												
Int Delay, s/veh	11.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	4	10	5	81	11	50	7	619	41	25	491	1
Future Vol, veh/h	4	10	5	81	11	50	7	619	41	25	491	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	11	5	88	12	54	8	673	45	27	534	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1334	1323	535	1309	1301	696	535	0	0	718	0	0
Stage 1	589	589	-	712	712	-	-	-	-	-	-	-
Stage 2	745	734	-	597	589	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	131	156	545	136	161	442	1033	-	-	883	-	-
Stage 1	494	495	-	423	436	-	-	-	-	-	-	-
Stage 2	406	426	-	490	495	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	105	150	545	123	155	442	1033	-	-	883	-	-
Mov Cap-2 Maneuver	105	150	-	123	155	-	-	-	-	-	-	-
Stage 1	490	480	-	420	433	-	-	-	-	-	-	-
Stage 2	344	423	-	460	480	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	29.6		102.4		0.1		0.4	
HCM LOS	D		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1033	-	-	167	169	883	-
HCM Lane V/C Ratio	0.007	-	-	0.124	0.913	0.031	-
HCM Control Delay (s)	8.5	-	-	29.6	102.4	9.2	-
HCM Lane LOS	A	-	-	D	F	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	6.7	0.1	-

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	43	102	9	55	95	20	10	202	66	24	158	20
Future Vol, veh/h	43	102	9	55	95	20	10	202	66	24	158	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	111	10	60	103	22	11	220	72	26	172	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.8	10.9	12.1	11
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	28%	32%	12%
Vol Thru, %	73%	66%	56%	78%
Vol Right, %	24%	6%	12%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	278	154	170	202
LT Vol	10	43	55	24
Through Vol	202	102	95	158
RT Vol	66	9	20	20
Lane Flow Rate	302	167	185	220
Geometry Grp	1	1	1	1
Degree of Util (X)	0.433	0.264	0.288	0.328
Departure Headway (Hd)	5.161	5.675	5.617	5.379
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	695	631	637	667
Service Time	3.203	3.724	3.666	3.424
HCM Lane V/C Ratio	0.435	0.265	0.29	0.33
HCM Control Delay	12.1	10.8	10.9	11
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.2	1.1	1.2	1.4

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	112	6	93	143	29	16	151	84	25	206	37
Future Vol, veh/h	17	112	6	93	143	29	16	151	84	25	206	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	122	7	101	155	32	17	164	91	27	224	40
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.2	13.9	12.7	13.4
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	13%	35%	9%
Vol Thru, %	60%	83%	54%	77%
Vol Right, %	33%	4%	11%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	251	135	265	268
LT Vol	16	17	93	25
Through Vol	151	112	143	206
RT Vol	84	6	29	37
Lane Flow Rate	273	147	288	291
Geometry Grp	1	1	1	1
Degree of Util (X)	0.421	0.248	0.464	0.456
Departure Headway (Hd)	5.555	6.08	5.799	5.638
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	644	585	616	635
Service Time	3.631	4.169	3.873	3.713
HCM Lane V/C Ratio	0.424	0.251	0.468	0.458
HCM Control Delay	12.7	11.2	13.9	13.4
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.1	1	2.5	2.4

Intersection

Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	112	12	14	232	0	14	0	8	1	1	1
Future Vol, veh/h	2	112	12	14	232	0	14	0	8	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	122	13	15	252	0	15	0	9	1	1	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.9	7.9	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	64%	2%	6%	33%
Vol Thru, %	0%	89%	94%	33%
Vol Right, %	36%	10%	0%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	126	246	3
LT Vol	14	2	14	1
Through Vol	0	112	232	1
RT Vol	8	12	0	1
Lane Flow Rate	24	137	267	3
Geometry Grp	1	1	1	1
Degree of Util (X)	0.031	0.157	0.304	0.004
Departure Headway (Hd)	4.718	4.128	4.095	4.703
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	763	857	872	765
Service Time	2.718	2.206	2.147	2.704
HCM Lane V/C Ratio	0.031	0.16	0.306	0.004
HCM Control Delay	7.9	8	8.9	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.6	1.3	0

Intersection

Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	312	30	23	226	7	17	2	14	4	2	3
Future Vol, veh/h	2	312	30	23	226	7	17	2	14	4	2	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	339	33	25	246	8	18	2	15	4	2	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.7	9.7	8.5	8.4
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	1%	9%	44%
Vol Thru, %	6%	91%	88%	22%
Vol Right, %	42%	9%	3%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	344	256	9
LT Vol	17	2	23	4
Through Vol	2	312	226	2
RT Vol	14	30	7	3
Lane Flow Rate	36	374	278	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.052	0.445	0.342	0.014
Departure Headway (Hd)	5.198	4.289	4.429	5.286
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	688	841	813	676
Service Time	3.237	2.306	2.448	3.328
HCM Lane V/C Ratio	0.052	0.445	0.342	0.015
HCM Control Delay	8.5	10.7	9.7	8.4
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.2	2.3	1.5	0

HCM 6th Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷	↷	↶	↷		↶	↷	
Traffic Volume (veh/h)	35	100	9	159	199	86	40	445	76	48	445	39
Future Volume (veh/h)	35	100	9	159	199	86	40	445	76	48	445	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	105	9	167	209	91	42	468	80	51	468	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	160	14	304	319	271	429	1040	177	417	1153	101
Arrive On Green	0.09	0.09	0.09	0.17	0.17	0.17	0.04	0.34	0.34	0.05	0.35	0.35
Sat Flow, veh/h	1781	1699	146	1781	1870	1585	1781	3038	516	1781	3307	289
Grp Volume(v), veh/h	37	0	114	167	209	91	42	273	275	51	251	258
Grp Sat Flow(s),veh/h/ln	1781	0	1844	1781	1870	1585	1781	1777	1777	1781	1777	1818
Q Serve(g_s), s	1.0	0.0	3.1	4.5	5.5	2.7	0.8	6.3	6.3	0.9	5.6	5.7
Cycle Q Clear(g_c), s	1.0	0.0	3.1	4.5	5.5	2.7	0.8	6.3	6.3	0.9	5.6	5.7
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.29	1.00		0.16
Lane Grp Cap(c), veh/h	168	0	174	304	319	271	429	608	609	417	620	634
V/C Ratio(X)	0.22	0.00	0.65	0.55	0.65	0.34	0.10	0.45	0.45	0.12	0.40	0.41
Avail Cap(c_a), veh/h	610	0	631	610	640	543	521	608	609	497	620	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	23.0	19.9	20.3	19.2	10.4	13.4	13.4	10.4	13.0	13.0
Incr Delay (d2), s/veh	0.7	0.0	4.1	1.5	2.3	0.7	0.1	2.4	2.4	0.1	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.4	1.8	2.4	0.9	0.3	2.4	2.4	0.3	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	0.0	27.1	21.5	22.6	19.9	10.5	15.8	15.9	10.5	14.9	14.9
LnGrp LOS	C	A	C	C	C	B	B	B	B	B	B	B
Approach Vol, veh/h		151			467			590			560	
Approach Delay, s/veh		26.0			21.7			15.5			14.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	22.5		9.5	6.8	22.8		13.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.9	8.3		5.1	2.8	7.7		7.5				
Green Ext Time (p_c), s	0.0	2.2		0.4	0.0	2.0		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				17.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	52	199	23	114	131	44	24	412	190	131	441	69
Future Volume (veh/h)	52	199	23	114	131	44	24	412	190	131	441	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	209	24	120	138	46	25	434	200	138	464	73
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	279	32	216	226	192	396	749	342	393	1124	176
Arrive On Green	0.17	0.17	0.17	0.12	0.12	0.12	0.03	0.32	0.32	0.08	0.37	0.37
Sat Flow, veh/h	1781	1647	189	1781	1870	1585	1781	2370	1082	1781	3079	482
Grp Volume(v), veh/h	55	0	233	120	138	46	25	324	310	138	267	270
Grp Sat Flow(s),veh/h/ln	1781	0	1836	1781	1870	1585	1781	1777	1676	1781	1777	1784
Q Serve(g_s), s	1.5	0.0	6.9	3.6	4.0	1.5	0.5	8.7	8.8	2.9	6.4	6.5
Cycle Q Clear(g_c), s	1.5	0.0	6.9	3.6	4.0	1.5	0.5	8.7	8.8	2.9	6.4	6.5
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.65	1.00		0.27
Lane Grp Cap(c), veh/h	301	0	311	216	226	192	396	561	529	393	649	651
V/C Ratio(X)	0.18	0.00	0.75	0.56	0.61	0.24	0.06	0.58	0.59	0.35	0.41	0.41
Avail Cap(c_a), veh/h	563	0	580	563	591	501	501	561	529	410	649	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	22.5	23.6	23.8	22.7	12.5	16.3	16.4	12.0	13.5	13.5
Incr Delay (d2), s/veh	0.3	0.0	3.6	2.2	2.6	0.6	0.1	4.3	4.7	0.5	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.9	1.6	1.8	0.6	0.2	3.6	3.5	1.0	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	0.0	26.2	25.8	26.4	23.3	12.6	20.6	21.0	12.6	15.4	15.5
LnGrp LOS	C	A	C	C	C	C	B	C	C	B	B	B
Approach Vol, veh/h		288			304			659			675	
Approach Delay, s/veh		25.1			25.7			20.5			14.9	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	22.5		14.1	6.1	25.3		11.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	4.9	10.8		8.9	2.5	8.5		6.0				
Green Ext Time (p_c), s	0.0	2.1		0.9	0.0	2.1		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				20.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↗↘↙		↗	↗↘↙	
Traffic Volume (veh/h)	49	168	19	62	257	73	41	431	47	32	420	60
Future Volume (veh/h)	49	168	19	62	257	73	41	431	47	32	420	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	177	20	65	271	77	43	454	49	34	442	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	608	68	105	368	312	155	1692	180	67	1602	224
Arrive On Green	0.05	0.19	0.19	0.06	0.20	0.20	0.04	0.36	0.36	0.04	0.35	0.35
Sat Flow, veh/h	1781	3223	360	1781	1870	1585	3456	4686	498	1781	4528	633
Grp Volume(v), veh/h	52	97	100	65	271	77	43	328	175	34	330	175
Grp Sat Flow(s),veh/h/ln	1781	1777	1806	1781	1870	1585	1728	1702	1781	1781	1702	1756
Q Serve(g_s), s	1.5	2.4	2.4	1.8	6.9	2.1	0.6	3.5	3.5	1.0	3.5	3.6
Cycle Q Clear(g_c), s	1.5	2.4	2.4	1.8	6.9	2.1	0.6	3.5	3.5	1.0	3.5	3.6
Prop In Lane	1.00		0.20	1.00		1.00	1.00		0.28	1.00		0.36
Lane Grp Cap(c), veh/h	91	335	341	105	368	312	155	1229	643	67	1204	621
V/C Ratio(X)	0.57	0.29	0.29	0.62	0.74	0.25	0.28	0.27	0.27	0.51	0.27	0.28
Avail Cap(c_a), veh/h	175	628	639	175	662	561	340	1229	643	175	1204	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	17.7	17.7	23.4	19.2	17.3	23.5	11.5	11.5	24.0	11.8	11.8
Incr Delay (d2), s/veh	5.5	0.5	0.5	5.8	2.9	0.4	1.0	0.5	1.0	5.9	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.9	0.9	0.8	2.8	0.7	0.2	1.1	1.3	0.5	1.1	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	18.2	18.2	29.2	22.1	17.7	24.5	12.0	12.6	29.9	12.3	12.9
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		249			413			546			539	
Approach Delay, s/veh		20.5			22.4			13.2			13.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	22.9	7.5	14.1	6.8	22.5	7.1	14.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.0	5.5	3.8	4.4	2.6	5.6	3.5	8.9				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.7	0.0	2.3	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			16.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

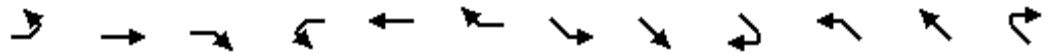
03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↗	↖↗	↕↖↗		↖	↕↖↗	
Traffic Volume (veh/h)	67	335	58	73	139	43	36	429	75	53	624	60
Future Volume (veh/h)	67	335	58	73	139	43	36	429	75	53	624	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	353	61	77	146	45	38	452	79	56	657	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	543	93	116	340	288	141	1542	263	95	1727	164
Arrive On Green	0.06	0.18	0.18	0.06	0.18	0.18	0.04	0.35	0.35	0.05	0.36	0.36
Sat Flow, veh/h	1781	3034	519	1781	1870	1585	3456	4390	750	1781	4742	451
Grp Volume(v), veh/h	71	205	209	77	146	45	38	348	183	56	470	250
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1781	1870	1585	1728	1702	1735	1781	1702	1789
Q Serve(g_s), s	2.0	5.5	5.6	2.2	3.5	1.2	0.5	3.8	3.9	1.6	5.2	5.3
Cycle Q Clear(g_c), s	2.0	5.5	5.6	2.2	3.5	1.2	0.5	3.8	3.9	1.6	5.2	5.3
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.43	1.00		0.25
Lane Grp Cap(c), veh/h	111	318	318	116	340	288	141	1196	610	95	1239	651
V/C Ratio(X)	0.64	0.65	0.66	0.67	0.43	0.16	0.27	0.29	0.30	0.59	0.38	0.38
Avail Cap(c_a), veh/h	174	624	624	174	657	557	337	1196	610	174	1239	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	19.5	19.6	23.4	18.6	17.7	23.8	12.0	12.1	23.7	12.0	12.0
Incr Delay (d2), s/veh	6.1	2.2	2.3	6.4	0.9	0.2	1.0	0.6	1.3	5.6	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.1	2.1	1.0	1.4	0.4	0.2	1.2	1.4	0.7	1.6	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	21.7	21.9	29.8	19.5	17.9	24.9	12.6	13.3	29.3	12.9	13.8
LnGrp LOS	C	C	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		485			268			569			776	
Approach Delay, s/veh		22.9			22.2			13.7			14.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	22.5	7.8	13.7	6.6	23.2	7.7	13.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.6	5.9	4.2	7.6	2.5	7.3	4.0	5.5				
Green Ext Time (p_c), s	0.0	2.4	0.0	1.6	0.0	3.1	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay				17.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

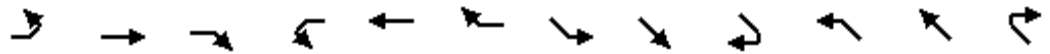
03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	72	56	50	27	52	21	21	605	52	35	542	24
Future Volume (veh/h)	72	56	50	27	52	21	21	605	52	35	542	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	61	54	29	57	23	23	658	57	38	589	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	49	476	80	120	476	47	815	691	70	797	35
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.03	0.44	0.44	0.04	0.45	0.45
Sat Flow, veh/h	0	162	1585	0	398	1585	1781	1870	1585	1781	1778	78
Grp Volume(v), veh/h	139	0	54	86	0	23	23	658	57	38	0	615
Grp Sat Flow(s),veh/h/ln	162	0	1585	398	0	1585	1781	1870	1585	1781	0	1856
Q Serve(g_s), s	0.0	0.0	1.5	0.0	0.0	0.6	0.8	18.4	1.3	1.3	0.0	16.4
Cycle Q Clear(g_c), s	18.0	0.0	1.5	18.0	0.0	0.6	0.8	18.4	1.3	1.3	0.0	16.4
Prop In Lane	0.56		1.00	0.34		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	142	0	476	200	0	476	47	815	691	70	0	832
V/C Ratio(X)	0.98	0.00	0.11	0.43	0.00	0.05	0.49	0.81	0.08	0.55	0.00	0.74
Avail Cap(c_a), veh/h	142	0	476	200	0	476	148	815	691	148	0	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	15.2	17.1	0.0	14.9	28.8	14.7	9.9	28.3	0.0	13.6
Incr Delay (d2), s/veh	67.9	0.0	0.1	1.5	0.0	0.0	7.6	8.4	0.2	6.5	0.0	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.5	0.9	0.0	0.2	0.4	8.7	0.4	0.6	0.0	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.9	0.0	15.3	18.5	0.0	15.0	36.4	23.1	10.1	34.8	0.0	19.5
LnGrp LOS	F	A	B	B	A	B	D	C	B	C	A	B
Approach Vol, veh/h		193			109			738				653
Approach Delay, s/veh		70.5			17.8			22.6				20.4
Approach LOS		E			B			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	31.4		22.5	6.8	30.7		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.8	18.4		20.0	3.3	20.4		20.0				
Green Ext Time (p_c), s	0.0	1.9		0.0	0.0	1.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				26.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	27	32	43	52	31	59	11	490	42	20	580	28
Future Volume (veh/h)	27	32	43	52	31	59	11	490	42	20	580	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	35	47	57	34	64	12	533	46	22	630	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	75	476	98	37	476	27	841	712	46	814	39
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.02	0.45	0.45	0.03	0.46	0.46
Sat Flow, veh/h	0	250	1585	0	124	1585	1781	1870	1585	1781	1771	84
Grp Volume(v), veh/h	64	0	47	91	0	64	12	533	46	22	0	660
Grp Sat Flow(s),veh/h/ln	250	0	1585	124	0	1585	1781	1870	1585	1781	0	1855
Q Serve(g_s), s	0.0	0.0	1.3	0.0	0.0	1.8	0.4	13.2	1.0	0.7	0.0	17.9
Cycle Q Clear(g_c), s	18.0	0.0	1.3	18.0	0.0	1.8	0.4	13.2	1.0	0.7	0.0	17.9
Prop In Lane	0.45		1.00	0.63		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	162	0	476	135	0	476	27	841	712	46	0	853
V/C Ratio(X)	0.39	0.00	0.10	0.68	0.00	0.13	0.45	0.63	0.06	0.48	0.00	0.77
Avail Cap(c_a), veh/h	162	0	476	135	0	476	148	841	712	148	0	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	0.0	15.1	22.9	0.0	15.3	29.3	12.7	9.4	28.8	0.0	13.6
Incr Delay (d2), s/veh	1.6	0.0	0.1	12.5	0.0	0.1	11.1	3.6	0.2	7.7	0.0	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.4	1.7	0.0	0.6	0.2	5.7	0.3	0.4	0.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	0.0	15.2	35.4	0.0	15.4	40.4	16.3	9.5	36.6	0.0	20.3
LnGrp LOS	B	A	B	D	A	B	D	B	A	D	A	C
Approach Vol, veh/h		111			155			591				682
Approach Delay, s/veh		17.3			27.2			16.3				20.9
Approach LOS		B			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	32.1		22.5	6.0	31.5		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.4	19.9		20.0	2.7	15.2		20.0				
Green Ext Time (p_c), s	0.0	1.6		0.0	0.0	2.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			19.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↗		↖	↑	↗	↖	↗	
Traffic Volume (veh/h)	33	41	85	131	51	105	116	487	178	37	471	89
Future Volume (veh/h)	33	41	85	131	51	105	116	487	178	37	471	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	45	92	142	55	114	126	529	193	40	512	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	332	281	317	96	200	482	1042	883	472	802	152
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.07	0.56	0.56	0.04	0.52	0.52
Sat Flow, veh/h	1216	1870	1585	1252	543	1125	1781	1870	1585	1781	1529	290
Grp Volume(v), veh/h	36	45	92	142	0	169	126	529	193	40	0	609
Grp Sat Flow(s),veh/h/ln	1216	1870	1585	1252	0	1668	1781	1870	1585	1781	0	1818
Q Serve(g_s), s	1.7	1.2	3.0	6.5	0.0	5.6	1.8	10.5	3.7	0.6	0.0	14.4
Cycle Q Clear(g_c), s	7.2	1.2	3.0	7.7	0.0	5.6	1.8	10.5	3.7	0.6	0.0	14.4
Prop In Lane	1.00		1.00	1.00		0.67	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	223	332	281	317	0	296	482	1042	883	472	0	954
V/C Ratio(X)	0.16	0.14	0.33	0.45	0.00	0.57	0.26	0.51	0.22	0.08	0.00	0.64
Avail Cap(c_a), veh/h	372	561	476	470	0	500	503	1042	883	548	0	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.74	0.74	0.74	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	20.8	21.5	24.0	0.0	22.6	7.3	8.2	6.7	6.4	0.0	10.2
Incr Delay (d2), s/veh	0.3	0.2	0.7	1.0	0.0	1.7	0.2	1.3	0.4	0.1	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.5	1.1	1.9	0.0	2.2	0.5	3.7	1.1	0.2	0.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	21.0	22.2	25.0	0.0	24.3	7.5	9.5	7.1	6.5	0.0	13.5
LnGrp LOS	C	C	C	C	A	C	A	A	A	A	A	B
Approach Vol, veh/h		173			311			848			649	
Approach Delay, s/veh		22.7			24.6			8.7			13.0	
Approach LOS		C			C			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	37.9		15.1	8.9	36.0		15.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	2.6	12.5		9.2	3.8	16.4		9.7				
Green Ext Time (p_c), s	0.0	3.2		0.4	0.0	2.4		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				13.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	49	92	125	69	93	107	503	128	38	505	67
Future Volume (veh/h)	29	49	92	125	69	93	107	503	128	38	505	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	53	100	136	75	101	116	547	139	41	549	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	333	283	310	129	173	473	1039	880	474	849	113
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.07	0.56	0.56	0.04	0.53	0.53
Sat Flow, veh/h	1209	1870	1585	1234	722	973	1781	1870	1585	1781	1617	215
Grp Volume(v), veh/h	32	53	100	136	0	176	116	547	139	41	0	622
Grp Sat Flow(s),veh/h/ln	1209	1870	1585	1234	0	1695	1781	1870	1585	1781	0	1832
Q Serve(g_s), s	1.5	1.4	3.3	6.3	0.0	5.7	1.7	11.0	2.6	0.6	0.0	14.6
Cycle Q Clear(g_c), s	7.2	1.4	3.3	7.7	0.0	5.7	1.7	11.0	2.6	0.6	0.0	14.6
Prop In Lane	1.00		1.00	1.00		0.57	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	220	333	283	310	0	302	473	1039	880	474	0	962
V/C Ratio(X)	0.15	0.16	0.35	0.44	0.00	0.58	0.25	0.53	0.16	0.09	0.00	0.65
Avail Cap(c_a), veh/h	368	561	476	461	0	509	497	1039	880	549	0	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	20.8	21.6	24.1	0.0	22.6	7.3	8.4	6.5	6.5	0.0	10.2
Incr Delay (d2), s/veh	0.3	0.2	0.8	1.0	0.0	1.8	0.2	1.5	0.3	0.1	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.6	1.2	1.8	0.0	2.3	0.5	3.9	0.8	0.2	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	21.1	22.4	25.1	0.0	24.4	7.5	9.9	6.8	6.6	0.0	13.6
LnGrp LOS	C	C	C	C	A	C	A	A	A	A	A	B
Approach Vol, veh/h		185			312			802				663
Approach Delay, s/veh		22.7			24.7			9.0				13.1
Approach LOS		C			C			A				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	37.8		15.2	8.8	36.0		15.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	2.6	13.0		9.2	3.7	16.6		9.7				
Green Ext Time (p_c), s	0.0	3.0		0.4	0.0	2.4		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				14.2								
HCM 6th LOS				B								

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	27	74	30	23	92	41	30	236	28	36	163	16
Future Vol, veh/h	27	74	30	23	92	41	30	236	28	36	163	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	80	33	25	100	45	33	257	30	39	177	17
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10	10.1	14.4	12.3
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	10%	100%	0%	0%	100%	0%	0%	17%
Vol Thru, %	80%	0%	100%	0%	0%	100%	0%	76%
Vol Right, %	10%	0%	0%	100%	0%	0%	100%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	294	27	74	30	23	92	41	215
LT Vol	30	27	0	0	23	0	0	36
Through Vol	236	0	74	0	0	92	0	163
RT Vol	28	0	0	30	0	0	41	16
Lane Flow Rate	320	29	80	33	25	100	45	234
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.511	0.057	0.145	0.052	0.048	0.179	0.071	0.384
Departure Headway (Hd)	5.751	7.009	6.496	5.778	6.961	6.449	5.731	5.912
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	626	510	551	618	514	555	623	608
Service Time	3.485	4.762	4.249	3.531	4.712	4.199	3.481	3.65
HCM Lane V/C Ratio	0.511	0.057	0.145	0.053	0.049	0.18	0.072	0.385
HCM Control Delay	14.4	10.2	10.4	8.9	10.1	10.6	8.9	12.3
HCM Lane LOS	B	B	B	A	B	B	A	B
HCM 95th-tile Q	2.9	0.2	0.5	0.2	0.2	0.6	0.2	1.8

Intersection												
Int Delay, s/veh	25.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	35	117	68	42	142	42	42	131	50	42	264	52
Future Vol, veh/h	35	117	68	42	142	42	42	131	50	42	264	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	105	-	0	0	-	90	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	127	74	46	154	46	46	142	54	46	287	57

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	200	0	0	201	0	0	644	495	127	584	523	154
Stage 1	-	-	-	-	-	-	203	203	-	246	246	-
Stage 2	-	-	-	-	-	-	441	292	-	338	277	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1372	-	-	1371	-	-	386	476	923	423	459	892
Stage 1	-	-	-	-	-	-	799	733	-	758	703	-
Stage 2	-	-	-	-	-	-	595	671	-	676	681	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1372	-	-	1371	-	-	161	447	923	287	431	892
Mov Cap-2 Maneuver	-	-	-	-	-	-	161	447	-	287	431	-
Stage 1	-	-	-	-	-	-	777	712	-	737	679	-
Stage 2	-	-	-	-	-	-	311	648	-	495	662	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.2			1.4			32			50.7		
HCM LOS							D			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	367	1372	-	-	1371	-	-	438
HCM Lane V/C Ratio	0.66	0.028	-	-	0.033	-	-	0.888
HCM Control Delay (s)	32	7.7	-	-	7.7	-	-	50.7
HCM Lane LOS	D	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	4.5	0.1	-	-	0.1	-	-	9.4

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	0	44	8	0	1	115	504	6	1	480	113
Future Volume (veh/h)	44	0	44	8	0	1	115	504	6	1	480	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	0	48	9	0	1	125	548	7	1	522	123
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	113	96	22	0	20	643	2638	34	689	2609	1164
Arrive On Green	0.06	0.00	0.06	0.01	0.00	0.01	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	785	3593	46	854	3554	1585
Grp Volume(v), veh/h	48	0	48	9	0	1	125	271	284	1	522	123
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	785	1777	1862	854	1777	1585
Q Serve(g_s), s	1.8	0.0	2.1	0.4	0.0	0.0	4.1	3.3	3.4	0.0	3.2	1.6
Cycle Q Clear(g_c), s	1.8	0.0	2.1	0.4	0.0	0.0	7.3	3.3	3.4	3.4	3.2	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	108	113	96	22	0	20	643	1304	1367	689	2609	1164
V/C Ratio(X)	0.45	0.00	0.50	0.40	0.00	0.05	0.19	0.21	0.21	0.00	0.20	0.11
Avail Cap(c_a), veh/h	458	481	408	458	0	408	643	1304	1367	689	2609	1164
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	31.8	0.0	31.9	34.3	0.0	34.1	4.0	2.9	2.9	3.4	2.9	2.7
Incr Delay (d2), s/veh	2.9	0.0	4.0	11.1	0.0	1.0	0.7	0.4	0.3	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.9	0.2	0.0	0.0	0.5	0.7	0.8	0.0	0.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	0.0	35.9	45.4	0.0	35.2	4.7	3.3	3.3	3.5	3.1	2.9
LnGrp LOS	C	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		96			10			680			646	
Approach Delay, s/veh		35.3			44.4			3.5			3.0	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.9		8.7		55.9		5.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		18.0		20.5		18.0				
Max Q Clear Time (g_c+I1), s		9.3		4.1		5.4		2.4				
Green Ext Time (p_c), s		3.0		0.2		3.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			5.7									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	3	116	4	0	1	67	450	7	2	453	109
Future Volume (veh/h)	148	3	116	4	0	1	67	450	7	2	453	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	161	3	126	4	0	1	73	489	8	2	492	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	233	197	12	0	10	609	2419	40	666	2403	1072
Arrive On Green	0.12	0.12	0.12	0.01	0.00	0.01	0.68	0.68	0.68	0.68	0.68	0.68
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	811	3578	58	901	3554	1585
Grp Volume(v), veh/h	161	3	126	4	0	1	73	243	254	2	492	118
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	811	1777	1860	901	1777	1585
Q Serve(g_s), s	6.1	0.1	5.3	0.2	0.0	0.0	2.6	3.6	3.6	0.1	3.6	1.8
Cycle Q Clear(g_c), s	6.1	0.1	5.3	0.2	0.0	0.0	6.2	3.6	3.6	3.7	3.6	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	222	233	197	12	0	10	609	1201	1257	666	2403	1072
V/C Ratio(X)	0.73	0.01	0.64	0.34	0.00	0.10	0.12	0.20	0.20	0.00	0.20	0.11
Avail Cap(c_a), veh/h	471	494	419	458	0	408	609	1201	1257	666	2403	1072
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	29.5	26.9	29.1	34.6	0.0	34.6	5.4	4.3	4.3	4.9	4.3	4.0
Incr Delay (d2), s/veh	4.5	0.0	3.4	16.1	0.0	3.9	0.4	0.4	0.4	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	2.1	0.1	0.0	0.0	0.4	0.9	1.0	0.0	0.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	26.9	32.6	50.7	0.0	38.4	5.8	4.6	4.6	4.9	4.4	4.2
LnGrp LOS	C	C	C	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		290			5			570			612	
Approach Delay, s/veh		33.3			48.2			4.8			4.4	
Approach LOS		C			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		51.8		13.2		51.8		5.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.5		20.0		18.0				
Max Q Clear Time (g_c+I1), s		8.2		8.1		5.7		2.2				
Green Ext Time (p_c), s		2.5		0.7		3.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				10.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 22: Arrow Hwy & Indian Hill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	
Traffic Volume (veh/h)	84	407	149	175	735	93	152	626	175	72	513	45
Future Volume (veh/h)	84	407	149	175	735	93	152	626	175	72	513	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	442	162	190	799	101	165	680	190	78	558	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	723	323	229	948	423	203	1320	589	100	1038	91
Arrive On Green	0.07	0.20	0.20	0.13	0.27	0.27	0.11	0.37	0.37	0.06	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3305	290
Grp Volume(v), veh/h	91	442	162	190	799	101	165	680	190	78	299	308
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1818
Q Serve(g_s), s	3.8	8.5	6.8	7.8	16.0	3.7	6.8	11.2	6.4	3.2	10.4	10.5
Cycle Q Clear(g_c), s	3.8	8.5	6.8	7.8	16.0	3.7	6.8	11.2	6.4	3.2	10.4	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	117	723	323	229	948	423	203	1320	589	100	558	571
V/C Ratio(X)	0.78	0.61	0.50	0.83	0.84	0.24	0.81	0.52	0.32	0.78	0.54	0.54
Avail Cap(c_a), veh/h	157	853	380	249	1038	463	226	1320	589	143	558	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	34.5	27.2	26.5	31.9	26.0	21.5	32.5	18.3	16.8	34.9	21.2	21.2
Incr Delay (d2), s/veh	16.0	1.0	1.2	13.0	4.0	0.2	18.4	1.4	1.4	12.7	2.9	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.6	2.6	4.1	6.9	1.4	3.9	4.6	2.4	1.7	4.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	28.1	27.7	44.9	30.0	21.7	50.9	19.8	18.3	47.6	24.1	24.1
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	C
Approach Vol, veh/h		695			1090			1035			685	
Approach Delay, s/veh		31.0			31.8			24.5			26.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	32.4	14.2	19.8	13.0	28.0	9.4	24.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.0	22.5	10.5	18.0	9.5	19.0	6.6	21.9				
Max Q Clear Time (g_c+I1), s	5.2	13.2	9.8	10.5	8.8	12.5	5.8	18.0				
Green Ext Time (p_c), s	0.0	3.6	0.0	2.1	0.0	2.0	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			28.5									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

22: Arrow Hwy & Indian Hill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	103	903	167	218	524	58	149	517	184	130	595	59
Future Volume (veh/h)	103	903	167	218	524	58	149	517	184	130	595	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	982	182	237	570	63	162	562	200	141	647	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	1031	460	261	1265	564	189	871	388	167	759	75
Arrive On Green	0.08	0.29	0.29	0.15	0.36	0.36	0.11	0.24	0.24	0.09	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3266	323
Grp Volume(v), veh/h	112	982	182	237	570	63	162	562	200	141	352	359
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1812
Q Serve(g_s), s	4.9	21.7	7.4	10.5	9.8	2.1	7.2	11.3	8.7	6.2	15.1	15.2
Cycle Q Clear(g_c), s	4.9	21.7	7.4	10.5	9.8	2.1	7.2	11.3	8.7	6.2	15.1	15.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	143	1031	460	261	1265	564	189	871	388	167	413	421
V/C Ratio(X)	0.78	0.95	0.40	0.91	0.45	0.11	0.86	0.65	0.52	0.84	0.85	0.85
Avail Cap(c_a), veh/h	236	1031	460	261	1265	564	189	871	388	167	413	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	36.1	27.9	22.8	33.6	19.8	17.3	35.1	27.1	26.1	35.7	29.4	29.4
Incr Delay (d2), s/veh	8.9	17.8	0.6	29.9	0.2	0.1	29.9	3.7	4.8	25.1	15.6	15.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	11.3	2.7	6.6	3.9	0.8	4.6	5.1	3.7	3.8	8.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	45.7	23.3	63.6	20.0	17.4	65.1	30.8	30.9	60.7	44.9	44.9
LnGrp LOS	D	D	C	E	B	B	E	C	C	E	D	D
Approach Vol, veh/h		1276			870			924			852	
Approach Delay, s/veh		42.4			31.7			36.8			47.5	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	24.1	16.2	27.7	13.0	23.1	10.9	33.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	19.6	11.7	23.2	8.5	18.6	10.6	24.3				
Max Q Clear Time (g_c+I1), s	8.2	13.3	12.5	23.7	9.2	17.2	6.9	11.8				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	0.6	0.1	3.3				
Intersection Summary												
HCM 6th Ctrl Delay											39.8	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	536	34	40	898	75	39	136	16	69	99	68
Future Volume (veh/h)	56	536	34	40	898	75	39	136	16	69	99	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	583	37	43	976	82	42	148	17	75	108	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	1411	89	381	1379	116	177	557	58	680	756	641
Arrive On Green	0.42	0.42	0.42	0.42	0.42	0.42	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	533	3393	215	804	3318	279	223	1377	143	1221	1870	1585
Grp Volume(v), veh/h	61	305	315	43	523	535	207	0	0	75	108	74
Grp Sat Flow(s),veh/h/ln	533	1777	1832	804	1777	1820	1743	0	0	1221	1870	1585
Q Serve(g_s), s	5.3	6.1	6.1	2.0	12.2	12.2	0.0	0.0	0.0	0.0	1.8	1.5
Cycle Q Clear(g_c), s	17.5	6.1	6.1	8.1	12.2	12.2	3.8	0.0	0.0	1.3	1.8	1.5
Prop In Lane	1.00		0.12	1.00		0.15	0.20		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	236	739	761	381	739	757	791	0	0	680	756	641
V/C Ratio(X)	0.26	0.41	0.41	0.11	0.71	0.71	0.26	0.00	0.00	0.11	0.14	0.12
Avail Cap(c_a), veh/h	254	800	824	408	800	819	791	0	0	680	756	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.61	0.61	0.61	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	10.3	10.3	13.2	12.1	12.1	10.0	0.0	0.0	9.3	9.4	9.3
Incr Delay (d2), s/veh	0.5	0.3	0.3	0.1	1.6	1.6	0.8	0.0	0.0	0.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.0	2.1	0.3	4.2	4.3	1.4	0.0	0.0	0.5	0.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.8	10.6	10.6	13.2	13.7	13.7	10.8	0.0	0.0	9.6	9.8	9.7
LnGrp LOS	B	B	B	B	B	B	B	A	A	A	A	A
Approach Vol, veh/h		681			1101			207			257	
Approach Delay, s/veh		11.4			13.7			10.8			9.7	
Approach LOS		B			B			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.7		25.3		24.7		25.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		5.8		19.5		3.8		14.2				
Green Ext Time (p_c), s		0.9		1.3		0.9		4.4				
Intersection Summary												
HCM 6th Ctrl Delay				12.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	1036	31	24	651	47	33	54	49	119	132	115
Future Volume (veh/h)	69	1036	31	24	651	47	33	54	49	119	132	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	1126	34	26	708	51	36	59	53	129	143	125
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	319	1430	43	205	1365	98	203	319	241	701	774	656
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	706	3522	106	484	3362	242	275	770	583	1281	1870	1585
Grp Volume(v), veh/h	75	568	592	26	374	385	148	0	0	129	143	125
Grp Sat Flow(s),veh/h/ln	706	1777	1851	484	1777	1827	1628	0	0	1281	1870	1585
Q Serve(g_s), s	4.5	14.0	14.0	2.5	7.9	7.9	0.0	0.0	0.0	0.0	2.4	2.5
Cycle Q Clear(g_c), s	12.4	14.0	14.0	16.4	7.9	7.9	2.7	0.0	0.0	2.3	2.4	2.5
Prop In Lane	1.00		0.06	1.00		0.13	0.24		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	319	721	751	205	721	742	763	0	0	701	774	656
V/C Ratio(X)	0.24	0.79	0.79	0.13	0.52	0.52	0.19	0.00	0.00	0.18	0.18	0.19
Avail Cap(c_a), veh/h	350	800	833	227	800	822	763	0	0	701	774	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.39	0.39	0.39	0.84	0.84	0.84	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	13.0	13.0	20.1	11.2	11.2	9.4	0.0	0.0	9.3	9.3	9.3
Incr Delay (d2), s/veh	0.1	1.9	1.9	0.2	0.5	0.5	0.6	0.0	0.0	0.6	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.9	5.1	0.3	2.6	2.7	1.0	0.0	0.0	0.8	0.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	14.9	14.8	20.4	11.7	11.7	9.9	0.0	0.0	9.8	9.8	10.0
LnGrp LOS	B	B	B	C	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1235			785			148			397	
Approach Delay, s/veh		14.9			11.9			9.9			9.9	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.2		24.8		25.2		24.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		4.7		16.0		4.5		18.4				
Green Ext Time (p_c), s		0.6		4.1		1.4		1.9				
Intersection Summary												
HCM 6th Ctrl Delay				12.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	399	36	38	667	88	96	366	51	55	230	225
Future Volume (veh/h)	157	399	36	38	667	88	96	366	51	55	230	225
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	434	39	41	725	96	104	398	55	60	250	245
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	1109	99	70	812	107	133	999	137	88	548	464
Arrive On Green	0.12	0.34	0.34	0.04	0.26	0.26	0.07	0.32	0.32	0.05	0.29	0.29
Sat Flow, veh/h	1781	3299	295	1781	3155	417	1781	3139	431	1781	1870	1585
Grp Volume(v), veh/h	171	233	240	41	408	413	104	224	229	60	250	245
Grp Sat Flow(s),veh/h/ln	1781	1777	1817	1781	1777	1795	1781	1777	1793	1781	1870	1585
Q Serve(g_s), s	6.6	7.0	7.1	1.6	15.5	15.5	4.0	6.9	7.0	2.3	7.6	9.0
Cycle Q Clear(g_c), s	6.6	7.0	7.1	1.6	15.5	15.5	4.0	6.9	7.0	2.3	7.6	9.0
Prop In Lane	1.00		0.16	1.00		0.23	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	210	597	611	70	457	462	133	566	571	88	548	464
V/C Ratio(X)	0.81	0.39	0.39	0.59	0.89	0.89	0.78	0.40	0.40	0.68	0.46	0.53
Avail Cap(c_a), veh/h	216	597	611	150	470	474	140	566	571	127	548	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	17.8	17.8	33.1	25.1	25.1	31.8	18.6	18.6	32.7	20.2	20.7
Incr Delay (d2), s/veh	19.1	0.4	0.4	7.6	18.7	18.7	23.5	2.1	2.1	9.1	2.7	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.6	2.7	0.8	8.3	8.3	2.5	2.9	3.0	1.2	3.6	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	18.1	18.2	40.6	43.8	43.7	55.4	20.7	20.7	41.8	22.9	24.9
LnGrp LOS	D	B	B	D	D	D	E	C	C	D	C	C
Approach Vol, veh/h		644			862			557			555	
Approach Delay, s/veh		26.4			43.6			27.2			25.9	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	26.8	7.2	28.0	9.7	25.0	12.7	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	20.0	5.9	21.1	5.5	19.5	8.5	18.5				
Max Q Clear Time (g_c+I1), s	4.3	9.0	3.6	9.1	6.0	11.0	8.6	17.5				
Green Ext Time (p_c), s	0.0	1.9	0.0	2.0	0.0	1.6	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				32.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↗	↕		↗	↕		↗	↕	↗
Traffic Volume (veh/h)	177	952	54	72	460	53	78	297	64	88	323	206
Future Volume (veh/h)	177	952	54	72	460	53	78	297	64	88	323	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	1035	59	78	500	58	85	323	70	96	351	224
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	1133	65	100	825	95	109	884	189	123	582	493
Arrive On Green	0.13	0.33	0.33	0.06	0.26	0.26	0.06	0.30	0.30	0.07	0.31	0.31
Sat Flow, veh/h	1781	3417	195	1781	3209	371	1781	2912	623	1781	1870	1585
Grp Volume(v), veh/h	192	538	556	78	276	282	85	195	198	96	351	224
Grp Sat Flow(s),veh/h/ln	1781	1777	1835	1781	1777	1804	1781	1777	1758	1781	1870	1585
Q Serve(g_s), s	7.9	21.8	21.8	3.2	10.2	10.3	3.5	6.5	6.6	4.0	11.9	8.5
Cycle Q Clear(g_c), s	7.9	21.8	21.8	3.2	10.2	10.3	3.5	6.5	6.6	4.0	11.9	8.5
Prop In Lane	1.00		0.11	1.00		0.21	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	232	589	608	100	457	464	109	539	533	123	582	493
V/C Ratio(X)	0.83	0.91	0.91	0.78	0.60	0.61	0.78	0.36	0.37	0.78	0.60	0.45
Avail Cap(c_a), veh/h	278	604	624	131	457	464	147	539	533	154	582	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	24.0	24.0	34.9	24.5	24.5	34.7	20.4	20.5	34.4	21.9	20.7
Incr Delay (d2), s/veh	10.7	12.9	12.6	19.6	2.2	2.3	16.8	1.9	2.0	18.0	4.6	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	10.1	10.4	1.9	4.3	4.4	2.0	2.8	2.8	2.3	5.8	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	36.9	36.6	54.5	26.8	26.8	51.5	22.3	22.5	52.3	26.5	23.7
LnGrp LOS	D	D	D	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1286			636			478			671	
Approach Delay, s/veh		37.6			30.2			27.6			29.3	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	27.3	8.7	29.4	9.1	27.8	14.3	23.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.5	19.5	5.5	25.5	6.2	19.8	11.7	19.3				
Max Q Clear Time (g_c+I1), s	6.0	8.6	5.2	23.8	5.5	13.9	9.9	12.3				
Green Ext Time (p_c), s	0.0	1.6	0.0	1.1	0.0	1.6	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				32.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	0	127	0	0	0	53	432	0	0	419	27
Future Volume (veh/h)	33	0	127	0	0	0	53	432	0	0	419	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	0	138	0	0	0	58	470	0	0	455	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	0	185	2	2	0	81	2739	1222	2	2378	1061
Arrive On Green	0.06	0.00	0.12	0.00	0.00	0.00	0.05	0.77	0.00	0.00	0.67	0.67
Sat Flow, veh/h	1781	0	1585	1781	1870	0	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	36	0	138	0	0	0	58	470	0	0	455	29
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.5	0.0	6.7	0.0	0.0	0.0	2.6	2.8	0.0	0.0	3.9	0.5
Cycle Q Clear(g_c), s	1.5	0.0	6.7	0.0	0.0	0.0	2.6	2.8	0.0	0.0	3.9	0.5
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	0	185	2	2	0	81	2739	1222	2	2378	1061
V/C Ratio(X)	0.33	0.00	0.75	0.00	0.00	0.00	0.72	0.17	0.00	0.00	0.19	0.03
Avail Cap(c_a), veh/h	401	0	614	111	421	0	154	2739	1222	111	2378	1061
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh	36.0	0.0	34.2	0.0	0.0	0.0	37.7	2.4	0.0	0.0	5.0	4.5
Incr Delay (d2), s/veh	1.7	0.0	5.9	0.0	0.0	0.0	11.3	0.1	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.9	0.0	0.0	0.0	1.3	0.5	0.0	0.0	1.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	0.0	40.0	0.0	0.0	0.0	49.0	2.6	0.0	0.0	5.2	4.5
LnGrp LOS	D	A	D	A	A	A	D	A	A	A	A	A
Approach Vol, veh/h		174			0			528			484	
Approach Delay, s/veh		39.6			0.0			7.7			5.1	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	66.2	0.0	13.8	8.1	58.0	9.4	4.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	21.0	5.0	31.0	6.9	19.1	18.0	18.0				
Max Q Clear Time (g_c+I1), s	0.0	4.8	0.0	8.7	4.6	5.9	3.5	0.0				
Green Ext Time (p_c), s	0.0	2.6	0.0	0.8	0.0	2.4	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1	128	75	12	50	61	537	3	5	451	32
Future Volume (veh/h)	50	1	128	75	12	50	61	537	3	5	451	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	1	139	82	13	54	66	584	3	5	490	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	1	188	106	37	153	86	2096	935	12	1949	869
Arrive On Green	0.06	0.12	0.12	0.06	0.12	0.12	0.05	0.59	0.59	0.01	0.55	0.55
Sat Flow, veh/h	1781	11	1575	1781	317	1316	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	54	0	140	82	0	67	66	584	3	5	490	35
Grp Sat Flow(s),veh/h/ln	1781	0	1587	1781	0	1633	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.3	0.0	6.8	3.6	0.0	3.0	2.9	6.5	0.1	0.2	5.8	0.8
Cycle Q Clear(g_c), s	2.3	0.0	6.8	3.6	0.0	3.0	2.9	6.5	0.1	0.2	5.8	0.8
Prop In Lane	1.00		0.99	1.00		0.81	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	189	106	0	190	86	2096	935	12	1949	869
V/C Ratio(X)	0.49	0.00	0.74	0.77	0.00	0.35	0.77	0.28	0.00	0.43	0.25	0.04
Avail Cap(c_a), veh/h	401	0	530	207	0	368	160	2096	935	111	1949	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	36.3	0.0	34.0	37.1	0.0	32.6	37.6	8.1	6.7	39.6	9.5	8.3
Incr Delay (d2), s/veh	3.3	0.0	5.6	11.3	0.0	1.1	13.5	0.3	0.0	21.7	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.9	1.9	0.0	1.2	1.5	2.1	0.0	0.2	2.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	0.0	39.7	48.4	0.0	33.7	51.1	8.4	6.7	61.3	9.8	8.4
LnGrp LOS	D	A	D	D	A	C	D	A	A	E	A	A
Approach Vol, veh/h		194			149			653			530	
Approach Delay, s/veh		39.6			41.8			12.7			10.2	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	51.7	9.3	14.0	8.3	48.4	9.5	13.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	21.0	9.3	26.7	7.2	18.8	18.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	8.5	5.6	8.8	4.9	7.8	4.3	5.0				
Green Ext Time (p_c), s	0.0	3.0	0.0	0.7	0.0	2.4	0.1	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			18.1									
HCM 6th LOS			B									

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	40	0	0	61	0	0
Future Vol, veh/h	40	0	0	61	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	0	0	66	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	22
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	-	0	1050
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	1050
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	1.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	77	0	2	62	0	37
Future Vol, veh/h	77	0	2	62	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	0	2	67	0	40

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	84	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-
Pot Cap-1 Maneuver	-	-	1511	-	0
Stage 1	-	-	-	-	0
Stage 2	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1511	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1019	-	-	1511	-
HCM Lane V/C Ratio	0.039	-	-	0.001	-
HCM Control Delay (s)	8.7	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	16	0	0	15
Future Vol, veh/h	0	0	16	0	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	17	0	0	16

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	9	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1070	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1070	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	37	21	0	0	97
Future Vol, veh/h	0	37	21	0	0	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	23	0	0	105

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	12	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	1065	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1065	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 1065	-
HCM Lane V/C Ratio	-	- 0.038	-
HCM Control Delay (s)	-	- 8.5	-
HCM Lane LOS	-	- A	-
HCM 95th %tile Q(veh)	-	- 0.1	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	18	13	0
Future Vol, veh/h	0	0	0	18	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	19	14	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	7	14	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-
Pot Cap-1 Maneuver	0	909	1137	-	-
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	909	1137	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1137	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	37	1	18	24	1
Future Vol, veh/h	0	37	1	18	24	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	39	1	19	25	1

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	13	26	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-
Pot Cap-1 Maneuver	0	901	1123	-	-
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	901	1123	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1123	-	901	-	-
HCM Lane V/C Ratio	0.001	-	0.043	-	-
HCM Control Delay (s)	8.2	-	9.2	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th Signalized Intersection Summary

29: Richton St & Monte Vista Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↖	↗	↗	↕		↗	↖	↖
Traffic Volume (veh/h)	0	0	0	70	0	76	0	464	54	58	536	1
Future Volume (veh/h)	0	0	0	70	0	76	0	464	54	58	536	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	74	0	80	0	488	57	61	564	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	127	198	168	5	1524	177	216	3456	6
Arrive On Green	0.00	0.00	0.00	0.07	0.00	0.11	0.00	0.48	0.48	0.06	0.66	0.66
Sat Flow, veh/h	0	-59738	0	1781	1870	1585	1781	3207	373	3456	5263	9
Grp Volume(v), veh/h	0	0	0	74	0	80	0	270	275	61	365	200
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1803	1728	1702	1869
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	1.8	0.0	3.6	3.6	0.6	1.6	1.6
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5	0.0	1.8	0.0	3.6	3.6	0.6	1.6	1.6
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.21	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	127	198	168	5	844	857	216	2235	1227
V/C Ratio(X)	0.00	0.00	0.00	0.58	0.00	0.48	0.00	0.32	0.32	0.28	0.16	0.16
Avail Cap(c_a), veh/h	0	889	0	235	889	753	235	844	857	456	2235	1227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	17.0	0.0	15.9	0.0	6.1	6.2	16.9	2.5	2.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.2	0.0	2.1	0.0	1.0	1.0	0.7	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.6	0.0	1.1	1.1	0.2	0.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	21.2	0.0	18.0	0.0	7.1	7.1	17.7	2.7	2.8
LnGrp LOS	A	A	A	C	A	B	A	A	A	B	A	A
Approach Vol, veh/h		0			154			545			626	
Approach Delay, s/veh		0.0			19.6			7.1			4.2	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	22.5	7.2	1.3	0.0	29.4		8.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.6	5.6	3.5	0.0	0.0	3.6		3.8				
Green Ext Time (p_c), s	0.0	2.7	0.0	0.0	0.0	3.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				7.2								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

29: Richton St & Monte Vista Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	0	0	0	89	0	74	1	592	75	35	722	0
Future Volume (veh/h)	0	0	0	89	0	74	1	592	75	35	722	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	94	0	78	1	623	79	37	760	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	149	209	177	5	1533	194	148	2679	0
Arrive On Green	0.00	0.00	0.00	0.08	0.00	0.11	0.00	0.48	0.48	0.04	0.52	0.00
Sat Flow, veh/h	0	-64583	0	1781	1870	1585	1781	3173	402	3456	5274	0
Grp Volume(v), veh/h	0	0	0	94	0	78	1	348	354	37	760	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1798	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	1.7	0.0	4.7	4.7	0.4	3.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.9	0.0	1.7	0.0	4.7	4.7	0.4	3.1	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.22	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	149	209	177	5	859	869	148	2679	0
V/C Ratio(X)	0.00	0.00	0.00	0.63	0.00	0.44	0.21	0.41	0.41	0.25	0.28	0.00
Avail Cap(c_a), veh/h	0	904	0	239	904	766	239	859	869	464	2679	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.5	0.0	15.5	18.6	6.2	6.2	17.3	4.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.4	0.0	1.7	20.3	1.4	1.4	0.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.8	0.0	0.6	0.0	1.4	1.4	0.1	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	20.9	0.0	17.2	38.9	7.6	7.6	18.1	5.2	0.0
LnGrp LOS	A	A	A	C	A	B	D	A	A	B	A	A
Approach Vol, veh/h		0			172			703			797	
Approach Delay, s/veh		0.0			19.2			7.7			5.8	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	22.5	7.6	1.0	4.6	24.0		8.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.4	6.7	3.9	0.0	2.0	5.1		3.7				
Green Ext Time (p_c), s	0.0	3.4	0.0	0.0	0.0	4.3		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				8.0								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

03/25/2024


























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	43	432	78	223	508	57	101	44	224	90	76	67
Future Volume (veh/h)	43	432	78	223	508	57	101	44	224	90	76	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	470	85	242	552	62	110	48	243	98	83	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	687	306	290	1104	493	599	745	664	461	788	627
Arrive On Green	0.05	0.19	0.19	0.16	0.31	0.31	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1231	1777	1585	1088	1882	1496
Grp Volume(v), veh/h	47	470	85	242	552	62	110	48	243	98	78	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1231	1777	1585	1088	1777	1601
Q Serve(g_s), s	1.6	7.4	2.7	7.9	7.6	1.7	3.6	1.0	6.3	4.1	1.6	1.8
Cycle Q Clear(g_c), s	1.6	7.4	2.7	7.9	7.6	1.7	5.4	1.0	6.3	10.4	1.6	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	81	687	306	290	1104	493	599	745	664	461	745	671
V/C Ratio(X)	0.58	0.68	0.28	0.83	0.50	0.13	0.18	0.06	0.37	0.21	0.10	0.12
Avail Cap(c_a), veh/h	172	1066	476	312	1344	600	599	745	664	461	745	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	22.5	20.6	24.3	16.9	14.8	12.3	10.4	12.0	15.5	10.6	10.6
Incr Delay (d2), s/veh	6.5	1.2	0.5	15.5	0.3	0.1	0.6	0.2	1.4	1.0	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.0	1.0	4.3	2.9	0.6	1.0	0.4	2.2	1.1	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	23.7	21.1	39.8	17.2	14.9	12.9	10.6	13.4	16.6	10.9	11.0
LnGrp LOS	C	C	C	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		602			856			401			254	
Approach Delay, s/veh		24.2			23.4			12.9			13.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.6	14.3	16.1		29.6	7.2	23.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	10.5	18.0		18.0	5.8	22.7				
Max Q Clear Time (g_c+I1), s		8.3	9.9	9.4		12.4	3.6	9.6				
Green Ext Time (p_c), s		1.6	0.0	2.2		0.6	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				20.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

























1: Indian Hill Blvd & Base Line Rd

03/25/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	444	82	236	483	72	102	54	171	59	61	57
Future Volume (veh/h)	36	444	82	236	483	72	102	54	171	59	61	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	483	89	257	525	78	111	59	186	64	66	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	701	312	304	1166	520	602	723	645	492	746	625
Arrive On Green	0.04	0.20	0.20	0.17	0.33	0.33	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1262	1777	1585	1135	1834	1537
Grp Volume(v), veh/h	39	483	89	257	525	78	111	59	186	64	64	64
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1262	1777	1585	1135	1777	1594
Q Serve(g_s), s	1.3	7.6	2.9	8.4	7.0	2.1	3.6	1.2	4.7	2.4	1.3	1.5
Cycle Q Clear(g_c), s	1.3	7.6	2.9	8.4	7.0	2.1	5.1	1.2	4.7	7.1	1.3	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.96
Lane Grp Cap(c), veh/h	71	701	312	304	1166	520	602	723	645	492	723	649
V/C Ratio(X)	0.55	0.69	0.28	0.84	0.45	0.15	0.18	0.08	0.29	0.13	0.09	0.10
Avail Cap(c_a), veh/h	166	1066	476	312	1356	605	602	723	645	492	723	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	22.4	20.5	24.1	15.9	14.2	12.6	10.9	12.0	14.4	10.9	11.0
Incr Delay (d2), s/veh	6.5	1.2	0.5	17.3	0.3	0.1	0.6	0.2	1.1	0.5	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.1	1.0	4.7	2.6	0.7	1.0	0.5	1.7	0.6	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	23.6	21.0	41.4	16.1	14.4	13.2	11.1	13.0	14.9	11.2	11.3
LnGrp LOS	C	C	C	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		611			860			356			192	
Approach Delay, s/veh		23.9			23.5			12.8			12.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.9	14.8	16.3		28.9	6.9	24.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	10.5	18.0		18.0	5.6	22.9				
Max Q Clear Time (g_c+I1), s		7.1	10.4	9.6		9.1	3.3	9.0				
Green Ext Time (p_c), s		1.4	0.0	2.3		0.6	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				20.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

03/25/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	532	123	87	511	96	111	93	73	108	85	143
Future Volume (veh/h)	75	532	123	87	511	96	111	93	73	108	85	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	578	134	95	555	104	121	101	79	117	92	155
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	830	370	124	847	378	682	844	715	674	844	715
Arrive On Green	0.06	0.23	0.23	0.07	0.24	0.24	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1304	1870	1585	1294	1870	1585
Grp Volume(v), veh/h	82	578	134	95	555	104	121	101	79	117	92	155
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1304	1870	1585	1294	1870	1585
Q Serve(g_s), s	2.5	8.2	3.9	2.9	7.8	2.9	3.2	1.7	1.6	3.2	1.6	3.3
Cycle Q Clear(g_c), s	2.5	8.2	3.9	2.9	7.8	2.9	4.8	1.7	1.6	4.9	1.6	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	830	370	124	847	378	682	844	715	674	844	715
V/C Ratio(X)	0.71	0.70	0.36	0.77	0.66	0.28	0.18	0.12	0.11	0.17	0.11	0.22
Avail Cap(c_a), veh/h	162	1163	519	178	1195	533	682	844	715	674	844	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.84	0.84	0.84	0.49	0.49	0.49	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	19.3	17.6	25.1	18.9	17.1	10.1	8.8	8.7	10.2	8.7	9.2
Incr Delay (d2), s/veh	6.8	0.9	0.5	9.8	0.7	0.3	0.3	0.1	0.2	0.6	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.1	1.3	1.5	3.0	1.0	0.8	0.6	0.5	0.9	0.6	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	20.2	18.1	34.9	19.6	17.4	10.4	8.9	8.9	10.7	9.0	9.9
LnGrp LOS	C	C	B	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		794			754			301			364	
Approach Delay, s/veh		21.1			21.3			9.5			9.9	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.3	8.3	17.4		29.3	8.1	17.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.5	18.0		18.0	5.0	18.5				
Max Q Clear Time (g_c+I1), s		6.8	4.9	10.2		6.9	4.5	9.8				
Green Ext Time (p_c), s		0.9	0.0	2.7		1.1	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay				17.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	65	552	64	84	432	79	180	87	71	99	119	134
Future Volume (veh/h)	65	552	64	84	432	79	180	87	71	99	119	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	600	70	91	470	86	196	95	77	108	129	146
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	843	376	122	872	389	646	840	712	677	840	712
Arrive On Green	0.06	0.24	0.24	0.07	0.25	0.25	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1261	1870	1585	1301	1870	1585
Grp Volume(v), veh/h	71	600	70	91	470	86	196	95	77	108	129	146
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1261	1870	1585	1301	1870	1585
Q Serve(g_s), s	2.1	8.5	1.9	2.8	6.3	2.4	6.0	1.6	1.5	2.9	2.2	3.1
Cycle Q Clear(g_c), s	2.1	8.5	1.9	2.8	6.3	2.4	8.2	1.6	1.5	4.5	2.2	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	843	376	122	872	389	646	840	712	677	840	712
V/C Ratio(X)	0.66	0.71	0.19	0.75	0.54	0.22	0.30	0.11	0.11	0.16	0.15	0.21
Avail Cap(c_a), veh/h	162	1163	519	178	1195	533	646	840	712	677	840	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.86	0.86	0.86	0.69	0.69	0.69	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	19.2	16.7	25.2	18.0	16.6	11.4	8.8	8.8	10.1	9.0	9.2
Incr Delay (d2), s/veh	5.7	1.0	0.2	8.2	0.4	0.2	0.8	0.2	0.2	0.5	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.3	0.7	1.4	2.4	0.8	1.6	0.6	0.5	0.8	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.0	20.3	16.9	33.4	18.5	16.8	12.2	9.0	9.0	10.6	9.4	9.8
LnGrp LOS	C	C	B	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		741			647			368			383	
Approach Delay, s/veh		21.0			20.4			10.7			9.9	
Approach LOS		C			C			B			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.2	8.3	17.6		29.2	7.8	18.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.5	18.0		18.0	5.0	18.5				
Max Q Clear Time (g_c+I1), s		10.2	4.8	10.5		6.5	4.1	8.3				
Green Ext Time (p_c), s		0.9	0.0	2.5		1.2	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				17.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↑	↘
Traffic Volume (veh/h)	35	547	154	537	524	137	137	113	479	149	113	52
Future Volume (veh/h)	35	547	154	537	524	137	137	113	479	149	113	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	595	167	584	570	149	149	123	521	162	123	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	737	329	662	1288	575	521	548	464	408	703	310
Arrive On Green	0.04	0.21	0.21	0.19	0.36	0.36	0.07	0.29	0.29	0.07	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2400	1057
Grp Volume(v), veh/h	38	595	167	584	570	149	149	123	521	162	89	91
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1680
Q Serve(g_s), s	1.6	12.0	7.0	12.3	9.1	5.0	4.4	3.7	22.0	4.8	2.8	3.0
Cycle Q Clear(g_c), s	1.6	12.0	7.0	12.3	9.1	5.0	4.4	3.7	22.0	4.8	2.8	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	65	737	329	662	1288	575	521	548	464	408	521	492
V/C Ratio(X)	0.59	0.81	0.51	0.88	0.44	0.26	0.29	0.22	1.12	0.40	0.17	0.18
Avail Cap(c_a), veh/h	140	853	380	668	1288	575	521	548	464	408	521	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	28.3	26.3	29.5	18.1	16.8	16.8	20.1	26.5	17.0	19.7	19.8
Incr Delay (d2), s/veh	7.1	4.5	1.1	13.0	0.2	0.2	0.3	0.9	78.1	0.6	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.1	2.5	5.9	3.3	1.6	1.7	1.6	17.4	1.8	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	32.8	27.4	42.5	18.4	17.1	17.1	20.9	104.6	17.6	20.5	20.6
LnGrp LOS	D	C	C	D	B	B	B	C	F	B	C	C
Approach Vol, veh/h		800			1303			793			342	
Approach Delay, s/veh		32.1			29.1			75.2			19.1	
Approach LOS		C			C			E			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	26.5	18.9	20.0	9.6	26.5	7.2	31.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	19.4	14.5	18.0	5.1	19.4	5.9	26.6				
Max Q Clear Time (g_c+I1), s	6.8	24.0	14.3	14.0	6.4	5.0	3.6	11.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	0.7	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay			40.1									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/25/2024




























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	33	607	123	400	510	122	102	134	546	138	81	27
Future Volume (veh/h)	33	607	123	400	510	122	102	134	546	138	81	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	660	134	435	554	133	111	146	593	150	88	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	63	785	350	518	1192	532	593	601	509	407	872	275
Arrive On Green	0.04	0.22	0.22	0.15	0.34	0.34	0.06	0.32	0.32	0.07	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2657	839
Grp Volume(v), veh/h	36	660	134	435	554	133	111	146	593	150	58	59
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1719
Q Serve(g_s), s	1.5	13.3	5.4	9.2	9.2	4.6	3.1	4.3	24.1	4.2	1.7	1.8
Cycle Q Clear(g_c), s	1.5	13.3	5.4	9.2	9.2	4.6	3.1	4.3	24.1	4.2	1.7	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	63	785	350	518	1192	532	593	601	509	407	583	564
V/C Ratio(X)	0.57	0.84	0.38	0.84	0.46	0.25	0.19	0.24	1.16	0.37	0.10	0.11
Avail Cap(c_a), veh/h	138	858	383	530	1192	532	610	601	509	407	583	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	28.0	24.9	31.0	19.6	18.1	15.3	18.7	25.5	15.4	17.5	17.5
Incr Delay (d2), s/veh	6.9	6.1	0.6	11.3	0.3	0.2	0.1	0.9	92.6	0.6	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.8	1.9	4.3	3.4	1.5	1.1	1.9	21.0	1.6	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	34.0	25.5	42.3	19.9	18.3	15.4	19.6	118.0	16.0	17.8	17.9
LnGrp LOS	D	C	C	D	B	B	B	B	F	B	B	B
Approach Vol, veh/h		830			1122			850			267	
Approach Delay, s/veh		33.0			28.4			87.7			16.8	
Approach LOS		C			C			F			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	28.6	15.7	21.1	9.1	29.1	7.1	29.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	22.3	11.5	18.1	5.3	22.1	5.8	23.8				
Max Q Clear Time (g_c+I1), s	6.2	26.1	11.2	15.3	5.1	3.8	3.5	11.2				
Green Ext Time (p_c), s	0.0	0.0	0.1	1.2	0.0	0.5	0.0	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			45.1									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp























04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 				 			
Traffic Volume (veh/h)	128	600	454	63	504	337	193	0	580	90	0	493
Future Volume (veh/h)	128	600	454	63	504	337	193	0	580	90	0	493
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	139	652	493	68	548	366	210	0	630	98	0	536
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	173	1019	455	90	853	380	860	0	0	860	0	0
Arrive On Green	0.10	0.29	0.29	0.05	0.24	0.24	0.48	0.00	0.00	0.48	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	210		1781	98	
Grp Volume(v), veh/h	139	652	493	68	548	366	210	11.5		98	10.7	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	5.7	12.0	21.5	2.8	10.4	17.1	5.2			2.3		
Cycle Q Clear(g_c), s	5.7	12.0	21.5	2.8	10.4	17.1	5.2			2.3		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	173	1019	455	90	853	380	860			860		
V/C Ratio(X)	0.80	0.64	1.08	0.76	0.64	0.96	0.24			0.11		
Avail Cap(c_a), veh/h	178	1019	455	143	853	380	860			860		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	33.1	23.4	26.7	35.2	25.6	28.2	11.4			10.6		
Incr Delay (d2), s/veh	22.0	1.4	66.8	12.1	1.7	36.2	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	3.4	4.7	15.6	1.4	4.2	9.7	1.8			0.8		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.2	24.7	93.6	47.2	27.3	64.4	11.5			10.7		
LnGrp LOS	E	C	F	D	C	E	B			B		
Approach Vol, veh/h		1284			982							
Approach Delay, s/veh		54.4			42.5							
Approach LOS		D			D							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	40.7		8.3	26.0	40.7		11.8	22.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	9.7		6.0	19.5	10.5		7.5	18.0				
Max Q Clear Time (g_c+I1), s	4.3		4.8	23.5	7.2		7.7	19.1				
Green Ext Time (p_c), s	0.1		0.0	0.0	0.2		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			44.7									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	601	485	48	437	347	130	0	696	76	0	464
Future Volume (veh/h)	199	601	485	48	437	347	130	0	696	76	0	464
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	216	653	527	52	475	377	141	0	757	83	0	504
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	256	1207	538	79	853	380	777	0	0	777	0	0
Arrive On Green	0.14	0.34	0.34	0.04	0.24	0.24	0.44	0.00	0.00	0.44	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	141		1781	83	
Grp Volume(v), veh/h	216	653	527	52	475	377	141	13.1		83	12.6	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	8.9	11.1	24.7	2.2	8.8	17.8	3.6			2.1		
Cycle Q Clear(g_c), s	8.9	11.1	24.7	2.2	8.8	17.8	3.6			2.1		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	256	1207	538	79	853	380	777			777		
V/C Ratio(X)	0.84	0.54	0.98	0.66	0.56	0.99	0.18			0.11		
Avail Cap(c_a), veh/h	273	1207	538	121	853	380	777			777		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	31.3	20.0	24.5	35.3	25.0	28.4	12.9			12.5		
Incr Delay (d2), s/veh	19.9	0.5	33.3	9.1	0.8	43.6	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.9	4.2	13.0	1.1	3.5	10.7	1.3			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	20.5	57.8	44.4	25.8	72.1	13.1			12.6		
LnGrp LOS	D	C	E	D	C	E	B			B		
Approach Vol, veh/h		1396			904							
Approach Delay, s/veh		39.3			46.2							
Approach LOS		D			D							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	37.2		7.8	30.0	37.2		15.3	22.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	6.2		5.1	24.4	7.5		11.5	18.0				
Max Q Clear Time (g_c+I1), s	4.1		4.2	26.7	5.6		10.9	19.8				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			39.4									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis
5: Monte Vista Ave & Claremont Blvd

04/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	234	0	18	1	0	0	19	468	1	1	520	223
Future Volume (vph)	234	0	18	1	0	0	19	468	1	1	520	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1612	1504		1770		1770	3538		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.46	1.00	1.00
Satd. Flow (perm)	1681	1612	1504		1863		1770	3538		865	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	254	0	20	1	0	0	21	509	1	1	565	242
RTOR Reduction (vph)	0	111	15	0	0	0	0	0	0	0	0	101
Lane Group Flow (vph)	127	18	3	0	1	0	21	510	0	1	565	141
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	11.3	11.3	11.3		1.2		3.0	54.0		46.5	46.5	46.5
Effective Green, g (s)	11.3	11.3	11.3		1.2		3.0	54.0		46.5	46.5	46.5
Actuated g/C Ratio	0.14	0.14	0.14		0.01		0.04	0.68		0.58	0.58	0.58
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	237	227	212		27		66	2388		502	2057	920
v/s Ratio Prot	c0.08	0.01					0.01	c0.14			c0.16	
v/s Ratio Perm			0.00		c0.00					0.00		0.09
v/c Ratio	0.54	0.08	0.01		0.04		0.32	0.21		0.00	0.27	0.15
Uniform Delay, d1	31.9	29.8	29.5		38.8		37.5	4.9		7.0	8.3	7.7
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.3	0.2	0.0		0.6		2.8	0.2		0.0	0.3	0.4
Delay (s)	34.2	30.0	29.6		39.4		40.3	5.1		7.0	8.7	8.1
Level of Service	C	C	C		D		D	A		A	A	A
Approach Delay (s)		31.9			39.4			6.5			8.5	
Approach LOS		C			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.8				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.32									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			18.0		
Intersection Capacity Utilization			34.0%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	261	0	23	4	7	1	12	437	2	2	431	196
Future Volume (vph)	261	0	23	4	7	1	12	437	2	2	431	196
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1611	1504		1815		1770	3537		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.48	1.00	1.00
Satd. Flow (perm)	1681	1611	1504		1843		1770	3537		893	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	284	0	25	4	8	1	13	475	2	2	468	213
RTOR Reduction (vph)	0	120	19	0	1	0	0	0	0	0	0	89
Lane Group Flow (vph)	145	22	3	0	12	0	13	477	0	2	468	124
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	
Permitted Phases			4	8						6		6
Actuated Green, G (s)	12.3	12.3	12.3		1.5		1.5	52.7		46.7	46.7	46.7
Effective Green, g (s)	12.3	12.3	12.3		1.5		1.5	52.7		46.7	46.7	46.7
Actuated g/C Ratio	0.15	0.15	0.15		0.02		0.02	0.66		0.58	0.58	0.58
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	258	247	231		34		33	2329		521	2065	924
v/s Ratio Prot	c0.09	0.01					0.01	c0.13			c0.13	
v/s Ratio Perm			0.00		c0.01					0.00		0.08
v/c Ratio	0.56	0.09	0.01		0.35		0.39	0.20		0.00	0.23	0.13
Uniform Delay, d1	31.4	29.0	28.7		38.8		38.8	5.4		6.9	8.0	7.5
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.8	0.2	0.0		6.2		7.6	0.2		0.0	0.3	0.3
Delay (s)	34.1	29.2	28.7		45.0		46.4	5.6		7.0	8.2	7.8
Level of Service	C	C	C		D		D	A		A	A	A
Approach Delay (s)		31.5			45.0			6.7			8.1	
Approach LOS		C			D			A			A	

Intersection Summary		
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.30	B
Actuated Cycle Length (s)	80.0	Sum of lost time (s)
Intersection Capacity Utilization	33.8%	18.0
Analysis Period (min)	15	ICU Level of Service
		A

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 6: Foothill Blvd & Indian Hill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷	↷	↶	↷		↶	↷	↷
Traffic Volume (veh/h)	64	674	152	150	675	86	200	273	148	130	243	74
Future Volume (veh/h)	64	674	152	150	675	86	200	273	148	130	243	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	733	165	163	734	93	217	297	161	141	264	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	775	174	194	1162	518	254	671	355	176	476	404
Arrive On Green	0.05	0.27	0.27	0.11	0.33	0.33	0.14	0.30	0.30	0.10	0.25	0.25
Sat Flow, veh/h	1781	2882	649	1781	3554	1585	1781	2247	1187	1781	1870	1585
Grp Volume(v), veh/h	70	452	446	163	734	93	217	233	225	141	264	80
Grp Sat Flow(s),veh/h/ln	1781	1777	1754	1781	1777	1585	1781	1777	1657	1781	1870	1585
Q Serve(g_s), s	3.1	20.0	20.0	7.2	14.0	3.4	9.5	8.5	8.8	6.2	9.8	3.2
Cycle Q Clear(g_c), s	3.1	20.0	20.0	7.2	14.0	3.4	9.5	8.5	8.8	6.2	9.8	3.2
Prop In Lane	1.00		0.37	1.00		1.00	1.00		0.72	1.00		1.00
Lane Grp Cap(c), veh/h	90	478	471	194	1162	518	254	531	495	176	476	404
V/C Ratio(X)	0.78	0.95	0.95	0.84	0.63	0.18	0.85	0.44	0.45	0.80	0.55	0.20
Avail Cap(c_a), veh/h	131	478	471	194	1162	518	256	531	495	216	476	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	37.5	28.7	28.7	35.0	22.8	19.2	33.5	22.6	22.7	35.3	25.9	23.4
Incr Delay (d2), s/veh	16.2	28.1	28.4	26.9	1.1	0.2	23.2	2.6	3.0	14.4	4.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	11.5	11.4	4.4	5.6	1.2	5.6	3.7	3.6	3.3	4.7	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	56.8	57.1	61.9	23.9	19.4	56.7	25.3	25.7	49.7	29.9	24.4
LnGrp LOS	D	E	E	E	C	B	E	C	C	D	C	C
Approach Vol, veh/h		968			990			675			485	
Approach Delay, s/veh		56.7			29.8			35.5			34.7	
Approach LOS		E			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	28.4	13.2	26.0	15.9	24.9	8.5	30.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.7	22.1	8.7	21.5	11.5	20.3	5.9	24.3				
Max Q Clear Time (g_c+I1), s	8.2	10.8	9.2	22.0	11.5	11.8	5.1	16.0				
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.0	1.1	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay			40.2									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
6: Foothill Blvd & Indian Hill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕	↗	↖	↕		↗	↕	↖
Traffic Volume (veh/h)	55	663	126	125	606	81	190	239	142	122	227	90
Future Volume (veh/h)	55	663	126	125	606	81	190	239	142	122	227	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	721	137	136	659	88	207	260	154	133	247	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	789	150	169	1115	497	245	700	401	167	520	440
Arrive On Green	0.05	0.26	0.26	0.10	0.31	0.31	0.14	0.32	0.32	0.09	0.28	0.28
Sat Flow, veh/h	1781	2979	566	1781	3554	1585	1781	2176	1247	1781	1870	1585
Grp Volume(v), veh/h	60	430	428	136	659	88	207	211	203	133	247	98
Grp Sat Flow(s),veh/h/ln	1781	1777	1769	1781	1777	1585	1781	1777	1646	1781	1870	1585
Q Serve(g_s), s	2.7	18.8	18.8	6.0	12.5	3.2	9.1	7.3	7.6	5.9	8.8	3.8
Cycle Q Clear(g_c), s	2.7	18.8	18.8	6.0	12.5	3.2	9.1	7.3	7.6	5.9	8.8	3.8
Prop In Lane	1.00		0.32	1.00		1.00	1.00		0.76	1.00		1.00
Lane Grp Cap(c), veh/h	82	470	468	169	1115	497	245	571	529	167	520	440
V/C Ratio(X)	0.73	0.91	0.91	0.80	0.59	0.18	0.85	0.37	0.38	0.80	0.48	0.22
Avail Cap(c_a), veh/h	149	478	475	189	1115	497	256	571	529	212	520	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	37.7	28.5	28.5	35.5	23.1	19.9	33.7	20.9	21.0	35.5	24.0	22.2
Incr Delay (d2), s/veh	11.8	21.9	22.1	19.7	0.8	0.2	21.6	1.8	2.1	13.2	2.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	10.2	10.2	3.4	4.9	1.1	5.2	3.1	3.1	3.1	4.1	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	50.4	50.6	55.2	24.0	20.1	55.2	22.7	23.1	48.7	26.7	23.2
LnGrp LOS	D	D	D	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		918			883			621			478	
Approach Delay, s/veh		50.5			28.4			33.7			32.1	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	30.2	12.1	25.7	15.5	26.7	8.2	29.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	22.5	8.5	21.5	11.5	20.5	6.7	23.3				
Max Q Clear Time (g_c+I1), s	7.9	9.6	8.0	20.8	11.1	10.8	4.7	14.5				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.4	0.0	1.2	0.0	3.0				
Intersection Summary												
HCM 6th Ctrl Delay				37.1								
HCM 6th LOS				D								

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗			↗			↗
Traffic Vol, veh/h	46	883	56	75	843	11	0	0	107	0	0	47
Future Vol, veh/h	46	883	56	75	843	11	0	0	107	0	0	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	960	61	82	916	12	0	0	116	0	0	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	928	0	0	1021	0	0	-	-	480	-	-	458
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	733	-	-	675	-	-	0	0	532	0	0	550
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	733	-	-	675	-	-	-	-	532	-	-	550
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.9			13.7			12.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	532	733	-	-	675	-	-	550
HCM Lane V/C Ratio	0.219	0.068	-	-	0.121	-	-	0.093
HCM Control Delay (s)	13.7	10.3	-	-	11.1	-	-	12.2
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.8	0.2	-	-	0.4	-	-	0.3

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗			↗			↗
Traffic Vol, veh/h	44	988	61	91	845	24	0	0	138	0	0	46
Future Vol, veh/h	44	988	61	91	845	24	0	0	138	0	0	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	1074	66	99	918	26	0	0	150	0	0	50

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	944	0	0	1140	0	0	-	-	537	-	-	459
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	722	-	-	609	-	-	0	0	488	0	0	549
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	722	-	-	609	-	-	-	-	488	-	-	549
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			1.1			15.6			12.2		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	488	722	-	-	609	-	-	549
HCM Lane V/C Ratio	0.307	0.066	-	-	0.162	-	-	0.091
HCM Control Delay (s)	15.6	10.3	-	-	12.1	-	-	12.2
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.3	0.2	-	-	0.6	-	-	0.3

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	9	963	30	37	913	10	37	5	26	27	8	0
Future Volume (veh/h)	9	963	30	37	913	10	37	5	26	27	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1047	33	40	992	11	40	5	28	29	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1450	647	228	1469	16	422	74	240	578	163	0
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.00
Sat Flow, veh/h	562	3554	1585	522	3600	40	754	181	582	1095	396	0
Grp Volume(v), veh/h	10	1047	33	40	490	513	73	0	0	38	0	0
Grp Sat Flow(s),veh/h/ln	562	1777	1585	522	1777	1863	1517	0	0	1491	0	0
Q Serve(g_s), s	0.7	12.4	0.6	3.5	11.3	11.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.0	12.4	0.6	15.8	11.3	11.3	1.3	0.0	0.0	0.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.55		0.38	0.76		0.00
Lane Grp Cap(c), veh/h	247	1450	647	228	725	760	736	0	0	741	0	0
V/C Ratio(X)	0.04	0.72	0.05	0.18	0.68	0.68	0.10	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	270	1599	713	250	800	838	736	0	0	741	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.0	12.4	8.9	19.1	12.1	12.1	9.0	0.0	0.0	8.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.5	0.0	0.2	1.2	1.2	0.3	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.9	0.2	0.4	3.5	3.7	0.5	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	13.9	9.0	19.3	13.3	13.3	9.3	0.0	0.0	9.0	0.0	0.0
LnGrp LOS	B	B	A	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1090			1043			73			38	
Approach Delay, s/veh		13.8			13.5			9.3			9.0	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.1		24.9		25.1		24.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		3.3		14.4		2.6		17.8				
Green Ext Time (p_c), s		0.2		4.3		0.1		2.6				
Intersection Summary												
HCM 6th Ctrl Delay				13.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	14	959	27	32	1000	10	16	2	24	10	4	0
Future Volume (veh/h)	14	959	27	32	1000	10	16	2	24	10	4	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	1042	29	35	1087	11	17	2	26	11	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	1373	613	230	1393	14	307	75	371	572	188	0
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.41	0.41	0.41	0.41	0.41	0.00
Sat Flow, veh/h	514	3554	1585	527	3604	36	475	181	898	1047	454	0
Grp Volume(v), veh/h	15	1042	29	35	536	562	45	0	0	15	0	0
Grp Sat Flow(s),veh/h/ln	514	1777	1585	527	1777	1864	1555	0	0	1501	0	0
Q Serve(g_s), s	1.2	11.5	0.5	2.8	11.9	11.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.1	11.5	0.5	14.2	11.9	11.9	0.7	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.38		0.58	0.73		0.00
Lane Grp Cap(c), veh/h	222	1373	613	230	687	720	753	0	0	759	0	0
V/C Ratio(X)	0.07	0.76	0.05	0.15	0.78	0.78	0.06	0.00	0.00	0.02	0.00	0.00
Avail Cap(c_a), veh/h	229	1421	634	237	711	746	753	0	0	759	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.52	0.52	0.52	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.9	12.0	8.6	18.2	12.1	12.1	7.9	0.0	0.0	7.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	2.3	0.0	0.2	2.9	2.8	0.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.6	0.1	0.3	3.9	4.0	0.2	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	14.3	8.7	18.3	15.0	14.9	8.1	0.0	0.0	7.8	0.0	0.0
LnGrp LOS	B	B	A	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1086			1133			45			15	
Approach Delay, s/veh		14.2			15.1			8.1			7.8	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.1		21.9		23.1		21.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.7		15.1		2.2		16.2				
Green Ext Time (p_c), s		0.1		1.8		0.0		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				14.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	922	18	22	769	127	5	6	41	164	5	166
Future Volume (veh/h)	165	922	18	22	769	127	5	6	41	164	5	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	1002	20	24	836	138	5	7	45	178	5	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	1273	25	46	931	415	213	274	430	215	838	710
Arrive On Green	0.12	0.36	0.36	0.03	0.26	0.26	0.27	0.27	0.27	0.12	0.45	0.45
Sat Flow, veh/h	1781	3563	71	1781	3554	1585	551	1011	1585	1781	1870	1585
Grp Volume(v), veh/h	179	500	522	24	836	138	12	0	45	178	5	180
Grp Sat Flow(s),veh/h/ln	1781	1777	1858	1781	1777	1585	1562	0	1585	1781	1870	1585
Q Serve(g_s), s	7.9	20.1	20.1	1.1	18.2	5.6	0.0	0.0	1.7	7.8	0.1	5.7
Cycle Q Clear(g_c), s	7.9	20.1	20.1	1.1	18.2	5.6	0.4	0.0	1.7	7.8	0.1	5.7
Prop In Lane	1.00		0.04	1.00		1.00	0.42		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	635	664	46	931	415	487	0	430	215	838	710
V/C Ratio(X)	0.83	0.79	0.79	0.52	0.90	0.33	0.02	0.00	0.10	0.83	0.01	0.25
Avail Cap(c_a), veh/h	234	635	664	114	955	426	487	0	430	234	838	710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	0.81	0.81	0.81	1.00	0.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	34.3	23.0	23.0	38.5	28.5	23.9	21.4	0.0	21.9	34.4	12.2	13.7
Incr Delay (d2), s/veh	13.7	4.2	4.0	7.2	9.3	0.4	0.1	0.0	0.5	19.4	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	8.3	8.7	0.5	8.3	2.0	0.2	0.0	0.7	4.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	27.2	27.0	45.7	37.8	24.3	21.5	0.0	22.4	53.7	12.2	14.6
LnGrp LOS	D	C	C	D	D	C	C	A	C	D	B	B
Approach Vol, veh/h		1201			998			57				363
Approach Delay, s/veh		30.2			36.1			22.2				33.7
Approach LOS		C			D			C				C
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	14.2	26.2	6.6	33.1		40.4	14.2	25.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	19.5	5.1	26.9		34.5	10.5	21.5				
Max Q Clear Time (g_c+I1), s	9.8	3.7	3.1	22.1		7.7	9.9	20.2				
Green Ext Time (p_c), s	0.0	0.1	0.0	2.5		0.6	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				32.8								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↖		↖	↖	↖	↕	↖
Traffic Volume (veh/h)	145	832	11	46	815	190	9	3	18	87	1	147
Future Volume (veh/h)	145	832	11	46	815	190	9	3	18	87	1	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	904	12	50	886	207	10	3	20	95	1	160
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	1214	16	79	978	436	381	103	463	122	794	673
Arrive On Green	0.11	0.34	0.34	0.04	0.28	0.28	0.29	0.29	0.29	0.07	0.42	0.42
Sat Flow, veh/h	1781	3591	48	1781	3554	1585	994	353	1585	1781	1870	1585
Grp Volume(v), veh/h	158	447	469	50	886	207	13	0	20	95	1	160
Grp Sat Flow(s),veh/h/ln	1781	1777	1862	1781	1777	1585	1347	0	1585	1781	1870	1585
Q Serve(g_s), s	6.1	15.6	15.6	1.9	16.8	7.6	0.0	0.0	0.6	3.7	0.0	4.5
Cycle Q Clear(g_c), s	6.1	15.6	15.6	1.9	16.8	7.6	0.3	0.0	0.6	3.7	0.0	4.5
Prop In Lane	1.00		0.03	1.00		1.00	0.77		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	601	629	79	978	436	484	0	463	122	794	673
V/C Ratio(X)	0.83	0.74	0.74	0.63	0.91	0.47	0.03	0.00	0.04	0.78	0.00	0.24
Avail Cap(c_a), veh/h	191	601	629	130	990	442	484	0	463	140	794	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	0.83	0.83	0.83	1.00	0.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	30.6	20.5	20.5	32.9	24.5	21.1	17.7	0.0	17.8	32.1	11.6	12.9
Incr Delay (d2), s/veh	15.5	2.9	2.7	6.7	9.9	0.7	0.1	0.0	0.2	21.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	6.2	6.4	0.9	7.7	2.6	0.2	0.0	0.2	2.2	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	23.4	23.2	39.6	34.4	21.8	17.8	0.0	17.9	53.1	11.6	13.7
LnGrp LOS	D	C	C	D	C	C	B	A	B	D	B	B
Approach Vol, veh/h		1074			1143			33			256	
Approach Delay, s/veh		26.6			32.4			17.9			28.3	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	6	7	8					
Phs Duration (G+Y+Rc), s	9.3	24.9	7.6	28.2	34.2	12.0	23.8					
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s	5.5	19.5	5.1	21.9	29.5	7.5	19.5					
Max Q Clear Time (g_c+I1), s	5.7	2.6	3.9	17.6	6.5	8.1	18.8					
Green Ext Time (p_c), s	0.0	0.1	0.0	2.1	0.5	0.0	0.4					
Intersection Summary												
HCM 6th Ctrl Delay				29.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

04/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑↑		↘	↑↑	
Traffic Volume (veh/h)	147	708	211	166	665	41	114	201	103	64	187	87
Future Volume (veh/h)	147	708	211	166	665	41	114	201	103	64	187	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	160	770	229	180	723	45	124	218	112	70	203	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	978	436	224	1020	455	898	862	426	441	891	402
Arrive On Green	0.11	0.28	0.28	0.13	0.29	0.29	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2098	2303	1139	1050	2381	1073
Grp Volume(v), veh/h	160	770	229	180	723	45	124	166	164	70	150	148
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1049	1777	1665	1050	1777	1677
Q Serve(g_s), s	5.2	12.0	7.3	5.9	10.9	1.2	2.6	3.9	4.1	3.0	3.4	3.6
Cycle Q Clear(g_c), s	5.2	12.0	7.3	5.9	10.9	1.2	6.2	3.9	4.1	7.1	3.4	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		0.64
Lane Grp Cap(c), veh/h	203	978	436	224	1020	455	898	665	623	441	665	628
V/C Ratio(X)	0.79	0.79	0.53	0.80	0.71	0.10	0.14	0.25	0.26	0.16	0.22	0.24
Avail Cap(c_a), veh/h	282	1125	502	252	1066	476	898	665	623	441	665	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	20.1	18.4	25.5	19.1	15.7	15.0	13.0	13.0	15.5	12.8	12.9
Incr Delay (d2), s/veh	6.4	2.2	0.6	15.5	2.1	0.1	0.3	0.9	1.0	0.8	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.6	2.4	3.2	4.2	0.4	0.6	1.5	1.5	0.7	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	22.3	19.1	41.1	21.2	15.8	15.3	13.8	14.0	16.2	13.6	13.8
LnGrp LOS	C	C	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		1159			948			454			368	
Approach Delay, s/veh		23.0			24.7			14.3			14.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.0	12.0	21.0		27.0	11.3	21.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	8.5	19.0		19.0	9.5	18.0				
Max Q Clear Time (g_c+I1), s		8.2	7.9	14.0		9.1	7.2	12.9				
Green Ext Time (p_c), s		1.8	0.0	2.5		1.3	0.1	2.1				
Intersection Summary												
HCM 6th Ctrl Delay				21.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	125	716	105	118	644	49	216	203	124	54	163	73
Future Volume (veh/h)	125	716	105	118	644	49	216	203	124	54	163	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	136	778	114	128	700	53	235	221	135	59	177	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	965	431	164	946	422	1030	886	520	469	996	427
Arrive On Green	0.10	0.27	0.27	0.09	0.27	0.27	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2180	2156	1264	1025	2422	1038
Grp Volume(v), veh/h	136	778	114	128	700	53	235	181	175	59	128	128
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1090	1777	1643	1025	1777	1684
Q Serve(g_s), s	4.5	12.2	3.4	4.2	10.8	1.5	4.6	4.0	4.2	2.4	2.7	2.9
Cycle Q Clear(g_c), s	4.5	12.2	3.4	4.2	10.8	1.5	7.5	4.0	4.2	6.6	2.7	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.77	1.00		0.62
Lane Grp Cap(c), veh/h	174	965	431	164	946	422	1030	730	675	469	730	692
V/C Ratio(X)	0.78	0.81	0.26	0.78	0.74	0.13	0.23	0.25	0.26	0.13	0.18	0.19
Avail Cap(c_a), veh/h	252	1096	489	252	1096	489	1030	730	675	469	730	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	20.4	17.1	26.6	20.1	16.7	13.7	11.6	11.6	13.8	11.2	11.3
Incr Delay (d2), s/veh	6.4	2.7	0.2	8.1	2.3	0.1	0.5	0.8	0.9	0.6	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.8	1.1	2.0	4.2	0.5	1.0	1.5	1.4	0.6	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	23.1	17.4	34.8	22.4	16.8	14.2	12.4	12.6	14.4	11.7	11.9
LnGrp LOS	C	C	B	C	C	B	B	B	B	B	B	B
Approach Vol, veh/h		1028			881			591			315	
Approach Delay, s/veh		23.7			23.9			13.1			12.3	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.2	10.0	20.8		29.2	10.4	20.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	8.5	18.5		19.5	8.5	18.5				
Max Q Clear Time (g_c+I1), s		9.5	6.2	14.2		8.6	6.5	12.8				
Green Ext Time (p_c), s		2.3	0.1	2.1		1.2	0.1	2.2				
Intersection Summary												
HCM 6th Ctrl Delay				20.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	689	147	128	664	161	150	271	94	147	327	85
Future Volume (veh/h)	36	689	147	128	664	161	150	271	94	147	327	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	725	155	135	699	169	158	285	99	155	344	89
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	914	408	255	1038	463	265	1054	470	264	1208	300
Arrive On Green	0.04	0.26	0.26	0.07	0.29	0.29	0.08	0.30	0.30	0.08	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4079	1013
Grp Volume(v), veh/h	38	725	155	135	699	169	158	285	99	155	285	148
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1688
Q Serve(g_s), s	1.3	11.6	4.9	2.3	10.5	5.1	2.7	3.7	2.8	2.6	3.9	4.1
Cycle Q Clear(g_c), s	1.3	11.6	4.9	2.3	10.5	5.1	2.7	3.7	2.8	2.6	3.9	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.60
Lane Grp Cap(c), veh/h	69	914	408	255	1038	463	265	1054	470	264	1008	500
V/C Ratio(X)	0.55	0.79	0.38	0.53	0.67	0.37	0.60	0.27	0.21	0.59	0.28	0.30
Avail Cap(c_a), veh/h	147	1053	470	284	1053	470	284	1054	470	284	1008	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	21.1	18.6	27.1	19.0	17.0	27.1	16.3	16.0	27.1	16.4	16.5
Incr Delay (d2), s/veh	6.6	3.7	0.6	1.7	1.7	0.5	3.0	0.6	1.0	2.8	0.7	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.7	1.6	0.9	4.0	1.7	1.1	1.4	1.0	1.1	1.4	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	24.8	19.2	28.8	20.6	17.5	30.2	17.0	17.1	29.9	17.1	18.0
LnGrp LOS	D	C	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		918			1003			542			588	
Approach Delay, s/veh		24.3			21.2			20.8			20.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	22.5	9.0	20.1	9.2	22.5	6.9	22.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.6	5.7	4.3	13.6	4.7	6.1	3.3	12.5				
Green Ext Time (p_c), s	0.0	1.5	0.0	2.1	0.0	1.9	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			22.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	761	114	110	651	134	122	222	93	104	283	35
Future Volume (veh/h)	99	761	114	110	651	134	122	222	93	104	283	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	801	120	116	685	141	128	234	98	109	298	37
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	961	429	243	945	421	250	1056	471	238	1354	164
Arrive On Green	0.07	0.27	0.27	0.07	0.27	0.27	0.07	0.30	0.30	0.07	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4614	559
Grp Volume(v), veh/h	104	801	120	116	685	141	128	234	98	109	218	117
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1770
Q Serve(g_s), s	3.5	13.0	3.7	2.0	10.7	4.4	2.2	3.0	2.8	1.9	3.0	3.1
Cycle Q Clear(g_c), s	3.5	13.0	3.7	2.0	10.7	4.4	2.2	3.0	2.8	1.9	3.0	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	133	961	429	243	945	421	250	1056	471	238	999	519
V/C Ratio(X)	0.78	0.83	0.28	0.48	0.72	0.33	0.51	0.22	0.21	0.46	0.22	0.23
Avail Cap(c_a), veh/h	145	1043	465	282	1043	465	282	1056	471	282	999	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	21.1	17.7	27.4	20.5	18.1	27.4	16.2	16.1	27.5	16.3	16.4
Incr Delay (d2), s/veh	22.0	5.6	0.4	1.5	2.3	0.5	1.6	0.5	1.0	1.4	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.4	1.2	0.8	4.2	1.5	0.9	1.1	1.0	0.7	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	26.6	18.0	28.9	22.7	18.6	29.0	16.7	17.2	28.8	16.9	17.4
LnGrp LOS	D	C	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		1025			942			460				444
Approach Delay, s/veh		28.0			22.9			20.2				19.9
Approach LOS		C			C			C				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	22.7	8.8	21.1	8.9	22.5	9.1	20.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.9	5.0	4.0	15.0	4.2	5.1	5.5	12.7				
Green Ext Time (p_c), s	0.0	1.3	0.0	1.6	0.0	1.5	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay				23.8								
HCM 6th LOS				C								

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	807	172	310	808	0	172	0	355	1	0	0
Future Volume (vph)	15	807	172	310	808	0	172	0	355	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		0.95	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1457	1504		3362	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1457	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	849	181	326	851	0	181	0	374	1	0	0
RTOR Reduction (vph)	0	0	101	0	0	0	0	129	139	0	0	0
Lane Group Flow (vph)	16	849	80	326	851	0	163	69	55	0	1	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	412	425		55	
v/s Ratio Prot	0.01	c0.24		c0.09	c0.24		c0.10	0.05				
v/s Ratio Perm			0.05						0.04		c0.00	
v/c Ratio	0.67	0.70	0.15	1.22	0.59		0.34	0.17	0.13		0.02	
Uniform Delay, d1	31.4	18.2	14.6	29.5	14.9		18.2	17.3	17.1		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	52.8	1.9	0.1	126.5	0.7		2.0	0.9	0.6		0.1	
Delay (s)	84.2	20.1	14.7	156.0	15.5		20.2	18.2	17.7		31.1	
Level of Service	F	C	B	F	B		C	B	B		C	
Approach Delay (s)		20.1			54.4			18.6			31.1	
Approach LOS		C			D			B			C	

Intersection Summary

HCM 2000 Control Delay	34.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗		↖	↗	↘		↗	↘
Traffic Volume (vph)	14	847	179	296	729	0	166	0	337	0	0	2
Future Volume (vph)	14	847	179	296	729	0	166	0	337	0	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1458	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1458	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	892	188	312	767	0	175	0	355	0	0	2
RTOR Reduction (vph)	0	0	100	0	0	0	0	122	133	0	2	0
Lane Group Flow (vph)	15	892	88	312	767	0	157	66	52	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	412	425		47	
v/s Ratio Prot	0.01	c0.25		c0.09	c0.22		c0.09	0.05			c0.00	
v/s Ratio Perm			0.06						0.03			
v/c Ratio	0.62	0.74	0.16	1.16	0.53		0.33	0.16	0.12		0.00	
Uniform Delay, d1	31.4	18.5	14.7	29.5	14.4		18.2	17.2	17.1		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	41.4	2.4	0.1	106.8	0.4		1.9	0.8	0.6		0.0	
Delay (s)	72.7	20.9	14.8	136.3	14.8		20.0	18.1	17.6		31.0	
Level of Service	E	C	B	F	B		C	B	B		C	
Approach Delay (s)		20.6			49.9			18.5			31.0	
Approach LOS		C			D			B			C	

Intersection Summary

HCM 2000 Control Delay	31.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	9	9	25	10	45	3	568	42	28	529	6
Future Vol, veh/h	0	9	9	25	10	45	3	568	42	28	529	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	10	27	11	49	3	617	46	30	575	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1315	1308	579	1295	1288	640	582	0	0	663	0	0
Stage 1	639	639	-	646	646	-	-	-	-	-	-	-
Stage 2	676	669	-	649	642	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	135	159	515	139	164	475	992	-	-	926	-	-
Stage 1	464	470	-	460	467	-	-	-	-	-	-	-
Stage 2	443	456	-	458	469	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	112	153	515	126	158	475	992	-	-	926	-	-
Mov Cap-2 Maneuver	112	153	-	126	158	-	-	-	-	-	-	-
Stage 1	463	455	-	459	466	-	-	-	-	-	-	-
Stage 2	387	455	-	425	454	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.6		30.9		0		0.4	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	992	-	-	236	224	926	-
HCM Lane V/C Ratio	0.003	-	-	0.083	0.388	0.033	-
HCM Control Delay (s)	8.6	-	-	21.6	30.9	9	-
HCM Lane LOS	A	-	-	C	D	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	1.7	0.1	-

HCM 6th TWSC
13: 6th St & Indian Hill Blvd

03/25/2024

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	3	6	3	53	10	55	6	617	23	18	512	0
Future Vol, veh/h	3	6	3	53	10	55	6	617	23	18	512	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	7	3	58	11	60	7	671	25	20	557	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1330	1307	557	1300	1295	684	557	0	0	696	0	0
Stage 1	597	597	-	698	698	-	-	-	-	-	-	-
Stage 2	733	710	-	602	597	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	132	160	530	138	162	449	1014	-	-	900	-	-
Stage 1	490	491	-	431	442	-	-	-	-	-	-	-
Stage 2	412	437	-	486	491	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	106	155	530	130	157	449	1014	-	-	900	-	-
Mov Cap-2 Maneuver	106	155	-	130	157	-	-	-	-	-	-	-
Stage 1	487	480	-	428	439	-	-	-	-	-	-	-
Stage 2	346	434	-	466	480	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	28.7		51		0.1		0.3	
HCM LOS	D		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1014	-	-	165	199	900	-
HCM Lane V/C Ratio	0.006	-	-	0.079	0.645	0.022	-
HCM Control Delay (s)	8.6	-	-	28.7	51	9.1	-
HCM Lane LOS	A	-	-	D	F	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	3.8	0.1	-

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	113	4	74	112	18	7	180	75	20	179	9
Future Vol, veh/h	10	113	4	74	112	18	7	180	75	20	179	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	123	4	80	122	20	8	196	82	22	195	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	11.5	11.7	11.2
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	8%	36%	10%
Vol Thru, %	69%	89%	55%	86%
Vol Right, %	29%	3%	9%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	262	127	204	208
LT Vol	7	10	74	20
Through Vol	180	113	112	179
RT Vol	75	4	18	9
Lane Flow Rate	285	138	222	226
Geometry Grp	1	1	1	1
Degree of Util (X)	0.408	0.218	0.343	0.339
Departure Headway (Hd)	5.161	5.693	5.561	5.4
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	695	629	645	665
Service Time	3.203	3.743	3.605	3.444
HCM Lane V/C Ratio	0.41	0.219	0.344	0.34
HCM Control Delay	11.7	10.3	11.5	11.2
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2	0.8	1.5	1.5

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	67	11	81	138	20	32	178	65	16	141	16
Future Vol, veh/h	3	67	11	81	138	20	32	178	65	16	141	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	73	12	88	150	22	35	193	71	17	153	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.5	11.8	11.8	10.4
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	4%	34%	9%
Vol Thru, %	65%	83%	58%	82%
Vol Right, %	24%	14%	8%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	275	81	239	173
LT Vol	32	3	81	16
Through Vol	178	67	138	141
RT Vol	65	11	20	16
Lane Flow Rate	299	88	260	188
Geometry Grp	1	1	1	1
Degree of Util (X)	0.422	0.137	0.388	0.278
Departure Headway (Hd)	5.086	5.595	5.382	5.324
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	708	640	668	675
Service Time	3.116	3.636	3.415	3.359
HCM Lane V/C Ratio	0.422	0.138	0.389	0.279
HCM Control Delay	11.8	9.5	11.8	10.4
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	2.1	0.5	1.8	1.1

Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	193	17	27	201	5	19	0	9	2	5	0
Future Vol, veh/h	3	193	17	27	201	5	19	0	9	2	5	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	210	18	29	218	5	21	0	10	2	5	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	9	8.2	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	68%	1%	12%	29%
Vol Thru, %	0%	91%	86%	71%
Vol Right, %	32%	8%	2%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	213	233	7
LT Vol	19	3	27	2
Through Vol	0	193	201	5
RT Vol	9	17	5	0
Lane Flow Rate	30	232	253	8
Geometry Grp	1	1	1	1
Degree of Util (X)	0.042	0.267	0.294	0.011
Departure Headway (Hd)	4.934	4.146	4.185	5.084
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	730	852	846	708
Service Time	2.935	2.244	2.277	3.086
HCM Lane V/C Ratio	0.041	0.272	0.299	0.011
HCM Control Delay	8.2	8.8	9	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.1	1.2	0

Intersection

Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	164	18	16	254	4	15	0	11	2	4	3
Future Vol, veh/h	6	164	18	16	254	4	15	0	11	2	4	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	178	20	17	276	4	16	0	12	2	4	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	9.5	8.1	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	3%	6%	22%
Vol Thru, %	0%	87%	93%	44%
Vol Right, %	42%	10%	1%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	188	274	9
LT Vol	15	6	16	2
Through Vol	0	164	254	4
RT Vol	11	18	4	3
Lane Flow Rate	28	204	298	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.038	0.243	0.344	0.013
Departure Headway (Hd)	4.892	4.277	4.158	4.902
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	735	844	852	733
Service Time	2.902	2.277	2.244	2.914
HCM Lane V/C Ratio	0.038	0.242	0.35	0.014
HCM Control Delay	8.1	8.6	9.5	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1	1.5	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↕		↖	↗	
Traffic Volume (veh/h)	72	131	31	91	136	87	42	360	105	56	298	87
Future Volume (veh/h)	72	131	31	91	136	87	42	360	105	56	298	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	138	33	96	143	92	44	379	111	59	314	92
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	202	48	230	241	204	473	922	267	442	949	274
Arrive On Green	0.14	0.14	0.14	0.13	0.13	0.13	0.04	0.34	0.34	0.05	0.35	0.35
Sat Flow, veh/h	1781	1459	349	1781	1870	1585	1781	2719	787	1781	2722	784
Grp Volume(v), veh/h	76	0	171	96	143	92	44	246	244	59	203	203
Grp Sat Flow(s),veh/h/ln	1781	0	1808	1781	1870	1585	1781	1777	1729	1781	1777	1729
Q Serve(g_s), s	2.0	0.0	4.8	2.6	3.8	2.8	0.8	5.6	5.8	1.1	4.5	4.6
Cycle Q Clear(g_c), s	2.0	0.0	4.8	2.6	3.8	2.8	0.8	5.6	5.8	1.1	4.5	4.6
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.46	1.00		0.45
Lane Grp Cap(c), veh/h	246	0	250	230	241	204	473	602	586	442	620	603
V/C Ratio(X)	0.31	0.00	0.68	0.42	0.59	0.45	0.09	0.41	0.42	0.13	0.33	0.34
Avail Cap(c_a), veh/h	604	0	613	604	634	537	560	602	586	512	620	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	21.8	21.3	21.8	21.4	10.5	13.5	13.5	10.4	12.7	12.8
Incr Delay (d2), s/veh	0.7	0.0	3.3	1.2	2.3	1.5	0.1	2.0	2.2	0.1	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	2.0	1.1	1.7	1.1	0.3	2.2	2.2	0.4	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	0.0	25.1	22.5	24.1	22.9	10.6	15.5	15.7	10.6	14.1	14.3
LnGrp LOS	C	A	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		247			331			534			465	
Approach Delay, s/veh		23.9			23.3			15.2			13.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	22.5		11.8	6.9	23.0		11.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	3.1	7.8		6.8	2.8	6.6		5.8				
Green Ext Time (p_c), s	0.0	2.0		0.8	0.0	1.7		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				17.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↖	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	66	132	40	86	134	43	34	287	89	98	385	93
Future Volume (veh/h)	66	132	40	86	134	43	34	287	89	98	385	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	69	139	42	91	141	45	36	302	94	103	405	98
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	198	60	219	230	195	432	886	271	502	1036	248
Arrive On Green	0.14	0.14	0.14	0.12	0.12	0.12	0.04	0.33	0.33	0.07	0.36	0.36
Sat Flow, veh/h	1781	1379	417	1781	1870	1585	1781	2681	819	1781	2843	681
Grp Volume(v), veh/h	69	0	181	91	141	45	36	198	198	103	252	251
Grp Sat Flow(s),veh/h/ln	1781	0	1795	1781	1870	1585	1781	1777	1723	1781	1777	1748
Q Serve(g_s), s	1.9	0.0	5.2	2.6	3.9	1.4	0.7	4.6	4.7	2.0	5.7	5.8
Cycle Q Clear(g_c), s	1.9	0.0	5.2	2.6	3.9	1.4	0.7	4.6	4.7	2.0	5.7	5.8
Prop In Lane	1.00		0.23	1.00		1.00	1.00		0.48	1.00		0.39
Lane Grp Cap(c), veh/h	256	0	258	219	230	195	432	587	570	502	648	637
V/C Ratio(X)	0.27	0.00	0.70	0.42	0.61	0.23	0.08	0.34	0.35	0.21	0.39	0.39
Avail Cap(c_a), veh/h	589	0	594	589	618	524	527	587	570	537	648	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	0.0	22.2	22.1	22.7	21.6	11.2	13.7	13.8	10.5	12.8	12.8
Incr Delay (d2), s/veh	0.6	0.0	3.5	1.3	2.7	0.6	0.1	1.6	1.7	0.2	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.1	1.1	1.8	0.5	0.2	1.8	1.8	0.6	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	0.0	25.7	23.3	25.3	22.2	11.3	15.3	15.5	10.7	14.6	14.7
LnGrp LOS	C	A	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		250			277			432			606	
Approach Delay, s/veh		24.5			24.1			15.0			14.0	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	22.5		12.3	6.6	24.3		11.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	4.0	6.7		7.2	2.7	7.8		5.9				
Green Ext Time (p_c), s	0.0	1.6		0.8	0.0	2.0		0.9				
Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↖	↗↘	↖↗		↗	↗↘	
Traffic Volume (veh/h)	90	161	38	48	164	46	60	385	31	29	523	62
Future Volume (veh/h)	90	161	38	48	164	46	60	385	31	29	523	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	169	40	51	173	48	63	405	33	31	551	65
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	131	472	109	91	265	225	202	1862	150	62	1683	196
Arrive On Green	0.07	0.16	0.16	0.05	0.14	0.14	0.06	0.39	0.39	0.04	0.36	0.36
Sat Flow, veh/h	1781	2866	662	1781	1870	1585	3456	4817	387	1781	4637	540
Grp Volume(v), veh/h	95	103	106	51	173	48	63	285	153	31	403	213
Grp Sat Flow(s),veh/h/ln	1781	1777	1751	1781	1870	1585	1728	1702	1801	1781	1702	1773
Q Serve(g_s), s	2.6	2.6	2.7	1.4	4.3	1.3	0.9	2.8	2.8	0.8	4.2	4.3
Cycle Q Clear(g_c), s	2.6	2.6	2.7	1.4	4.3	1.3	0.9	2.8	2.8	0.8	4.2	4.3
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.22	1.00		0.30
Lane Grp Cap(c), veh/h	131	292	288	91	265	225	202	1316	696	62	1236	644
V/C Ratio(X)	0.72	0.35	0.37	0.56	0.65	0.21	0.31	0.22	0.22	0.50	0.33	0.33
Avail Cap(c_a), veh/h	180	645	636	180	679	575	348	1316	696	180	1236	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	18.4	18.4	23.0	20.1	18.8	22.4	10.2	10.2	23.5	11.4	11.4
Incr Delay (d2), s/veh	8.8	0.7	0.8	5.4	2.7	0.5	0.9	0.4	0.7	6.0	0.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.9	1.0	0.6	1.8	0.4	0.3	0.8	1.0	0.4	1.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	19.1	19.2	28.4	22.8	19.3	23.3	10.6	10.9	29.5	12.1	12.8
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		304			272			501			647	
Approach Delay, s/veh		22.9			23.2			12.3			13.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	23.7	7.0	12.7	7.4	22.5	8.1	11.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.8	4.8	3.4	4.7	2.9	6.3	4.6	6.3				
Green Ext Time (p_c), s	0.0	2.0	0.0	0.8	0.0	2.8	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

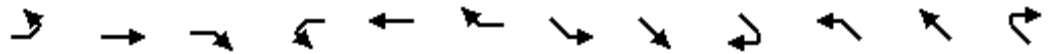
03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↖↗↘		↗	↗↘	
Traffic Volume (veh/h)	59	202	70	53	151	37	41	341	36	26	560	47
Future Volume (veh/h)	59	202	70	53	151	37	41	341	36	26	560	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	213	74	56	159	39	43	359	38	27	589	49
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	375	127	98	262	222	157	1841	191	56	1816	150
Arrive On Green	0.06	0.14	0.14	0.05	0.14	0.14	0.05	0.39	0.39	0.03	0.38	0.38
Sat Flow, veh/h	1781	2609	880	1781	1870	1585	3456	4698	488	1781	4807	396
Grp Volume(v), veh/h	62	143	144	56	159	39	43	258	139	27	416	222
Grp Sat Flow(s),veh/h/ln	1781	1777	1712	1781	1870	1585	1728	1702	1782	1781	1702	1799
Q Serve(g_s), s	1.6	3.6	3.7	1.5	3.8	1.0	0.6	2.4	2.4	0.7	4.1	4.2
Cycle Q Clear(g_c), s	1.6	3.6	3.7	1.5	3.8	1.0	0.6	2.4	2.4	0.7	4.1	4.2
Prop In Lane	1.00		0.51	1.00		1.00	1.00		0.27	1.00		0.22
Lane Grp Cap(c), veh/h	105	256	246	98	262	222	157	1334	698	56	1286	680
V/C Ratio(X)	0.59	0.56	0.58	0.57	0.61	0.18	0.27	0.19	0.20	0.48	0.32	0.33
Avail Cap(c_a), veh/h	187	671	647	187	707	599	363	1334	698	187	1286	680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	19.0	19.1	22.0	19.3	18.1	22.0	9.5	9.6	22.7	10.5	10.5
Incr Delay (d2), s/veh	5.3	1.9	2.2	5.2	2.3	0.4	0.9	0.3	0.6	6.2	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.3	1.4	0.7	1.5	0.3	0.2	0.7	0.8	0.4	1.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	20.9	21.3	27.1	21.5	18.4	22.9	9.9	10.2	28.9	11.2	11.8
LnGrp LOS	C	C	C	C	C	B	C	A	B	C	B	B
Approach Vol, veh/h		349			254			440			665	
Approach Delay, s/veh		22.2			22.3			11.2			12.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	23.2	7.1	11.4	6.7	22.5	7.3	11.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.7	4.4	3.5	5.7	2.6	6.2	3.6	5.8				
Green Ext Time (p_c), s	0.0	1.8	0.0	1.1	0.0	2.9	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			15.4									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

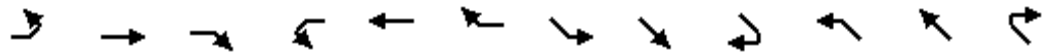
03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	38	24	46	37	24	37	18	533	16	21	532	20
Future Volume (veh/h)	38	24	46	37	24	37	18	533	16	21	532	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	26	50	40	26	40	20	579	17	23	578	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	40	476	96	41	476	42	839	711	47	808	31
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.02	0.45	0.45	0.03	0.45	0.45
Sat Flow, veh/h	0	132	1585	0	135	1585	1781	1870	1585	1781	1790	68
Grp Volume(v), veh/h	67	0	50	66	0	40	20	579	17	23	0	600
Grp Sat Flow(s),veh/h/ln	132	0	1585	135	0	1585	1781	1870	1585	1781	0	1858
Q Serve(g_s), s	0.0	0.0	1.4	0.0	0.0	1.1	0.7	14.8	0.4	0.8	0.0	15.7
Cycle Q Clear(g_c), s	18.0	0.0	1.4	18.0	0.0	1.1	0.7	14.8	0.4	0.8	0.0	15.7
Prop In Lane	0.61		1.00	0.61		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	136	0	476	137	0	476	42	839	711	47	0	839
V/C Ratio(X)	0.49	0.00	0.11	0.48	0.00	0.08	0.48	0.69	0.02	0.49	0.00	0.72
Avail Cap(c_a), veh/h	136	0	476	137	0	476	148	839	711	148	0	839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	15.2	19.3	0.0	15.1	28.9	13.2	9.2	28.8	0.0	13.3
Incr Delay (d2), s/veh	2.7	0.0	0.1	2.6	0.0	0.1	8.1	4.6	0.1	7.6	0.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.5	0.7	0.0	0.4	0.4	6.5	0.1	0.4	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	0.0	15.3	22.0	0.0	15.2	37.0	17.8	9.3	36.4	0.0	18.5
LnGrp LOS	C	A	B	C	A	B	D	B	A	D	A	B
Approach Vol, veh/h		117			106			616				623
Approach Delay, s/veh		19.4			19.4			18.2				19.2
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	31.6		22.5	6.1	31.4		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.7	17.7		20.0	2.8	16.8		20.0				
Green Ext Time (p_c), s	0.0	2.0		0.0	0.0	2.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			18.8									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	17	15	38	25	24	28	14	446	38	21	561	17
Future Volume (veh/h)	17	15	38	25	24	28	14	446	38	21	561	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	16	41	27	26	30	15	485	41	23	610	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	71	181	112	75	181	33	1186	1005	47	1161	34
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.02	0.63	0.63	0.03	0.64	0.64
Sat Flow, veh/h	190	617	1585	186	658	1585	1781	1870	1585	1781	1807	53
Grp Volume(v), veh/h	34	0	41	53	0	30	15	485	41	23	0	628
Grp Sat Flow(s),veh/h/ln	806	0	1585	844	0	1585	1781	1870	1585	1781	0	1861
Q Serve(g_s), s	0.1	0.0	1.4	0.1	0.0	1.0	0.5	7.7	0.6	0.8	0.0	10.9
Cycle Q Clear(g_c), s	5.4	0.0	1.4	5.4	0.0	1.0	0.5	7.7	0.6	0.8	0.0	10.9
Prop In Lane	0.53		1.00	0.51		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	184	0	181	187	0	181	33	1186	1005	47	0	1195
V/C Ratio(X)	0.18	0.00	0.23	0.28	0.00	0.17	0.46	0.41	0.04	0.49	0.00	0.53
Avail Cap(c_a), veh/h	472	0	476	477	0	476	148	1186	1005	148	0	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.1	0.0	24.2	24.3	0.0	24.0	29.1	5.4	4.1	28.8	0.0	5.8
Incr Delay (d2), s/veh	0.5	0.0	0.6	0.8	0.0	0.4	9.6	1.0	0.1	7.6	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5	0.7	0.0	0.4	0.3	2.6	0.2	0.4	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	0.0	24.8	25.1	0.0	24.4	38.7	6.5	4.2	36.4	0.0	7.5
LnGrp LOS	C	A	C	C	A	C	D	A	A	D	A	A
Approach Vol, veh/h		75			83			541			651	
Approach Delay, s/veh		24.7			24.9			7.2			8.5	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	42.9		11.4	6.1	42.5		11.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.5	12.9		7.4	2.8	9.7		7.4				
Green Ext Time (p_c), s	0.0	3.3		0.1	0.0	2.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	59	85	131	52	105	116	487	178	37	471	89
Future Volume (veh/h)	33	59	85	131	52	105	116	487	178	37	471	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	64	92	142	57	114	126	529	193	40	512	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	350	297	315	104	209	469	1023	867	462	786	149
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.07	0.55	0.55	0.04	0.51	0.51
Sat Flow, veh/h	1214	1870	1585	1231	557	1113	1781	1870	1585	1781	1529	290
Grp Volume(v), veh/h	36	64	92	142	0	171	126	529	193	40	0	609
Grp Sat Flow(s),veh/h/ln	1214	1870	1585	1231	0	1670	1781	1870	1585	1781	0	1818
Q Serve(g_s), s	1.7	1.7	3.0	6.6	0.0	5.6	1.9	10.7	3.8	0.6	0.0	14.7
Cycle Q Clear(g_c), s	7.2	1.7	3.0	8.3	0.0	5.6	1.9	10.7	3.8	0.6	0.0	14.7
Prop In Lane	1.00		1.00	1.00		0.67	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	235	350	297	315	0	313	469	1023	867	462	0	935
V/C Ratio(X)	0.15	0.18	0.31	0.45	0.00	0.55	0.27	0.52	0.22	0.09	0.00	0.65
Avail Cap(c_a), veh/h	372	561	476	454	0	501	491	1023	867	538	0	935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.77	0.77	0.77	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	20.5	21.0	24.0	0.0	22.1	7.6	8.6	7.0	6.8	0.0	10.6
Incr Delay (d2), s/veh	0.3	0.2	0.6	1.0	0.0	1.5	0.2	1.4	0.5	0.1	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.7	1.1	1.9	0.0	2.2	0.6	3.8	1.1	0.2	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	20.8	21.6	25.0	0.0	23.6	7.8	10.0	7.5	6.8	0.0	14.1
LnGrp LOS	C	C	C	C	A	C	A	B	A	A	A	B
Approach Vol, veh/h		192			313			848				649
Approach Delay, s/veh		22.1			24.2			9.1				13.7
Approach LOS		C			C			A				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	37.3		15.7	8.9	35.4		15.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	2.6	12.7		9.2	3.9	16.7		10.3				
Green Ext Time (p_c), s	0.0	3.1		0.4	0.0	2.4		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				14.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	44	120	111	95	69	147	475	127	34	404	66
Future Volume (veh/h)	52	44	120	111	95	69	147	475	127	34	404	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	48	130	121	103	75	160	516	138	37	439	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	225	337	286	312	181	132	551	1040	882	490	810	133
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.08	0.56	0.56	0.04	0.52	0.52
Sat Flow, veh/h	1206	1870	1585	1206	1006	733	1781	1870	1585	1781	1567	257
Grp Volume(v), veh/h	57	48	130	121	0	178	160	516	138	37	0	511
Grp Sat Flow(s),veh/h/ln	1206	1870	1585	1206	0	1739	1781	1870	1585	1781	0	1824
Q Serve(g_s), s	2.7	1.3	4.4	5.6	0.0	5.6	2.4	10.1	2.5	0.6	0.0	11.3
Cycle Q Clear(g_c), s	8.3	1.3	4.4	6.9	0.0	5.6	2.4	10.1	2.5	0.6	0.0	11.3
Prop In Lane	1.00		1.00	1.00		0.42	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	225	337	286	312	0	314	551	1040	882	490	0	943
V/C Ratio(X)	0.25	0.14	0.45	0.39	0.00	0.57	0.29	0.50	0.16	0.08	0.00	0.54
Avail Cap(c_a), veh/h	369	561	476	456	0	522	576	1040	882	570	0	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.86	0.86	0.86	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	20.7	22.0	23.6	0.0	22.5	6.7	8.2	6.5	6.6	0.0	9.7
Incr Delay (d2), s/veh	0.6	0.2	1.1	0.8	0.0	1.6	0.2	1.5	0.3	0.1	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.5	1.6	1.6	0.0	2.3	0.7	3.6	0.8	0.2	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	20.9	23.1	24.4	0.0	24.1	7.0	9.6	6.8	6.7	0.0	12.0
LnGrp LOS	C	C	C	C	A	C	A	A	A	A	A	B
Approach Vol, veh/h		235			299			814				548
Approach Delay, s/veh		23.5			24.2			8.6				11.6
Approach LOS		C			C			A				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	37.9		15.3	9.2	35.5		15.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.5	23.0		18.0				
Max Q Clear Time (g_c+I1), s	2.6	12.1		10.3	4.4	13.3		8.9				
Green Ext Time (p_c), s	0.0	3.0		0.5	0.0	2.4		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				13.8								
HCM 6th LOS				B								

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑	↖	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	33	92	55	14	87	42	60	140	33	30	146	28
Future Vol, veh/h	33	92	55	14	87	42	60	140	33	30	146	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	100	60	15	95	46	65	152	36	33	159	30
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	9.8	9.8	12.6	11.9
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	26%	100%	0%	0%	100%	0%	0%	15%
Vol Thru, %	60%	0%	100%	0%	0%	100%	0%	72%
Vol Right, %	14%	0%	0%	100%	0%	0%	100%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	233	33	92	55	14	87	42	204
LT Vol	60	33	0	0	14	0	0	30
Through Vol	140	0	92	0	0	87	0	146
RT Vol	33	0	0	55	0	0	42	28
Lane Flow Rate	253	36	100	60	15	95	46	222
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.412	0.067	0.173	0.092	0.029	0.165	0.071	0.36
Departure Headway (Hd)	5.851	6.743	6.232	5.517	6.809	6.298	5.583	5.846
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	615	531	575	649	526	569	640	616
Service Time	3.584	4.486	3.975	3.259	4.553	4.042	3.326	3.581
HCM Lane V/C Ratio	0.411	0.068	0.174	0.092	0.029	0.167	0.072	0.36
HCM Control Delay	12.6	10	10.3	8.8	9.8	10.3	8.8	11.9
HCM Lane LOS	B	A	B	A	A	B	A	B
HCM 95th-tile Q	2	0.2	0.6	0.3	0.1	0.6	0.2	1.6

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	45	91	65	27	152	56	49	151	23	44	161	41
Future Vol, veh/h	45	91	65	27	152	56	49	151	23	44	161	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	99	71	29	165	61	53	164	25	48	175	45
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10.4	11.3	13.9	14.4
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	22%	100%	0%	0%	100%	0%	0%	18%
Vol Thru, %	68%	0%	100%	0%	0%	100%	0%	65%
Vol Right, %	10%	0%	0%	100%	0%	0%	100%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	45	91	65	27	152	56	246
LT Vol	49	45	0	0	27	0	0	44
Through Vol	151	0	91	0	0	152	0	161
RT Vol	23	0	0	65	0	0	56	41
Lane Flow Rate	242	49	99	71	29	165	61	267
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.429	0.097	0.182	0.116	0.058	0.302	0.099	0.465
Departure Headway (Hd)	6.367	7.156	6.642	5.924	7.085	6.572	5.854	6.263
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	562	498	537	601	503	544	608	572
Service Time	4.134	4.937	4.423	3.703	4.86	4.347	3.628	4.028
HCM Lane V/C Ratio	0.431	0.098	0.184	0.118	0.058	0.303	0.1	0.467
HCM Control Delay	13.9	10.7	10.9	9.5	10.3	12.2	9.3	14.4
HCM Lane LOS	B	B	B	A	B	B	A	B
HCM 95th-tile Q	2.1	0.3	0.7	0.4	0.2	1.3	0.3	2.4

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	43	425	78	223	508	57	101	44	217	83	76	67
Future Volume (veh/h)	43	425	78	223	508	57	101	44	217	83	76	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	462	85	242	552	62	110	48	236	90	83	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	678	302	290	1096	489	602	749	668	471	793	630
Arrive On Green	0.05	0.19	0.19	0.16	0.31	0.31	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1231	1777	1585	1095	1882	1496
Grp Volume(v), veh/h	47	462	85	242	552	62	110	48	236	90	78	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1231	1777	1585	1095	1777	1601
Q Serve(g_s), s	1.6	7.3	2.8	7.9	7.6	1.7	3.6	1.0	6.1	3.7	1.6	1.8
Cycle Q Clear(g_c), s	1.6	7.3	2.8	7.9	7.6	1.7	5.4	1.0	6.1	9.7	1.6	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	81	678	302	290	1096	489	602	749	668	471	749	675
V/C Ratio(X)	0.58	0.68	0.28	0.83	0.50	0.13	0.18	0.06	0.35	0.19	0.10	0.12
Avail Cap(c_a), veh/h	172	1066	476	312	1344	600	602	749	668	471	749	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	22.6	20.8	24.3	17.0	14.9	12.2	10.3	11.8	15.1	10.5	10.6
Incr Delay (d2), s/veh	6.5	1.2	0.5	15.5	0.3	0.1	0.6	0.2	1.3	0.9	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.9	1.0	4.3	2.9	0.6	1.0	0.4	2.1	0.9	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	23.8	21.3	39.8	17.3	15.0	12.8	10.5	13.2	16.0	10.8	10.9
LnGrp LOS	C	C	C	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		594			856			394			246	
Approach Delay, s/veh		24.3			23.5			12.7			12.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.8	14.3	16.0		29.8	7.2	23.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	10.5	18.0		18.0	5.8	22.7				
Max Q Clear Time (g_c+I1), s		8.1	9.9	9.3		11.7	3.6	9.6				
Green Ext Time (p_c), s		1.5	0.0	2.2		0.6	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				20.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	36	444	82	226	473	62	102	54	171	59	61	57
Future Volume (veh/h)	36	444	82	226	473	62	102	54	171	59	61	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	483	89	246	514	67	111	59	186	64	66	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	1510	673	436	1510	673	619	731	652	509	755	632
Arrive On Green	0.42	0.42	0.42	0.42	0.42	0.42	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	887	3554	1585	912	3554	1585	1262	1777	1585	1135	1834	1537
Grp Volume(v), veh/h	39	483	89	246	514	67	111	59	186	64	64	64
Grp Sat Flow(s),veh/h/ln	887	1777	1585	912	1777	1585	1262	1777	1585	1135	1777	1594
Q Serve(g_s), s	1.7	5.0	1.9	13.5	5.3	1.4	3.3	1.1	4.3	2.2	1.2	1.4
Cycle Q Clear(g_c), s	7.1	5.0	1.9	18.5	5.3	1.4	4.6	1.1	4.3	6.5	1.2	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.96
Lane Grp Cap(c), veh/h	421	1510	673	436	1510	673	619	731	652	509	731	656
V/C Ratio(X)	0.09	0.32	0.13	0.56	0.34	0.10	0.18	0.08	0.29	0.13	0.09	0.10
Avail Cap(c_a), veh/h	488	1777	793	505	1777	793	619	731	652	509	731	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	10.5	9.6	16.7	10.6	9.5	11.3	9.8	10.8	13.0	9.9	9.9
Incr Delay (d2), s/veh	0.1	0.1	0.1	1.1	0.1	0.1	0.6	0.2	1.0	0.5	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.7	0.6	2.6	1.8	0.4	0.9	0.4	1.5	0.6	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.1	10.7	9.7	17.8	10.8	9.6	11.9	10.1	11.8	13.5	10.1	10.2
LnGrp LOS	B	B	A	B	B	A	B	B	B	B	B	B
Approach Vol, veh/h		611			827			356			192	
Approach Delay, s/veh		10.7			12.7			11.6			11.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.1		27.9		27.1		27.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		27.5		18.5		27.5				
Max Q Clear Time (g_c+I1), s		6.6		9.1		8.5		20.5				
Green Ext Time (p_c), s		1.4		3.6		0.6		2.9				
Intersection Summary												
HCM 6th Ctrl Delay				11.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	75	532	102	87	511	96	111	93	73	108	85	143
Future Volume (veh/h)	75	532	102	87	511	96	111	93	73	108	85	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	578	111	95	555	104	121	101	79	117	92	155
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	827	369	124	844	376	684	846	717	675	846	717
Arrive On Green	0.06	0.23	0.23	0.07	0.24	0.24	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1304	1870	1585	1294	1870	1585
Grp Volume(v), veh/h	82	578	111	95	555	104	121	101	79	117	92	155
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1304	1870	1585	1294	1870	1585
Q Serve(g_s), s	2.5	8.2	3.2	2.9	7.8	2.9	3.2	1.7	1.6	3.2	1.6	3.3
Cycle Q Clear(g_c), s	2.5	8.2	3.2	2.9	7.8	2.9	4.8	1.7	1.6	4.9	1.6	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	827	369	124	844	376	684	846	717	675	846	717
V/C Ratio(X)	0.71	0.70	0.30	0.77	0.66	0.28	0.18	0.12	0.11	0.17	0.11	0.22
Avail Cap(c_a), veh/h	162	1163	519	178	1195	533	684	846	717	675	846	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.84	0.84	0.84	0.49	0.49	0.49	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	19.3	17.4	25.1	18.9	17.1	10.1	8.7	8.7	10.1	8.7	9.1
Incr Delay (d2), s/veh	6.9	0.9	0.4	9.8	0.7	0.3	0.3	0.1	0.2	0.6	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.1	1.1	1.5	3.0	1.0	0.8	0.6	0.5	0.9	0.6	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	20.3	17.8	34.9	19.7	17.4	10.3	8.9	8.8	10.7	8.9	9.8
LnGrp LOS	C	C	B	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		771			754			301			364	
Approach Delay, s/veh		21.2			21.3			9.5			9.9	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.4	8.3	17.3		29.4	8.1	17.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.5	18.0		18.0	5.0	18.5				
Max Q Clear Time (g_c+I1), s		6.8	4.9	10.2		6.9	4.5	9.8				
Green Ext Time (p_c), s		0.9	0.0	2.6		1.1	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay				17.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	65	552	64	84	432	79	148	87	71	99	119	134
Future Volume (veh/h)	65	552	64	84	432	79	148	87	71	99	119	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	600	70	91	470	86	161	95	77	108	129	146
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	843	376	122	872	389	646	840	712	677	840	712
Arrive On Green	0.06	0.24	0.24	0.07	0.25	0.25	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1261	1870	1585	1301	1870	1585
Grp Volume(v), veh/h	71	600	70	91	470	86	161	95	77	108	129	146
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1261	1870	1585	1301	1870	1585
Q Serve(g_s), s	2.1	8.5	1.9	2.8	6.3	2.4	4.8	1.6	1.5	2.9	2.2	3.1
Cycle Q Clear(g_c), s	2.1	8.5	1.9	2.8	6.3	2.4	7.0	1.6	1.5	4.5	2.2	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	843	376	122	872	389	646	840	712	677	840	712
V/C Ratio(X)	0.66	0.71	0.19	0.75	0.54	0.22	0.25	0.11	0.11	0.16	0.15	0.21
Avail Cap(c_a), veh/h	162	1163	519	178	1195	533	646	840	712	677	840	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.86	0.86	0.86	0.68	0.68	0.68	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	19.2	16.7	25.2	18.0	16.6	11.0	8.8	8.8	10.1	9.0	9.2
Incr Delay (d2), s/veh	6.5	1.2	0.2	8.2	0.4	0.2	0.6	0.2	0.2	0.5	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.3	0.7	1.4	2.4	0.8	1.2	0.6	0.5	0.8	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	20.4	17.0	33.4	18.5	16.8	11.7	9.0	9.0	10.6	9.4	9.8
LnGrp LOS	C	C	B	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		741			647			333			383	
Approach Delay, s/veh		21.2			20.4			10.3			9.9	
Approach LOS		C			C			B			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.2	8.3	17.6		29.2	7.8	18.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.5	18.0		18.0	5.0	18.5				
Max Q Clear Time (g_c+I1), s		9.0	4.8	10.5		6.5	4.1	8.3				
Green Ext Time (p_c), s		0.9	0.0	2.5		1.2	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				17.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

3: Monte Vista Ave/Padua Ave & Baseline Rd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘↘	↗↗	↘	↘	↗	↘	↘	↗↗	↘
Traffic Volume (veh/h)	35	547	154	516	524	137	137	113	479	149	106	52
Future Volume (veh/h)	35	547	154	516	524	137	137	113	479	149	106	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	595	167	561	570	149	149	123	521	162	115	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	758	338	518	1159	517	558	576	488	434	723	339
Arrive On Green	0.04	0.21	0.21	0.15	0.33	0.33	0.07	0.31	0.31	0.07	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2348	1101
Grp Volume(v), veh/h	38	595	167	561	570	149	149	123	521	162	85	87
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1672
Q Serve(g_s), s	1.5	11.1	6.5	10.5	9.0	4.9	4.0	3.4	21.6	4.3	2.4	2.6
Cycle Q Clear(g_c), s	1.5	11.1	6.5	10.5	9.0	4.9	4.0	3.4	21.6	4.3	2.4	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	66	758	338	518	1159	517	558	576	488	434	547	515
V/C Ratio(X)	0.57	0.78	0.49	1.08	0.49	0.29	0.27	0.21	1.07	0.37	0.16	0.17
Avail Cap(c_a), veh/h	145	914	408	518	1159	517	558	576	488	434	547	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	26.0	24.2	29.8	18.9	17.5	14.8	17.9	24.2	14.9	17.6	17.7
Incr Delay (d2), s/veh	6.6	3.3	1.0	63.6	0.3	0.3	0.2	0.8	58.3	0.5	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.5	2.3	8.5	3.3	1.6	1.4	1.5	14.9	1.6	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	29.3	25.2	93.4	19.3	17.9	15.0	18.7	82.6	15.5	18.2	18.4
LnGrp LOS	D	C	C	F	B	B	B	B	F	B	B	B
Approach Vol, veh/h		800			1280			793			334	
Approach Delay, s/veh		28.9			51.6			60.0			16.9	
Approach LOS		C			D			E			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	26.1	15.0	19.4	9.5	26.1	7.1	27.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.5	10.5	18.0	5.0	18.5	5.7	22.8				
Max Q Clear Time (g_c+I1), s	6.3	23.6	12.5	13.1	6.0	4.6	3.5	11.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	0.7	0.0	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			44.4									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	607	123	400	510	122	102	124	525	138	81	27
Future Volume (veh/h)	33	607	123	400	510	122	102	124	525	138	81	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	660	134	435	554	133	111	135	571	150	88	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	807	360	489	1182	527	581	566	480	415	827	261
Arrive On Green	0.04	0.23	0.23	0.14	0.33	0.33	0.06	0.30	0.30	0.07	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2657	839
Grp Volume(v), veh/h	36	660	134	435	554	133	111	135	571	150	58	59
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1719
Q Serve(g_s), s	1.4	12.3	5.0	8.7	8.6	4.3	2.9	3.8	21.2	4.0	1.6	1.7
Cycle Q Clear(g_c), s	1.4	12.3	5.0	8.7	8.6	4.3	2.9	3.8	21.2	4.0	1.6	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	64	807	360	489	1182	527	581	566	480	415	553	535
V/C Ratio(X)	0.56	0.82	0.37	0.89	0.47	0.25	0.19	0.24	1.19	0.36	0.10	0.11
Avail Cap(c_a), veh/h	145	914	408	489	1182	527	598	566	480	415	553	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	25.7	22.8	29.5	18.5	17.0	15.0	18.3	24.4	15.1	17.2	17.2
Incr Delay (d2), s/veh	6.4	4.5	0.5	18.1	0.3	0.2	0.1	0.9	103.5	0.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.2	1.7	4.5	3.1	1.4	1.1	1.6	20.7	1.5	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	30.2	23.4	47.6	18.8	17.3	15.2	19.3	127.9	15.6	17.5	17.6
LnGrp LOS	D	C	C	D	B	B	B	B	F	B	B	B
Approach Vol, veh/h		830			1122			817			267	
Approach Delay, s/veh		29.5			29.8			94.6			16.5	
Approach LOS		C			C			F			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	25.7	14.4	20.4	8.9	26.3	7.0	27.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.1	9.9	18.0	5.1	19.0	5.7	22.2				
Max Q Clear Time (g_c+I1), s	6.0	23.2	10.7	14.3	4.9	3.7	3.4	10.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	0.4	0.0	3.0				
Intersection Summary												
HCM 6th Ctrl Delay			46.0									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/03/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘		↗↗	↘		↗
Traffic Volume (veh/h)	128	600	454	63	504	337	186	0	580	90	0	479
Future Volume (veh/h)	128	600	454	63	504	337	186	0	580	90	0	479
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	139	652	493	68	548	366	202	0	630	98	0	521
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	173	1019	455	90	853	380	860	0	0	860	0	0
Arrive On Green	0.10	0.29	0.29	0.05	0.24	0.24	0.48	0.00	0.00	0.48	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	202		1781	98	
Grp Volume(v), veh/h	139	652	493	68	548	366	202	11.5		98	10.7	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	5.7	12.0	21.5	2.8	10.4	17.1	5.0			2.3		
Cycle Q Clear(g_c), s	5.7	12.0	21.5	2.8	10.4	17.1	5.0			2.3		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	173	1019	455	90	853	380	860			860		
V/C Ratio(X)	0.80	0.64	1.08	0.76	0.64	0.96	0.23			0.11		
Avail Cap(c_a), veh/h	178	1019	455	143	853	380	860			860		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	33.1	23.4	26.7	35.2	25.6	28.2	11.3			10.6		
Incr Delay (d2), s/veh	22.0	1.4	66.8	12.1	1.7	36.2	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	3.4	4.7	15.6	1.4	4.2	9.7	1.7			0.8		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.2	24.7	93.6	47.2	27.3	64.4	11.5			10.7		
LnGrp LOS	E	C	F	D	C	E	B			B		
Approach Vol, veh/h		1284			982							
Approach Delay, s/veh		54.4			42.5							
Approach LOS		D			D							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	40.7		8.3	26.0	40.7		11.8	22.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	9.5		6.0	19.5	10.5		7.5	18.0				
Max Q Clear Time (g_c+I1), s	4.3		4.8	23.5	7.0		7.7	19.1				
Green Ext Time (p_c), s	0.1		0.0	0.0	0.2		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			44.8									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp






















04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	601	475	48	437	347	130	0	696	76	0	464
Future Volume (veh/h)	189	601	475	48	437	347	130	0	696	76	0	464
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	205	653	516	52	475	377	141	0	757	83	0	504
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	245	1185	529	79	853	380	788	0	0	788	0	0
Arrive On Green	0.14	0.33	0.33	0.04	0.24	0.24	0.44	0.00	0.00	0.44	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	141		1781	83	
Grp Volume(v), veh/h	205	653	516	52	475	377	141	12.8		83	12.3	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	8.4	11.3	24.1	2.2	8.8	17.8	3.6			2.0		
Cycle Q Clear(g_c), s	8.4	11.3	24.1	2.2	8.8	17.8	3.6			2.0		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	245	1185	529	79	853	380	788			788		
V/C Ratio(X)	0.84	0.55	0.98	0.66	0.56	0.99	0.18			0.11		
Avail Cap(c_a), veh/h	273	1185	529	121	853	380	788			788		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	31.5	20.4	24.7	35.3	25.0	28.4	12.7			12.2		
Incr Delay (d2), s/veh	18.3	0.5	32.9	9.1	0.8	43.6	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.6	4.2	12.7	1.1	3.5	10.7	1.3			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.8	21.0	57.6	44.4	25.8	72.1	12.8			12.3		
LnGrp LOS	D	C	E	D	C	E	B			B		
Approach Vol, veh/h		1374			904							
Approach Delay, s/veh		39.0			46.2							
Approach LOS		D			D							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	37.7		7.8	29.5	37.7		14.8	22.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	6.2		5.1	24.4	8.5		11.5	18.0				
Max Q Clear Time (g_c+I1), s	4.0		4.2	26.1	5.6		10.4	19.8				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			39.2									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	234	0	18	1	0	0	19	468	1	1	499	216
Future Volume (vph)	234	0	18	1	0	0	19	468	1	1	499	216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1612	1504		1770		1770	3538		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.46	1.00	1.00
Satd. Flow (perm)	1681	1612	1504		1863		1770	3538		865	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	254	0	20	1	0	0	21	509	1	1	542	235
RTOR Reduction (vph)	0	111	15	0	0	0	0	0	0	0	0	98
Lane Group Flow (vph)	127	18	3	0	1	0	21	510	0	1	542	137
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	11.3	11.3	11.3		1.2		3.0	54.0		46.5	46.5	46.5
Effective Green, g (s)	11.3	11.3	11.3		1.2		3.0	54.0		46.5	46.5	46.5
Actuated g/C Ratio	0.14	0.14	0.14		0.01		0.04	0.68		0.58	0.58	0.58
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	237	227	212		27		66	2388		502	2057	920
v/s Ratio Prot	c0.08	0.01					0.01	c0.14			c0.15	
v/s Ratio Perm			0.00		c0.00					0.00		0.09
v/c Ratio	0.54	0.08	0.01		0.04		0.32	0.21		0.00	0.26	0.15
Uniform Delay, d1	31.9	29.8	29.5		38.8		37.5	4.9		7.0	8.3	7.7
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.3	0.2	0.0		0.6		2.8	0.2		0.0	0.3	0.3
Delay (s)	34.2	30.0	29.6		39.4		40.3	5.1		7.0	8.6	8.0
Level of Service	C	C	C		D		D	A		A	A	A
Approach Delay (s)		31.9			39.4			6.5			8.4	
Approach LOS		C			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.9									B
HCM 2000 Volume to Capacity ratio			0.31									
Actuated Cycle Length (s)			80.0							18.0		
Intersection Capacity Utilization			33.4%									A
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	0	23	4	7	1	12	416	2	2	431	196
Future Volume (vph)	251	0	23	4	7	1	12	416	2	2	431	196
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1611	1504		1815		1770	3537		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.49	1.00	1.00
Satd. Flow (perm)	1681	1611	1504		1843		1770	3537		913	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	273	0	25	4	8	1	13	452	2	2	468	213
RTOR Reduction (vph)	0	116	19	0	1	0	0	0	0	0	0	88
Lane Group Flow (vph)	139	21	3	0	12	0	13	454	0	2	468	125
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	
Permitted Phases			4	8						6		6
Actuated Green, G (s)	12.0	12.0	12.0		1.5		1.5	53.0		47.0	47.0	47.0
Effective Green, g (s)	12.0	12.0	12.0		1.5		1.5	53.0		47.0	47.0	47.0
Actuated g/C Ratio	0.15	0.15	0.15		0.02		0.02	0.66		0.59	0.59	0.59
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	252	241	225		34		33	2343		536	2079	930
v/s Ratio Prot	c0.08	0.01					0.01	c0.13			c0.13	
v/s Ratio Perm			0.00		c0.01					0.00		0.08
v/c Ratio	0.55	0.09	0.01		0.35		0.39	0.19		0.00	0.23	0.13
Uniform Delay, d1	31.5	29.3	29.0		38.8		38.8	5.2		6.8	7.8	7.4
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.6	0.2	0.0		6.2		7.6	0.2		0.0	0.3	0.3
Delay (s)	34.1	29.4	29.0		45.0		46.4	5.4		6.8	8.1	7.7
Level of Service	C	C	C		D		D	A		A	A	A
Approach Delay (s)		31.6			45.0			6.6			8.0	
Approach LOS		C			D			A			A	

Intersection Summary

HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary

6: Foothill Blvd & Indian Hill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷	↷	↶	↷		↶	↷	↷
Traffic Volume (veh/h)	64	667	152	150	675	86	200	273	148	130	243	74
Future Volume (veh/h)	64	667	152	150	675	86	200	273	148	130	243	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	725	165	163	734	93	217	297	161	141	264	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	773	176	194	1162	518	254	671	355	176	476	404
Arrive On Green	0.05	0.27	0.27	0.11	0.33	0.33	0.14	0.30	0.30	0.10	0.25	0.25
Sat Flow, veh/h	1781	2875	654	1781	3554	1585	1781	2247	1187	1781	1870	1585
Grp Volume(v), veh/h	70	448	442	163	734	93	217	233	225	141	264	80
Grp Sat Flow(s),veh/h/ln	1781	1777	1753	1781	1777	1585	1781	1777	1657	1781	1870	1585
Q Serve(g_s), s	3.1	19.7	19.7	7.2	14.0	3.4	9.5	8.5	8.8	6.2	9.8	3.2
Cycle Q Clear(g_c), s	3.1	19.7	19.7	7.2	14.0	3.4	9.5	8.5	8.8	6.2	9.8	3.2
Prop In Lane	1.00		0.37	1.00		1.00	1.00		0.72	1.00		1.00
Lane Grp Cap(c), veh/h	90	478	471	194	1162	518	254	531	495	176	476	404
V/C Ratio(X)	0.78	0.94	0.94	0.84	0.63	0.18	0.85	0.44	0.45	0.80	0.55	0.20
Avail Cap(c_a), veh/h	131	478	471	194	1162	518	256	531	495	216	476	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	37.5	28.6	28.6	35.0	22.8	19.2	33.5	22.6	22.7	35.3	25.9	23.4
Incr Delay (d2), s/veh	16.2	26.4	26.8	26.9	1.1	0.2	23.2	2.6	3.0	14.4	4.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	11.2	11.1	4.4	5.6	1.2	5.6	3.7	3.6	3.3	4.7	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	55.0	55.4	61.9	23.9	19.4	56.7	25.3	25.7	49.7	29.9	24.4
LnGrp LOS	D	E	E	E	C	B	E	C	C	D	C	C
Approach Vol, veh/h		960			990			675			485	
Approach Delay, s/veh		55.1			29.8			35.5			34.7	
Approach LOS		E			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	28.4	13.2	26.0	15.9	24.9	8.5	30.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.7	22.1	8.7	21.5	11.5	20.3	5.9	24.3				
Max Q Clear Time (g_c+I1), s	8.2	10.8	9.2	21.7	11.5	11.8	5.1	16.0				
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.0	1.1	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				39.6								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary

6: Foothill Blvd & Indian Hill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	663	126	125	596	81	190	239	142	122	227	90
Future Volume (veh/h)	55	663	126	125	596	81	190	239	142	122	227	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	721	137	136	648	88	207	260	154	133	247	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	789	150	169	1115	497	245	700	401	167	520	440
Arrive On Green	0.05	0.26	0.26	0.10	0.31	0.31	0.14	0.32	0.32	0.09	0.28	0.28
Sat Flow, veh/h	1781	2979	566	1781	3554	1585	1781	2176	1247	1781	1870	1585
Grp Volume(v), veh/h	60	430	428	136	648	88	207	211	203	133	247	98
Grp Sat Flow(s),veh/h/ln	1781	1777	1769	1781	1777	1585	1781	1777	1646	1781	1870	1585
Q Serve(g_s), s	2.7	18.8	18.8	6.0	12.2	3.2	9.1	7.3	7.6	5.9	8.8	3.8
Cycle Q Clear(g_c), s	2.7	18.8	18.8	6.0	12.2	3.2	9.1	7.3	7.6	5.9	8.8	3.8
Prop In Lane	1.00		0.32	1.00		1.00	1.00		0.76	1.00		1.00
Lane Grp Cap(c), veh/h	82	470	468	169	1115	497	245	571	529	167	520	440
V/C Ratio(X)	0.73	0.91	0.91	0.80	0.58	0.18	0.85	0.37	0.38	0.80	0.48	0.22
Avail Cap(c_a), veh/h	154	478	475	189	1115	497	256	571	529	212	520	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	37.7	28.5	28.5	35.5	23.0	19.9	33.7	20.9	21.0	35.5	24.0	22.2
Incr Delay (d2), s/veh	11.8	21.9	22.1	19.7	0.8	0.2	21.6	1.8	2.1	13.8	2.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	10.2	10.2	3.4	4.8	1.1	5.2	3.1	3.1	3.1	4.1	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	50.4	50.6	55.2	23.8	20.1	55.2	22.7	23.1	49.3	26.8	23.3
LnGrp LOS	D	D	D	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		918			872			621			478	
Approach Delay, s/veh		50.5			28.3			33.7			32.3	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	30.2	12.1	25.7	15.5	26.7	8.2	29.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	22.5	8.5	21.5	11.5	20.5	6.9	23.1				
Max Q Clear Time (g_c+I1), s	7.9	9.6	8.0	20.8	11.1	10.8	4.7	14.2				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.4	0.0	1.2	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay			37.2									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗			↗			↗
Traffic Vol, veh/h	46	876	56	75	843	11	0	0	107	0	0	47
Future Vol, veh/h	46	876	56	75	843	11	0	0	107	0	0	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	952	61	82	916	12	0	0	116	0	0	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	928	0	0	1013	0	0	-	-	476	-	-	458
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	733	-	-	680	-	-	0	0	535	0	0	550
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	733	-	-	680	-	-	-	-	535	-	-	550
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.9			13.6			12.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	535	733	-	-	680	-	-	550
HCM Lane V/C Ratio	0.217	0.068	-	-	0.12	-	-	0.093
HCM Control Delay (s)	13.6	10.3	-	-	11	-	-	12.2
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.8	0.2	-	-	0.4	-	-	0.3

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘			↖			↖
Traffic Vol, veh/h	44	988	61	91	835	24	0	0	138	0	0	46
Future Vol, veh/h	44	988	61	91	835	24	0	0	138	0	0	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	1074	66	99	908	26	0	0	150	0	0	50

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	934	0	0	1140	0	0	-	-	537	-	-	454
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	729	-	-	609	-	-	0	0	488	0	0	553
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	729	-	-	609	-	-	-	-	488	-	-	553
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			1.2			15.6			12.2		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	488	729	-	-	609	-	-	553
HCM Lane V/C Ratio	0.307	0.066	-	-	0.162	-	-	0.09
HCM Control Delay (s)	15.6	10.3	-	-	12.1	-	-	12.2
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.3	0.2	-	-	0.6	-	-	0.3

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	9	956	30	37	913	10	37	5	26	27	8	0
Future Volume (veh/h)	9	956	30	37	913	10	37	5	26	27	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1039	33	40	992	11	40	5	28	29	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	1445	645	229	1464	16	423	75	240	579	164	0
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.00
Sat Flow, veh/h	562	3554	1585	526	3600	40	754	180	582	1095	396	0
Grp Volume(v), veh/h	10	1039	33	40	490	513	73	0	0	38	0	0
Grp Sat Flow(s),veh/h/ln	562	1777	1585	526	1777	1863	1517	0	0	1490	0	0
Q Serve(g_s), s	0.7	12.3	0.6	3.4	11.3	11.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.0	12.3	0.6	15.7	11.3	11.3	1.3	0.0	0.0	0.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.55		0.38	0.76		0.00
Lane Grp Cap(c), veh/h	246	1445	645	229	723	758	738	0	0	743	0	0
V/C Ratio(X)	0.04	0.72	0.05	0.17	0.68	0.68	0.10	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	270	1599	713	252	800	838	738	0	0	743	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.1	12.4	9.0	19.0	12.2	12.2	9.0	0.0	0.0	8.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.4	0.0	0.2	1.2	1.2	0.3	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.9	0.2	0.4	3.6	3.7	0.5	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	13.9	9.0	19.2	13.4	13.3	9.2	0.0	0.0	8.9	0.0	0.0
LnGrp LOS	B	B	A	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1082			1043			73			38	
Approach Delay, s/veh		13.7			13.6			9.2			8.9	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.2		24.8		25.2		24.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		3.3		14.3		2.6		17.7				
Green Ext Time (p_c), s		0.2		4.3		0.1		2.6				
Intersection Summary												
HCM 6th Ctrl Delay				13.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

8: Dartmouth Ave & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	14	959	27	32	990	10	16	2	24	10	4	0
Future Volume (veh/h)	14	959	27	32	990	10	16	2	24	10	4	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	1042	29	35	1076	11	17	2	26	11	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	225	1373	612	229	1392	14	307	75	372	572	188	0
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.41	0.41	0.41	0.41	0.41	0.00
Sat Flow, veh/h	519	3554	1585	527	3604	37	475	181	898	1047	454	0
Grp Volume(v), veh/h	15	1042	29	35	531	556	45	0	0	15	0	0
Grp Sat Flow(s),veh/h/ln	519	1777	1585	527	1777	1864	1555	0	0	1501	0	0
Q Serve(g_s), s	1.2	11.5	0.5	2.8	11.8	11.8	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.9	11.5	0.5	14.2	11.8	11.8	0.7	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.38		0.58	0.73		0.00
Lane Grp Cap(c), veh/h	225	1373	612	229	686	720	753	0	0	759	0	0
V/C Ratio(X)	0.07	0.76	0.05	0.15	0.77	0.77	0.06	0.00	0.00	0.02	0.00	0.00
Avail Cap(c_a), veh/h	232	1421	634	237	711	745	753	0	0	759	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.54	0.54	0.54	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	12.0	8.6	18.2	12.1	12.1	7.9	0.0	0.0	7.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	2.4	0.0	0.2	2.8	2.7	0.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.6	0.1	0.3	3.8	4.0	0.2	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	14.3	8.7	18.3	14.9	14.8	8.1	0.0	0.0	7.8	0.0	0.0
LnGrp LOS	B	B	A	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1086			1122			45			15	
Approach Delay, s/veh		14.2			15.0			8.1			7.8	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.1		21.9		23.1		21.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.7		14.9		2.2		16.2				
Green Ext Time (p_c), s		0.1		1.9		0.0		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				14.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	915	18	22	769	127	5	6	34	143	5	166
Future Volume (veh/h)	165	915	18	22	769	127	5	6	34	143	5	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	995	20	24	836	138	5	7	37	155	5	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	1285	26	46	943	421	220	283	446	190	832	705
Arrive On Green	0.12	0.36	0.36	0.03	0.27	0.27	0.28	0.28	0.28	0.11	0.44	0.44
Sat Flow, veh/h	1781	3563	72	1781	3554	1585	553	1007	1585	1781	1870	1585
Grp Volume(v), veh/h	179	496	519	24	836	138	12	0	37	155	5	180
Grp Sat Flow(s),veh/h/ln	1781	1777	1857	1781	1777	1585	1560	0	1585	1781	1870	1585
Q Serve(g_s), s	7.9	19.8	19.8	1.1	18.1	5.6	0.0	0.0	1.4	6.8	0.1	5.7
Cycle Q Clear(g_c), s	7.9	19.8	19.8	1.1	18.1	5.6	0.4	0.0	1.4	6.8	0.1	5.7
Prop In Lane	1.00		0.04	1.00		1.00	0.42		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	641	670	46	943	421	503	0	446	190	832	705
V/C Ratio(X)	0.83	0.77	0.77	0.52	0.89	0.33	0.02	0.00	0.08	0.81	0.01	0.26
Avail Cap(c_a), veh/h	234	641	670	114	982	438	503	0	446	212	832	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	0.81	0.81	0.81	1.00	0.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	34.3	22.7	22.7	38.5	28.2	23.6	20.8	0.0	21.1	34.9	12.4	13.9
Incr Delay (d2), s/veh	13.7	3.8	3.6	7.2	8.0	0.4	0.1	0.0	0.4	19.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	8.2	8.5	0.5	8.1	2.0	0.2	0.0	0.5	3.8	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	26.5	26.3	45.7	36.2	24.0	20.9	0.0	21.5	53.9	12.4	14.8
LnGrp LOS	D	C	C	D	D	C	C	A	C	D	B	B
Approach Vol, veh/h		1194			998			49				340
Approach Delay, s/veh		29.6			34.8			21.4				32.6
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2	3	4	6	7	8					
Phs Duration (G+Y+Rc), s	13.1	27.0	6.6	33.4	40.1	14.2	25.7					
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s	9.5	19.9	5.1	27.5	33.9	10.5	22.1					
Max Q Clear Time (g_c+I1), s	8.8	3.4	3.1	21.8	7.7	9.9	20.1					
Green Ext Time (p_c), s	0.0	0.1	0.0	2.9	0.6	0.0	1.2					
Intersection Summary												
HCM 6th Ctrl Delay				31.8								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↖		↖	↖	↖	↕	↖
Traffic Volume (veh/h)	145	832	11	36	805	158	9	3	18	87	1	147
Future Volume (veh/h)	145	832	11	36	805	158	9	3	18	87	1	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	904	12	39	875	172	10	3	20	95	1	160
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	1232	16	68	973	434	383	104	465	122	797	676
Arrive On Green	0.11	0.34	0.34	0.04	0.27	0.27	0.29	0.29	0.29	0.07	0.43	0.43
Sat Flow, veh/h	1781	3591	48	1781	3554	1585	994	353	1585	1781	1870	1585
Grp Volume(v), veh/h	158	447	469	39	875	172	13	0	20	95	1	160
Grp Sat Flow(s),veh/h/ln	1781	1777	1862	1781	1777	1585	1347	0	1585	1781	1870	1585
Q Serve(g_s), s	6.1	15.5	15.5	1.5	16.6	6.2	0.0	0.0	0.6	3.7	0.0	4.5
Cycle Q Clear(g_c), s	6.1	15.5	15.5	1.5	16.6	6.2	0.3	0.0	0.6	3.7	0.0	4.5
Prop In Lane	1.00		0.03	1.00		1.00	0.77		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	609	639	68	973	434	486	0	465	122	797	676
V/C Ratio(X)	0.83	0.73	0.73	0.58	0.90	0.40	0.03	0.00	0.04	0.78	0.00	0.24
Avail Cap(c_a), veh/h	191	609	639	130	990	442	486	0	465	140	797	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	0.83	0.83	0.83	1.00	0.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	30.6	20.2	20.2	33.1	24.5	20.7	17.6	0.0	17.7	32.1	11.5	12.8
Incr Delay (d2), s/veh	15.5	2.6	2.5	6.3	9.3	0.5	0.1	0.0	0.2	21.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	6.1	6.3	0.7	7.5	2.1	0.2	0.0	0.2	2.2	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	22.8	22.7	39.4	33.8	21.2	17.7	0.0	17.9	53.1	11.5	13.6
LnGrp LOS	D	C	C	D	C	C	B	A	B	D	B	B
Approach Vol, veh/h		1074			1086			33			256	
Approach Delay, s/veh		26.2			32.0			17.8			28.2	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	9.3	25.1	7.2	28.5		34.3	12.0	23.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	19.5	5.1	21.9		29.5	7.5	19.5				
Max Q Clear Time (g_c+I1), s	5.7	2.6	3.5	17.5		6.5	8.1	18.6				
Green Ext Time (p_c), s	0.0	0.1	0.0	2.1		0.5	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay				28.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑↑		↘	↑↑	
Traffic Volume (veh/h)	147	708	176	123	665	41	114	201	103	64	180	87
Future Volume (veh/h)	147	708	176	123	665	41	114	201	103	64	180	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	160	770	191	134	723	45	124	218	112	70	196	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	975	435	172	913	407	974	931	461	476	952	443
Arrive On Green	0.11	0.27	0.27	0.10	0.26	0.26	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2111	2303	1139	1050	2354	1096
Grp Volume(v), veh/h	160	770	191	134	723	45	124	166	164	70	146	145
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1056	1777	1665	1050	1777	1673
Q Serve(g_s), s	5.2	12.0	6.0	4.4	11.4	1.3	2.4	3.7	3.9	2.8	3.2	3.4
Cycle Q Clear(g_c), s	5.2	12.0	6.0	4.4	11.4	1.3	5.8	3.7	3.9	6.7	3.2	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		0.66
Lane Grp Cap(c), veh/h	203	975	435	172	913	407	974	718	673	476	718	677
V/C Ratio(X)	0.79	0.79	0.44	0.78	0.79	0.11	0.13	0.23	0.24	0.15	0.20	0.21
Avail Cap(c_a), veh/h	282	1125	502	252	1066	476	974	718	673	476	718	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	20.2	18.0	26.5	20.8	17.0	13.6	11.7	11.8	14.0	11.6	11.7
Incr Delay (d2), s/veh	6.6	2.3	0.5	9.1	3.6	0.1	0.3	0.7	0.8	0.6	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.6	2.0	2.1	4.6	0.4	0.5	1.4	1.3	0.7	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	22.4	18.4	35.6	24.4	17.2	13.8	12.5	12.7	14.7	12.2	12.4
LnGrp LOS	C	C	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		1121			902			454			361	
Approach Delay, s/veh		23.2			25.7			12.9			12.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.8	10.3	21.0		28.8	11.3	19.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	8.5	19.0		19.0	9.5	18.0				
Max Q Clear Time (g_c+I1), s		7.8	6.4	14.0		8.7	7.2	13.4				
Green Ext Time (p_c), s		1.8	0.1	2.4		1.3	0.1	2.0				
Intersection Summary												
HCM 6th Ctrl Delay				21.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑↑		↘	↑↑	
Traffic Volume (veh/h)	125	716	105	118	644	49	163	193	114	54	163	73
Future Volume (veh/h)	125	716	105	118	644	49	163	193	114	54	163	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	136	778	114	128	700	53	177	210	124	59	177	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	965	431	164	946	422	1030	899	509	481	996	427
Arrive On Green	0.10	0.27	0.27	0.09	0.27	0.27	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2180	2187	1237	1046	2422	1038
Grp Volume(v), veh/h	136	778	114	128	700	53	177	169	165	59	128	128
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1090	1777	1648	1046	1777	1684
Q Serve(g_s), s	4.5	12.2	3.4	4.2	10.8	1.5	3.4	3.7	3.9	2.3	2.7	2.9
Cycle Q Clear(g_c), s	4.5	12.2	3.4	4.2	10.8	1.5	6.3	3.7	3.9	6.3	2.7	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.75	1.00		0.62
Lane Grp Cap(c), veh/h	174	965	431	164	946	422	1030	730	677	481	730	692
V/C Ratio(X)	0.78	0.81	0.26	0.78	0.74	0.13	0.17	0.23	0.24	0.12	0.18	0.19
Avail Cap(c_a), veh/h	252	1096	489	252	1096	489	1030	730	677	481	730	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	20.4	17.1	26.6	20.1	16.7	13.3	11.5	11.6	13.6	11.2	11.3
Incr Delay (d2), s/veh	6.4	2.7	0.2	8.1	2.3	0.1	0.4	0.7	0.8	0.5	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.8	1.1	2.0	4.2	0.5	0.8	1.4	1.3	0.5	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	23.1	17.4	34.8	22.4	16.8	13.6	12.2	12.4	14.1	11.7	11.9
LnGrp LOS	C	C	B	C	C	B	B	B	B	B	B	B
Approach Vol, veh/h		1028			881			511			315	
Approach Delay, s/veh		23.7			23.9			12.8			12.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.2	10.0	20.8		29.2	10.4	20.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	8.5	18.5		19.5	8.5	18.5				
Max Q Clear Time (g_c+I1), s		8.3	6.2	14.2		8.3	6.5	12.8				
Green Ext Time (p_c), s		2.1	0.1	2.1		1.2	0.1	2.2				
Intersection Summary												
HCM 6th Ctrl Delay				20.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	689	147	128	650	161	150	271	94	147	320	71
Future Volume (veh/h)	36	689	147	128	650	161	150	271	94	147	320	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	725	155	135	684	169	158	285	99	155	337	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	914	408	255	1038	463	265	1054	470	264	1247	267
Arrive On Green	0.04	0.26	0.26	0.07	0.29	0.29	0.08	0.30	0.30	0.08	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4209	903
Grp Volume(v), veh/h	38	725	155	135	684	169	158	285	99	155	270	142
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1708
Q Serve(g_s), s	1.3	11.6	4.9	2.3	10.3	5.1	2.7	3.7	2.8	2.6	3.7	3.9
Cycle Q Clear(g_c), s	1.3	11.6	4.9	2.3	10.3	5.1	2.7	3.7	2.8	2.6	3.7	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	69	914	408	255	1038	463	265	1054	470	264	1008	506
V/C Ratio(X)	0.55	0.79	0.38	0.53	0.66	0.37	0.60	0.27	0.21	0.59	0.27	0.28
Avail Cap(c_a), veh/h	147	1053	470	284	1053	470	284	1054	470	284	1008	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	21.1	18.6	27.1	18.9	17.0	27.1	16.3	16.0	27.1	16.3	16.4
Incr Delay (d2), s/veh	6.6	3.7	0.6	1.7	1.5	0.5	3.0	0.6	1.0	2.8	0.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.7	1.6	0.9	3.9	1.7	1.1	1.4	1.0	1.1	1.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	24.8	19.2	28.8	20.4	17.5	30.2	17.0	17.1	29.9	17.0	17.8
LnGrp LOS	D	C	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		918			988			542			567	
Approach Delay, s/veh		24.3			21.0			20.8			20.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	22.5	9.0	20.1	9.2	22.5	6.9	22.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.6	5.7	4.3	13.6	4.7	5.9	3.3	12.3				
Green Ext Time (p_c), s	0.0	1.5	0.0	2.1	0.0	1.8	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			21.9									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑↗	
Traffic Volume (veh/h)	78	740	114	110	651	134	122	222	93	104	283	35
Future Volume (veh/h)	78	740	114	110	651	134	122	222	93	104	283	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	779	120	116	685	141	128	234	98	109	298	37
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	948	423	244	980	437	251	1061	473	239	1361	165
Arrive On Green	0.06	0.27	0.27	0.07	0.28	0.28	0.07	0.30	0.30	0.07	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4614	559
Grp Volume(v), veh/h	82	779	120	116	685	141	128	234	98	109	218	117
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1770
Q Serve(g_s), s	2.8	12.6	3.7	2.0	10.6	4.3	2.2	3.0	2.8	1.8	2.9	3.0
Cycle Q Clear(g_c), s	2.8	12.6	3.7	2.0	10.6	4.3	2.2	3.0	2.8	1.8	2.9	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	110	948	423	244	980	437	251	1061	473	239	1004	522
V/C Ratio(X)	0.75	0.82	0.28	0.48	0.70	0.32	0.51	0.22	0.21	0.46	0.22	0.22
Avail Cap(c_a), veh/h	146	1048	468	283	1048	468	283	1061	473	283	1004	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	21.0	17.7	27.3	19.8	17.6	27.2	16.1	16.0	27.3	16.2	16.2
Incr Delay (d2), s/veh	13.6	4.9	0.4	1.4	1.9	0.4	1.6	0.5	1.0	1.4	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.2	1.2	0.8	4.0	1.4	0.9	1.1	1.0	0.7	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	25.9	18.1	28.7	21.7	18.0	28.9	16.5	17.0	28.7	16.7	17.2
LnGrp LOS	D	C	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		981			942			460			444	
Approach Delay, s/veh		26.3			22.0			20.1			19.8	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	22.7	8.8	20.8	8.9	22.5	8.3	21.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.8	5.0	4.0	14.6	4.2	5.0	4.8	12.6				
Green Ext Time (p_c), s	0.0	1.3	0.0	1.7	0.0	1.5	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				22.8								
HCM 6th LOS				C								

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	807	172	310	794	0	172	0	355	1	0	0
Future Volume (vph)	15	807	172	310	794	0	172	0	355	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		0.95	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1457	1504		3362	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1457	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	849	181	326	836	0	181	0	374	1	0	0
RTOR Reduction (vph)	0	0	101	0	0	0	0	129	139	0	0	0
Lane Group Flow (vph)	16	849	80	326	836	0	163	69	55	0	1	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	412	425		55	
v/s Ratio Prot	0.01	c0.24		c0.09	c0.24		c0.10	0.05				
v/s Ratio Perm			0.05						0.04		c0.00	
v/c Ratio	0.67	0.70	0.15	1.22	0.58		0.34	0.17	0.13		0.02	
Uniform Delay, d1	31.4	18.2	14.6	29.5	14.8		18.2	17.3	17.1		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	52.8	1.9	0.1	126.5	0.6		2.0	0.9	0.6		0.1	
Delay (s)	84.2	20.1	14.7	156.0	15.4		20.2	18.2	17.7		31.1	
Level of Service	F	C	B	F	B		C	B	B		C	
Approach Delay (s)		20.1			54.8			18.6			31.1	
Approach LOS		C			D			B			C	

Intersection Summary

HCM 2000 Control Delay	34.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙↗	↑↑		↙	↕	↗		↕	↗
Traffic Volume (vph)	14	826	179	296	729	0	166	0	337	0	0	2
Future Volume (vph)	14	826	179	296	729	0	166	0	337	0	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1458	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1458	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	869	188	312	767	0	175	0	355	0	0	2
RTOR Reduction (vph)	0	0	103	0	0	0	0	122	133	0	2	0
Lane Group Flow (vph)	15	869	85	312	767	0	157	66	52	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	412	425		47	
v/s Ratio Prot	0.01	c0.25		c0.09	c0.22		c0.09	0.05			c0.00	
v/s Ratio Perm			0.05						0.03			
v/c Ratio	0.62	0.72	0.16	1.16	0.53		0.33	0.16	0.12		0.00	
Uniform Delay, d1	31.4	18.4	14.6	29.5	14.4		18.2	17.2	17.1		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	41.4	2.1	0.1	106.8	0.4		1.9	0.8	0.6		0.0	
Delay (s)	72.7	20.4	14.8	136.3	14.8		20.0	18.1	17.6		31.0	
Level of Service	E	C	B	F	B		C	B	B		C	
Approach Delay (s)		20.2			49.9			18.5			31.0	
Approach LOS		C			D			B			C	

Intersection Summary

HCM 2000 Control Delay	31.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	9	9	25	10	45	3	568	35	28	529	6
Future Vol, veh/h	0	9	9	25	10	45	3	568	35	28	529	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	10	27	11	49	3	617	38	30	575	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1311	1300	579	1291	1284	636	582	0	0	655	0	0
Stage 1	639	639	-	642	642	-	-	-	-	-	-	-
Stage 2	672	661	-	649	642	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	161	515	140	165	478	992	-	-	932	-	-
Stage 1	464	470	-	463	469	-	-	-	-	-	-	-
Stage 2	445	460	-	458	469	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	113	155	515	127	159	478	992	-	-	932	-	-
Mov Cap-2 Maneuver	113	155	-	127	159	-	-	-	-	-	-	-
Stage 1	463	455	-	462	468	-	-	-	-	-	-	-
Stage 2	389	459	-	425	454	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.5		30.6		0		0.4	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	992	-	-	238	226	932	-
HCM Lane V/C Ratio	0.003	-	-	0.082	0.385	0.033	-
HCM Control Delay (s)	8.6	-	-	21.5	30.6	9	-
HCM Lane LOS	A	-	-	C	D	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	1.7	0.1	-

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	3	6	3	43	10	55	6	617	23	18	512	0
Future Vol, veh/h	3	6	3	43	10	55	6	617	23	18	512	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	7	3	47	11	60	7	671	25	20	557	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1330	1307	557	1300	1295	684	557	0	0	696	0	0
Stage 1	597	597	-	698	698	-	-	-	-	-	-	-
Stage 2	733	710	-	602	597	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	132	160	530	138	162	449	1014	-	-	900	-	-
Stage 1	490	491	-	431	442	-	-	-	-	-	-	-
Stage 2	412	437	-	486	491	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	106	155	530	130	157	449	1014	-	-	900	-	-
Mov Cap-2 Maneuver	106	155	-	130	157	-	-	-	-	-	-	-
Stage 1	487	480	-	428	439	-	-	-	-	-	-	-
Stage 2	346	434	-	466	480	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	28.7		42.3		0.1		0.3	
HCM LOS	D		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1014	-	-	165	209	900	-
HCM Lane V/C Ratio	0.006	-	-	0.079	0.562	0.022	-
HCM Control Delay (s)	8.6	-	-	28.7	42.3	9.1	-
HCM Lane LOS	A	-	-	D	E	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	3	0.1	-

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	106	4	74	112	18	7	180	75	20	179	9
Future Vol, veh/h	10	106	4	74	112	18	7	180	75	20	179	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	115	4	80	122	20	8	196	82	22	195	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.2	11.4	11.7	11.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	8%	36%	10%
Vol Thru, %	69%	88%	55%	86%
Vol Right, %	29%	3%	9%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	262	120	204	208
LT Vol	7	10	74	20
Through Vol	180	106	112	179
RT Vol	75	4	18	9
Lane Flow Rate	285	130	222	226
Geometry Grp	1	1	1	1
Degree of Util (X)	0.406	0.206	0.341	0.337
Departure Headway (Hd)	5.134	5.685	5.54	5.371
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	701	630	647	669
Service Time	3.173	3.732	3.582	3.414
HCM Lane V/C Ratio	0.407	0.206	0.343	0.338
HCM Control Delay	11.7	10.2	11.4	11.1
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2	0.8	1.5	1.5

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	67	11	81	128	20	32	178	65	16	141	16
Future Vol, veh/h	3	67	11	81	128	20	32	178	65	16	141	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	73	12	88	139	22	35	193	71	17	153	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.5	11.6	11.7	10.3
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	4%	35%	9%
Vol Thru, %	65%	83%	56%	82%
Vol Right, %	24%	14%	9%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	275	81	229	173
LT Vol	32	3	81	16
Through Vol	178	67	128	141
RT Vol	65	11	20	16
Lane Flow Rate	299	88	249	188
Geometry Grp	1	1	1	1
Degree of Util (X)	0.419	0.136	0.372	0.276
Departure Headway (Hd)	5.049	5.566	5.376	5.286
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	714	644	670	679
Service Time	3.08	3.605	3.405	3.32
HCM Lane V/C Ratio	0.419	0.137	0.372	0.277
HCM Control Delay	11.7	9.5	11.6	10.3
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	2.1	0.5	1.7	1.1

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	186	17	27	201	5	19	0	9	2	5	0
Future Vol, veh/h	3	186	17	27	201	5	19	0	9	2	5	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	202	18	29	218	5	21	0	10	2	5	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	9	8.1	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	68%	1%	12%	29%
Vol Thru, %	0%	90%	86%	71%
Vol Right, %	32%	8%	2%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	206	233	7
LT Vol	19	3	27	2
Through Vol	0	186	201	5
RT Vol	9	17	5	0
Lane Flow Rate	30	224	253	8
Geometry Grp	1	1	1	1
Degree of Util (X)	0.042	0.258	0.294	0.011
Departure Headway (Hd)	4.918	4.145	4.18	5.067
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	732	851	846	710
Service Time	2.919	2.243	2.269	3.07
HCM Lane V/C Ratio	0.041	0.263	0.299	0.011
HCM Control Delay	8.1	8.7	9	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1	1.2	0

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	164	18	16	244	4	15	0	11	2	4	3
Future Vol, veh/h	6	164	18	16	244	4	15	0	11	2	4	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	178	20	17	265	4	16	0	12	2	4	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	9.3	8.1	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	3%	6%	22%
Vol Thru, %	0%	87%	92%	44%
Vol Right, %	42%	10%	2%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	188	264	9
LT Vol	15	6	16	2
Through Vol	0	164	244	4
RT Vol	11	18	4	3
Lane Flow Rate	28	204	287	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.038	0.242	0.331	0.013
Departure Headway (Hd)	4.867	4.266	4.158	4.876
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	738	846	852	737
Service Time	2.877	2.266	2.244	2.889
HCM Lane V/C Ratio	0.038	0.241	0.337	0.014
HCM Control Delay	8.1	8.6	9.3	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.9	1.5	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	65	131	31	91	136	73	42	339	105	56	298	87
Future Volume (veh/h)	65	131	31	91	136	73	42	339	105	56	298	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	138	33	96	143	77	44	357	111	59	314	92
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	201	48	228	239	203	474	910	279	452	952	274
Arrive On Green	0.14	0.14	0.14	0.13	0.13	0.13	0.04	0.34	0.34	0.05	0.35	0.35
Sat Flow, veh/h	1781	1459	349	1781	1870	1585	1781	2678	821	1781	2722	784
Grp Volume(v), veh/h	68	0	171	96	143	77	44	235	233	59	203	203
Grp Sat Flow(s),veh/h/ln	1781	0	1808	1781	1870	1585	1781	1777	1723	1781	1777	1729
Q Serve(g_s), s	1.8	0.0	4.8	2.6	3.8	2.4	0.8	5.3	5.5	1.1	4.4	4.6
Cycle Q Clear(g_c), s	1.8	0.0	4.8	2.6	3.8	2.4	0.8	5.3	5.5	1.1	4.4	4.6
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.48	1.00		0.45
Lane Grp Cap(c), veh/h	245	0	249	228	239	203	474	604	585	452	621	605
V/C Ratio(X)	0.28	0.00	0.69	0.42	0.60	0.38	0.09	0.39	0.40	0.13	0.33	0.34
Avail Cap(c_a), veh/h	605	0	614	605	636	539	562	604	585	523	621	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	21.8	21.3	21.8	21.2	10.4	13.3	13.3	10.3	12.6	12.7
Incr Delay (d2), s/veh	0.6	0.0	3.4	1.2	2.4	1.2	0.1	1.9	2.0	0.1	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.0	1.1	1.7	0.9	0.3	2.0	2.0	0.4	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	0.0	25.1	22.5	24.2	22.3	10.5	15.2	15.4	10.5	14.1	14.2
LnGrp LOS	C	A	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		239			316			512			465	
Approach Delay, s/veh		24.0			23.2			14.9			13.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	22.5		11.8	6.9	23.0		11.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	3.1	7.5		6.8	2.8	6.6		5.8				
Green Ext Time (p_c), s	0.0	1.9		0.7	0.0	1.7		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	66	132	40	86	134	43	34	287	89	77	353	83
Future Volume (veh/h)	66	132	40	86	134	43	34	287	89	77	353	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	69	139	42	91	141	45	36	302	94	81	372	87
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	198	60	220	231	195	448	895	273	494	1033	239
Arrive On Green	0.14	0.14	0.14	0.12	0.12	0.12	0.04	0.33	0.33	0.07	0.36	0.36
Sat Flow, veh/h	1781	1379	417	1781	1870	1585	1781	2681	819	1781	2865	663
Grp Volume(v), veh/h	69	0	181	91	141	45	36	198	198	81	229	230
Grp Sat Flow(s),veh/h/ln	1781	0	1795	1781	1870	1585	1781	1777	1723	1781	1777	1751
Q Serve(g_s), s	1.9	0.0	5.2	2.5	3.9	1.4	0.7	4.5	4.7	1.5	5.1	5.2
Cycle Q Clear(g_c), s	1.9	0.0	5.2	2.5	3.9	1.4	0.7	4.5	4.7	1.5	5.1	5.2
Prop In Lane	1.00		0.23	1.00		1.00	1.00		0.48	1.00		0.38
Lane Grp Cap(c), veh/h	256	0	258	220	231	195	448	593	575	494	640	631
V/C Ratio(X)	0.27	0.00	0.70	0.41	0.61	0.23	0.08	0.33	0.34	0.16	0.36	0.36
Avail Cap(c_a), veh/h	595	0	599	595	624	529	545	593	575	543	640	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	22.0	21.8	22.4	21.3	11.0	13.5	13.5	10.4	12.7	12.7
Incr Delay (d2), s/veh	0.6	0.0	3.4	1.2	2.6	0.6	0.1	1.5	1.6	0.2	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.1	1.1	1.7	0.5	0.2	1.7	1.7	0.5	1.9	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	0.0	25.4	23.1	25.0	21.9	11.0	15.0	15.1	10.6	14.2	14.3
LnGrp LOS	C	A	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		250			277			432			540	
Approach Delay, s/veh		24.2			23.9			14.7			13.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	22.5		12.3	6.6	23.9		11.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	3.5	6.7		7.2	2.7	7.2		5.9				
Green Ext Time (p_c), s	0.0	1.6		0.8	0.0	1.9		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				17.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↗↘↙		↗	↗↘↙	
Traffic Volume (veh/h)	90	161	38	48	157	46	53	371	31	29	523	62
Future Volume (veh/h)	90	161	38	48	157	46	53	371	31	29	523	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	169	40	51	165	48	56	391	33	31	551	65
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	132	461	106	91	258	218	188	1855	154	63	1701	198
Arrive On Green	0.07	0.16	0.16	0.05	0.14	0.14	0.05	0.39	0.39	0.04	0.37	0.37
Sat Flow, veh/h	1781	2866	662	1781	1870	1585	3456	4803	400	1781	4637	540
Grp Volume(v), veh/h	95	103	106	51	165	48	56	276	148	31	403	213
Grp Sat Flow(s),veh/h/ln	1781	1777	1751	1781	1870	1585	1728	1702	1798	1781	1702	1773
Q Serve(g_s), s	2.6	2.5	2.6	1.4	4.1	1.3	0.8	2.7	2.7	0.8	4.2	4.2
Cycle Q Clear(g_c), s	2.6	2.5	2.6	1.4	4.1	1.3	0.8	2.7	2.7	0.8	4.2	4.2
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.22	1.00		0.30
Lane Grp Cap(c), veh/h	132	286	282	91	258	218	188	1315	694	63	1249	651
V/C Ratio(X)	0.72	0.36	0.38	0.56	0.64	0.22	0.30	0.21	0.21	0.50	0.32	0.33
Avail Cap(c_a), veh/h	182	652	643	182	686	582	352	1315	694	182	1249	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	18.3	18.4	22.7	20.0	18.8	22.3	10.1	10.1	23.2	11.2	11.2
Incr Delay (d2), s/veh	8.4	0.8	0.8	5.3	2.6	0.5	0.9	0.4	0.7	6.0	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.9	0.9	0.6	1.7	0.4	0.3	0.8	0.9	0.4	1.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	19.1	19.2	28.1	22.6	19.3	23.2	10.4	10.8	29.2	11.8	12.5
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		304			264			480			647	
Approach Delay, s/veh		22.7			23.1			12.0			12.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	23.4	7.0	12.4	7.2	22.5	8.1	11.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.8	4.7	3.4	4.6	2.8	6.2	4.6	6.1				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.8	0.0	2.8	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay				16.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

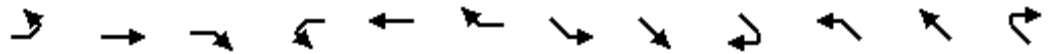
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖↗	↖↗		↖	↗	↖↗
Traffic Volume (veh/h)	59	192	60	53	151	37	41	341	36	26	528	47
Future Volume (veh/h)	59	192	60	53	151	37	41	341	36	26	528	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	202	63	56	159	39	43	359	38	27	556	49
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	375	114	98	254	215	158	1851	192	56	1817	159
Arrive On Green	0.06	0.14	0.14	0.06	0.14	0.14	0.05	0.39	0.39	0.03	0.38	0.38
Sat Flow, veh/h	1781	2686	815	1781	1870	1585	3456	4698	488	1781	4782	417
Grp Volume(v), veh/h	62	132	133	56	159	39	43	258	139	27	394	211
Grp Sat Flow(s),veh/h/ln	1781	1777	1724	1781	1870	1585	1728	1702	1782	1781	1702	1795
Q Serve(g_s), s	1.6	3.3	3.4	1.5	3.8	1.0	0.6	2.4	2.4	0.7	3.8	3.9
Cycle Q Clear(g_c), s	1.6	3.3	3.4	1.5	3.8	1.0	0.6	2.4	2.4	0.7	3.8	3.9
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.27	1.00		0.23
Lane Grp Cap(c), veh/h	105	248	241	98	254	215	158	1341	702	56	1293	682
V/C Ratio(X)	0.59	0.53	0.55	0.57	0.63	0.18	0.27	0.19	0.20	0.48	0.30	0.31
Avail Cap(c_a), veh/h	188	675	655	188	711	602	365	1341	702	188	1293	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	18.9	19.0	21.8	19.3	18.1	21.9	9.4	9.4	22.6	10.3	10.3
Incr Delay (d2), s/veh	5.2	1.8	2.0	5.1	2.5	0.4	0.9	0.3	0.6	6.2	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.2	1.3	0.7	1.5	0.3	0.2	0.7	0.8	0.3	1.1	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	20.7	21.0	27.0	21.9	18.5	22.8	9.7	10.1	28.8	10.9	11.5
LnGrp LOS	C	C	C	C	C	B	C	A	B	C	B	B
Approach Vol, veh/h		327			254			440			632	
Approach Delay, s/veh		22.0			22.5			11.1			11.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	23.2	7.1	11.1	6.7	22.5	7.3	10.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.7	4.4	3.5	5.4	2.6	5.9	3.6	5.8				
Green Ext Time (p_c), s	0.0	1.8	0.0	1.0	0.0	2.8	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			15.3									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

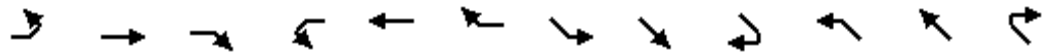
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	31	24	46	37	24	37	18	533	16	21	532	20
Future Volume (veh/h)	31	24	46	37	24	37	18	533	16	21	532	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	26	50	40	26	40	20	579	17	23	578	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	48	475	97	41	475	42	839	711	47	808	31
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.02	0.45	0.45	0.03	0.45	0.45
Sat Flow, veh/h	1	159	1585	1	136	1585	1781	1870	1585	1781	1790	68
Grp Volume(v), veh/h	60	0	50	66	0	40	20	579	17	23	0	600
Grp Sat Flow(s),veh/h/ln	160	0	1585	137	0	1585	1781	1870	1585	1781	0	1858
Q Serve(g_s), s	0.0	0.0	1.4	0.0	0.0	1.1	0.7	14.8	0.4	0.8	0.0	15.7
Cycle Q Clear(g_c), s	18.0	0.0	1.4	18.0	0.0	1.1	0.7	14.8	0.4	0.8	0.0	15.7
Prop In Lane	0.57		1.00	0.61		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	142	0	475	137	0	475	42	839	711	47	0	839
V/C Ratio(X)	0.42	0.00	0.11	0.48	0.00	0.08	0.48	0.69	0.02	0.49	0.00	0.72
Avail Cap(c_a), veh/h	142	0	476	137	0	476	148	839	711	148	0	839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	15.2	19.4	0.0	15.1	28.9	13.2	9.2	28.8	0.0	13.3
Incr Delay (d2), s/veh	2.0	0.0	0.1	2.6	0.0	0.1	8.1	4.6	0.1	7.6	0.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.5	0.7	0.0	0.4	0.4	6.5	0.1	0.4	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	0.0	15.3	21.9	0.0	15.2	37.0	17.8	9.3	36.4	0.0	18.5
LnGrp LOS	B	A	B	C	A	B	D	B	A	D	A	B
Approach Vol, veh/h		110			106			616				623
Approach Delay, s/veh		17.5			19.4			18.2				19.2
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	31.6		22.5	6.1	31.4		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.7	17.7		20.0	2.8	16.8		20.0				
Green Ext Time (p_c), s	0.0	2.0		0.0	0.0	2.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			18.7									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	17	15	38	25	24	28	14	446	28	21	561	17
Future Volume (veh/h)	17	15	38	25	24	28	14	446	28	21	561	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	16	41	27	26	30	15	485	30	23	610	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	71	181	112	75	181	33	1186	1005	47	1161	34
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.02	0.63	0.63	0.03	0.64	0.64
Sat Flow, veh/h	190	617	1585	186	658	1585	1781	1870	1585	1781	1807	53
Grp Volume(v), veh/h	34	0	41	53	0	30	15	485	30	23	0	628
Grp Sat Flow(s),veh/h/ln	806	0	1585	844	0	1585	1781	1870	1585	1781	0	1861
Q Serve(g_s), s	0.1	0.0	1.4	0.1	0.0	1.0	0.5	7.7	0.4	0.8	0.0	10.9
Cycle Q Clear(g_c), s	5.4	0.0	1.4	5.4	0.0	1.0	0.5	7.7	0.4	0.8	0.0	10.9
Prop In Lane	0.53		1.00	0.51		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	184	0	181	187	0	181	33	1186	1005	47	0	1195
V/C Ratio(X)	0.18	0.00	0.23	0.28	0.00	0.17	0.46	0.41	0.03	0.49	0.00	0.53
Avail Cap(c_a), veh/h	472	0	476	477	0	476	148	1186	1005	148	0	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.1	0.0	24.2	24.3	0.0	24.0	29.1	5.4	4.1	28.8	0.0	5.8
Incr Delay (d2), s/veh	0.5	0.0	0.6	0.8	0.0	0.4	9.6	1.0	0.1	7.6	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5	0.7	0.0	0.4	0.3	2.6	0.1	0.4	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	0.0	24.8	25.1	0.0	24.4	38.7	6.5	4.1	36.4	0.0	7.5
LnGrp LOS	C	A	C	C	A	C	D	A	A	D	A	A
Approach Vol, veh/h		75			83			530			651	
Approach Delay, s/veh		24.7			24.9			7.3			8.5	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	42.9		11.4	6.1	42.5		11.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	2.5	12.9		7.4	2.8	9.7		7.4				
Green Ext Time (p_c), s	0.0	3.3		0.1	0.0	2.8		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	52	85	131	52	85	116	487	178	37	471	89
Future Volume (veh/h)	33	52	85	131	52	85	116	487	178	37	471	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	57	92	142	57	92	126	529	193	40	512	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	341	289	314	117	189	476	1033	875	467	794	150
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.07	0.55	0.55	0.04	0.52	0.52
Sat Flow, veh/h	1239	1870	1585	1239	644	1039	1781	1870	1585	1781	1529	290
Grp Volume(v), veh/h	36	57	92	142	0	149	126	529	193	40	0	609
Grp Sat Flow(s),veh/h/ln	1239	1870	1585	1239	0	1683	1781	1870	1585	1781	0	1818
Q Serve(g_s), s	1.6	1.5	3.0	6.6	0.0	4.8	1.9	10.6	3.7	0.6	0.0	14.5
Cycle Q Clear(g_c), s	6.4	1.5	3.0	8.1	0.0	4.8	1.9	10.6	3.7	0.6	0.0	14.5
Prop In Lane	1.00		1.00	1.00		0.62	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	247	341	289	314	0	307	476	1033	875	467	0	945
V/C Ratio(X)	0.15	0.17	0.32	0.45	0.00	0.49	0.26	0.51	0.22	0.09	0.00	0.64
Avail Cap(c_a), veh/h	393	561	476	460	0	505	497	1033	875	543	0	945
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	0.77	0.77	0.77	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.9	20.7	21.3	24.1	0.0	22.0	7.4	8.4	6.9	6.6	0.0	10.4
Incr Delay (d2), s/veh	0.3	0.2	0.6	1.0	0.0	1.2	0.2	1.4	0.4	0.1	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.7	1.1	1.9	0.0	1.9	0.6	3.8	1.1	0.2	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	20.9	21.9	25.1	0.0	23.2	7.7	9.8	7.3	6.7	0.0	13.8
LnGrp LOS	C	C	C	C	A	C	A	A	A	A	A	B
Approach Vol, veh/h		185			291			848			649	
Approach Delay, s/veh		22.2			24.1			8.9			13.4	
Approach LOS		C			C			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	37.6		15.4	8.9	35.7		15.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	2.6	12.6		8.4	3.9	16.5		10.1				
Green Ext Time (p_c), s	0.0	3.1		0.4	0.0	2.4		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				13.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	44	120	111	85	69	147	475	127	34	404	66
Future Volume (veh/h)	52	44	120	111	85	69	147	475	127	34	404	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	48	130	121	92	75	160	516	138	37	439	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	327	277	305	167	136	558	1051	891	496	819	134
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.08	0.56	0.56	0.04	0.52	0.52
Sat Flow, veh/h	1218	1870	1585	1206	953	777	1781	1870	1585	1781	1567	257
Grp Volume(v), veh/h	57	48	130	121	0	167	160	516	138	37	0	511
Grp Sat Flow(s),veh/h/ln	1218	1870	1585	1206	0	1730	1781	1870	1585	1781	0	1824
Q Serve(g_s), s	2.7	1.3	4.4	5.7	0.0	5.3	2.4	10.0	2.5	0.6	0.0	11.1
Cycle Q Clear(g_c), s	8.0	1.3	4.4	7.0	0.0	5.3	2.4	10.0	2.5	0.6	0.0	11.1
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	226	327	277	305	0	303	558	1051	891	496	0	953
V/C Ratio(X)	0.25	0.15	0.47	0.40	0.00	0.55	0.29	0.49	0.15	0.07	0.00	0.54
Avail Cap(c_a), veh/h	378	561	476	456	0	519	583	1051	891	576	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.86	0.86	0.86	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	21.0	22.3	23.9	0.0	22.6	6.5	8.0	6.3	6.4	0.0	9.5
Incr Delay (d2), s/veh	0.6	0.2	1.2	0.8	0.0	1.6	0.2	1.4	0.3	0.1	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.6	1.7	1.6	0.0	2.2	0.7	3.6	0.7	0.2	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	21.2	23.5	24.8	0.0	24.2	6.8	9.4	6.6	6.5	0.0	11.7
LnGrp LOS	C	C	C	C	A	C	A	A	A	A	A	B
Approach Vol, veh/h		235			288			814			548	
Approach Delay, s/veh		23.8			24.4			8.4			11.3	
Approach LOS		C			C			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	38.2		15.0	9.2	35.9		15.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.5	23.0		18.0				
Max Q Clear Time (g_c+I1), s	2.6	12.0		10.0	4.4	13.1		9.0				
Green Ext Time (p_c), s	0.0	3.0		0.5	0.0	2.5		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				13.6								
HCM 6th LOS				B								

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑	↖	↗	↑	↖		↕			↕	
Traffic Vol, veh/h	33	85	55	14	87	42	60	140	33	30	146	28
Future Vol, veh/h	33	85	55	14	87	42	60	140	33	30	146	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	92	60	15	95	46	65	152	36	33	159	30
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	9.7	9.8	12.6	11.8
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	26%	100%	0%	0%	100%	0%	0%	15%
Vol Thru, %	60%	0%	100%	0%	0%	100%	0%	72%
Vol Right, %	14%	0%	0%	100%	0%	0%	100%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	233	33	85	55	14	87	42	204
LT Vol	60	33	0	0	14	0	0	30
Through Vol	140	0	85	0	0	87	0	146
RT Vol	33	0	0	55	0	0	42	28
Lane Flow Rate	253	36	92	60	15	95	46	222
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.41	0.067	0.16	0.092	0.029	0.165	0.071	0.359
Departure Headway (Hd)	5.826	6.737	6.226	5.511	6.79	6.279	5.563	5.822
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	618	532	576	649	527	571	643	619
Service Time	3.56	4.48	3.969	3.253	4.534	4.022	3.307	3.556
HCM Lane V/C Ratio	0.409	0.068	0.16	0.092	0.028	0.166	0.072	0.359
HCM Control Delay	12.6	10	10.2	8.8	9.7	10.3	8.7	11.8
HCM Lane LOS	B	A	B	A	A	B	A	B
HCM 95th-tile Q	2	0.2	0.6	0.3	0.1	0.6	0.2	1.6

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	45	91	65	27	142	56	49	151	23	44	161	41
Future Vol, veh/h	45	91	65	27	142	56	49	151	23	44	161	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	99	71	29	154	61	53	164	25	48	175	45
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10.4	11.1	13.8	14.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	22%	100%	0%	0%	100%	0%	0%	18%
Vol Thru, %	68%	0%	100%	0%	0%	100%	0%	65%
Vol Right, %	10%	0%	0%	100%	0%	0%	100%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	45	91	65	27	142	56	246
LT Vol	49	45	0	0	27	0	0	44
Through Vol	151	0	91	0	0	142	0	161
RT Vol	23	0	0	65	0	0	56	41
Lane Flow Rate	242	49	99	71	29	154	61	267
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.426	0.097	0.182	0.116	0.058	0.281	0.099	0.462
Departure Headway (Hd)	6.326	7.125	6.612	5.894	7.075	6.562	5.844	6.223
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	567	501	540	604	504	545	609	578
Service Time	4.093	4.901	4.387	3.668	4.848	4.335	3.616	3.988
HCM Lane V/C Ratio	0.427	0.098	0.183	0.118	0.058	0.283	0.1	0.462
HCM Control Delay	13.8	10.7	10.9	9.4	10.3	11.9	9.3	14.3
HCM Lane LOS	B	B	B	A	B	B	A	B
HCM 95th-tile Q	2.1	0.3	0.7	0.4	0.2	1.1	0.3	2.4

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	2	74	4	1	5	58	396	4	2	325	95
Future Volume (veh/h)	97	2	74	4	1	5	58	396	4	2	325	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	2	80	4	1	5	63	430	4	2	353	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	167	141	18	5	20	732	2545	24	738	2507	1118
Arrive On Green	0.09	0.09	0.09	0.01	0.01	0.01	0.71	0.71	0.71	0.71	0.71	0.71
Sat Flow, veh/h	1781	1870	1585	1439	360	1585	935	3608	34	954	3554	1585
Grp Volume(v), veh/h	105	2	80	5	0	5	63	212	222	2	353	103
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1798	0	1585	935	1777	1864	954	1777	1585
Q Serve(g_s), s	4.0	0.1	3.4	0.2	0.0	0.2	1.7	2.8	2.8	0.0	2.3	1.4
Cycle Q Clear(g_c), s	4.0	0.1	3.4	0.2	0.0	0.2	3.9	2.8	2.8	2.8	2.3	1.4
Prop In Lane	1.00		1.00	0.80		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	159	167	141	23	0	20	732	1253	1315	738	2507	1118
V/C Ratio(X)	0.66	0.01	0.57	0.22	0.00	0.25	0.09	0.17	0.17	0.00	0.14	0.09
Avail Cap(c_a), veh/h	471	494	419	462	0	408	732	1253	1315	738	2507	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	30.9	29.1	30.6	34.2	0.0	34.2	4.0	3.4	3.4	3.9	3.4	3.2
Incr Delay (d2), s/veh	4.7	0.0	3.5	4.8	0.0	6.4	0.2	0.3	0.3	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	1.4	0.1	0.0	0.1	0.2	0.7	0.7	0.0	0.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	29.1	34.1	39.0	0.0	40.6	4.2	3.7	3.7	3.9	3.5	3.4
LnGrp LOS	D	C	C	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		187			10			497			458	
Approach Delay, s/veh		34.8			39.8			3.8			3.5	
Approach LOS		C			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		53.9		10.7		53.9		5.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.5		20.0		18.0				
Max Q Clear Time (g_c+I1), s		5.9		6.0		4.8		2.2				
Green Ext Time (p_c), s		2.3		0.4		2.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			9.0									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	3	78	3	0	5	55	321	1	5	393	95
Future Volume (veh/h)	83	3	78	3	0	5	55	321	1	5	393	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	3	85	3	0	5	60	349	1	5	427	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	156	132	18	0	16	692	2593	7	807	2535	1131
Arrive On Green	0.08	0.08	0.08	0.01	0.00	0.01	0.71	0.71	0.71	0.71	0.71	0.71
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	874	3635	10	1031	3554	1585
Grp Volume(v), veh/h	90	3	85	3	0	5	60	171	179	5	427	103
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	874	1777	1868	1031	1777	1585
Q Serve(g_s), s	3.4	0.1	3.6	0.1	0.0	0.2	1.7	2.1	2.1	0.1	2.7	1.4
Cycle Q Clear(g_c), s	3.4	0.1	3.6	0.1	0.0	0.2	4.4	2.1	2.1	2.2	2.7	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	149	156	132	18	0	16	692	1268	1333	807	2535	1131
V/C Ratio(X)	0.61	0.02	0.64	0.16	0.00	0.31	0.09	0.13	0.13	0.01	0.17	0.09
Avail Cap(c_a), veh/h	471	494	419	458	0	408	692	1268	1333	807	2535	1131
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	31.0	29.4	31.1	34.3	0.0	34.4	4.0	3.2	3.2	3.5	3.3	3.1
Incr Delay (d2), s/veh	3.9	0.0	5.1	4.1	0.0	10.2	0.2	0.2	0.2	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.5	0.1	0.0	0.1	0.2	0.5	0.5	0.0	0.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	29.5	36.2	38.4	0.0	44.6	4.2	3.4	3.4	3.5	3.4	3.2
LnGrp LOS	C	C	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		178			8			410			535	
Approach Delay, s/veh		35.4			42.3			3.5			3.4	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.4		10.3		54.4		5.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.5		20.0		18.0				
Max Q Clear Time (g_c+I1), s		6.4		5.6		4.7		2.2				
Green Ext Time (p_c), s		1.8		0.4		2.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			8.7									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 22: Arrow Hwy & Indian Hill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗	↘	↘	↗	↘	↘	↗	↘
Traffic Volume (veh/h)	103	567	167	161	366	61	113	564	375	134	472	64
Future Volume (veh/h)	103	567	167	161	366	61	113	564	375	134	472	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	616	182	175	398	66	123	613	408	146	513	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	782	349	214	925	412	150	1085	484	173	1000	136
Arrive On Green	0.08	0.22	0.22	0.12	0.26	0.26	0.08	0.31	0.31	0.10	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3143	427
Grp Volume(v), veh/h	112	616	182	175	398	66	123	613	408	146	289	294
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1793
Q Serve(g_s), s	4.3	11.4	7.1	6.7	6.5	2.3	4.8	10.1	16.9	5.6	9.3	9.4
Cycle Q Clear(g_c), s	4.3	11.4	7.1	6.7	6.5	2.3	4.8	10.1	16.9	5.6	9.3	9.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	143	782	349	214	925	412	150	1085	484	173	565	571
V/C Ratio(X)	0.78	0.79	0.52	0.82	0.43	0.16	0.82	0.57	0.84	0.84	0.51	0.51
Avail Cap(c_a), veh/h	181	914	408	216	985	439	150	1085	484	173	565	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	31.6	25.7	24.0	30.0	21.6	20.0	31.5	20.4	22.7	31.1	19.4	19.5
Incr Delay (d2), s/veh	15.8	4.0	1.2	19.5	0.3	0.2	28.8	2.1	16.3	24.5	2.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.0	2.6	3.9	2.6	0.8	3.2	4.3	8.0	3.5	4.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	29.7	25.3	49.6	21.9	20.2	60.3	22.5	39.0	55.6	22.0	22.0
LnGrp LOS	D	C	C	D	C	C	E	C	D	E	C	C
Approach Vol, veh/h		910			639			1144			729	
Approach Delay, s/veh		31.0			29.3			32.5			28.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	25.9	12.9	19.9	10.4	26.8	10.1	22.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.8	18.7	8.5	18.0	5.9	19.6	7.1	19.4				
Max Q Clear Time (g_c+I1), s	7.6	18.9	8.7	13.4	6.8	11.4	6.3	8.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.0	0.0	2.3	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay				30.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 22: Arrow Hwy & Indian Hill Blvd

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	947	161	161	456	76	143	466	438	131	420	63
Future Volume (veh/h)	96	947	161	161	456	76	143	466	438	131	420	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	1029	175	175	496	83	155	507	476	142	457	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	1111	495	205	1256	560	188	975	435	174	827	122
Arrive On Green	0.07	0.31	0.31	0.23	0.71	0.71	0.11	0.27	0.27	0.10	0.27	0.27
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3105	460
Grp Volume(v), veh/h	104	1029	175	175	496	83	155	507	476	142	260	265
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1788
Q Serve(g_s), s	5.2	25.2	7.7	8.5	5.1	1.5	7.7	10.9	24.7	7.0	11.3	11.5
Cycle Q Clear(g_c), s	5.2	25.2	7.7	8.5	5.1	1.5	7.7	10.9	24.7	7.0	11.3	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	133	1111	495	205	1256	560	188	975	435	174	473	476
V/C Ratio(X)	0.78	0.93	0.35	0.85	0.40	0.15	0.82	0.52	1.09	0.82	0.55	0.56
Avail Cap(c_a), veh/h	234	1125	502	228	1256	560	216	975	435	188	473	476
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	40.9	29.9	23.9	33.9	9.3	8.8	39.4	27.6	32.7	39.8	28.4	28.4
Incr Delay (d2), s/veh	9.6	12.8	0.4	21.8	0.2	0.1	19.9	2.0	71.1	19.7	3.9	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	12.3	2.9	4.4	1.6	0.5	4.3	4.8	17.7	4.0	5.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	42.7	24.3	55.7	9.5	8.9	59.3	29.6	103.7	59.5	32.3	32.4
LnGrp LOS	D	D	C	E	A	A	E	C	F	E	C	C
Approach Vol, veh/h		1308			754			1138				667
Approach Delay, s/veh		40.9			20.1			64.7				38.1
Approach LOS		D			C			E				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	29.2	14.9	32.6	14.0	28.5	11.2	36.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	22.5	11.5	28.5	10.9	21.1	11.8	28.2				
Max Q Clear Time (g_c+I1), s	9.0	26.7	10.5	27.2	9.7	13.5	7.2	7.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	1.9	0.1	3.6				
Intersection Summary												
HCM 6th Ctrl Delay			43.3									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	938	28	14	492	79	23	53	26	80	59	82
Future Volume (veh/h)	74	938	28	14	492	79	23	53	26	80	59	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	1020	30	15	535	86	25	58	28	87	64	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	343	1279	38	216	1113	178	208	443	187	751	817	693
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	803	3525	104	537	3067	491	252	1014	427	1311	1870	1585
Grp Volume(v), veh/h	80	514	536	15	309	312	111	0	0	87	64	89
Grp Sat Flow(s),veh/h/ln	803	1777	1852	537	1777	1782	1693	0	0	1311	1870	1585
Q Serve(g_s), s	3.8	11.7	11.7	1.2	6.0	6.1	0.0	0.0	0.0	0.0	0.9	1.5
Cycle Q Clear(g_c), s	9.9	11.7	11.7	12.8	6.0	6.1	1.7	0.0	0.0	1.3	0.9	1.5
Prop In Lane	1.00		0.06	1.00		0.28	0.23		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	343	645	672	216	645	647	838	0	0	751	817	693
V/C Ratio(X)	0.23	0.80	0.80	0.07	0.48	0.48	0.13	0.00	0.00	0.12	0.08	0.13
Avail Cap(c_a), veh/h	373	711	741	236	711	713	838	0	0	751	817	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	0.91	0.91	0.91	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	12.8	12.8	18.6	11.1	11.1	7.6	0.0	0.0	7.5	7.4	7.6
Incr Delay (d2), s/veh	0.2	3.9	3.7	0.1	0.5	0.5	0.3	0.0	0.0	0.3	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.4	4.5	0.1	2.0	2.0	0.6	0.0	0.0	0.4	0.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	16.7	16.6	18.7	11.6	11.6	7.9	0.0	0.0	7.8	7.6	7.9
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1130			636			111			240	
Approach Delay, s/veh		16.5			11.7			7.9			7.8	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.2		20.8		24.2		20.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		3.7		13.7		3.5		14.8				
Green Ext Time (p_c), s		0.4		2.7		0.7		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				13.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕		↖	↗	↖
Traffic Volume (veh/h)	59	1377	30	26	574	55	22	52	36	89	78	72
Future Volume (veh/h)	59	1377	30	26	574	55	22	52	36	89	78	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	1497	33	28	624	60	24	57	39	97	85	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	408	1772	39	165	1633	157	148	323	192	600	657	557
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	757	3555	78	340	3276	315	215	920	546	1300	1870	1585
Grp Volume(v), veh/h	64	747	783	28	338	346	120	0	0	97	85	78
Grp Sat Flow(s),veh/h/ln	757	1777	1856	340	1777	1814	1681	0	0	1300	1870	1585
Q Serve(g_s), s	3.4	21.8	21.9	4.7	7.1	7.1	0.0	0.0	0.0	0.0	1.9	2.0
Cycle Q Clear(g_c), s	10.5	21.8	21.9	26.6	7.1	7.1	2.8	0.0	0.0	2.2	1.9	2.0
Prop In Lane	1.00		0.04	1.00		0.17	0.20		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	408	886	925	165	886	904	663	0	0	600	657	557
V/C Ratio(X)	0.16	0.84	0.85	0.17	0.38	0.38	0.18	0.00	0.00	0.16	0.13	0.14
Avail Cap(c_a), veh/h	428	933	975	174	933	952	663	0	0	600	657	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.39	0.39	0.39	0.86	0.86	0.86	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	13.0	13.0	24.6	9.3	9.3	13.5	0.0	0.0	13.3	13.2	13.3
Incr Delay (d2), s/veh	0.1	2.8	2.8	0.4	0.2	0.2	0.6	0.0	0.0	0.6	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	7.8	8.1	0.4	2.3	2.4	1.1	0.0	0.0	0.9	0.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.7	15.9	15.8	25.0	9.6	9.6	14.1	0.0	0.0	13.9	13.6	13.8
LnGrp LOS	B	B	B	C	A	A	B	A	A	B	B	B
Approach Vol, veh/h		1594			712			120			260	
Approach Delay, s/veh		15.7			10.2			14.1			13.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.6		34.4		25.6		34.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		4.8		23.9		4.2		28.6				
Green Ext Time (p_c), s		0.5		5.6		0.9		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				14.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↗↘		↗	↗	↗
Traffic Volume (veh/h)	169	811	39	39	355	46	76	217	68	50	180	119
Future Volume (veh/h)	169	811	39	39	355	46	76	217	68	50	180	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	184	882	42	42	386	50	83	236	74	54	196	129
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	1019	49	71	662	85	106	969	296	83	651	552
Arrive On Green	0.13	0.30	0.30	0.04	0.21	0.21	0.06	0.36	0.36	0.05	0.35	0.35
Sat Flow, veh/h	1781	3453	164	1781	3166	407	1781	2680	820	1781	1870	1585
Grp Volume(v), veh/h	184	454	470	42	215	221	83	155	155	54	196	129
Grp Sat Flow(s),veh/h/ln	1781	1777	1841	1781	1777	1797	1781	1777	1723	1781	1870	1585
Q Serve(g_s), s	7.0	16.9	16.9	1.6	7.6	7.7	3.2	4.3	4.4	2.1	5.3	4.0
Cycle Q Clear(g_c), s	7.0	16.9	16.9	1.6	7.6	7.7	3.2	4.3	4.4	2.1	5.3	4.0
Prop In Lane	1.00		0.09	1.00		0.23	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	224	524	543	71	371	376	106	642	623	83	651	552
V/C Ratio(X)	0.82	0.87	0.87	0.59	0.58	0.59	0.78	0.24	0.25	0.65	0.30	0.23
Avail Cap(c_a), veh/h	242	569	589	130	457	462	140	642	623	127	651	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	23.4	23.4	33.0	24.9	25.0	32.5	15.6	15.7	32.8	16.6	16.2
Incr Delay (d2), s/veh	12.3	8.3	8.0	7.6	1.4	1.5	18.3	0.9	1.0	8.4	1.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	7.4	7.6	0.8	3.1	3.2	1.9	1.7	1.8	1.1	2.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	31.6	31.4	40.7	26.4	26.4	50.8	16.5	16.6	41.2	17.8	17.2
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		1108			478			393			379	
Approach Delay, s/veh		33.2			27.6			23.8			20.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	29.8	7.3	25.2	8.7	28.9	13.3	19.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.5	5.1	22.4	5.5	19.0	9.5	18.0				
Max Q Clear Time (g_c+I1), s	4.1	6.4	3.6	18.9	5.2	7.3	9.0	9.7				
Green Ext Time (p_c), s	0.0	1.4	0.0	1.7	0.0	1.2	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay				28.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	1241	45	39	424	70	84	248	64	79	233	147
Future Volume (veh/h)	187	1241	45	39	424	70	84	248	64	79	233	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	203	1349	49	42	461	76	91	270	70	86	253	160
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	1418	51	68	934	153	116	756	192	110	498	422
Arrive On Green	0.14	0.41	0.41	0.04	0.31	0.31	0.07	0.27	0.27	0.06	0.27	0.27
Sat Flow, veh/h	1781	3497	127	1781	3056	501	1781	2805	714	1781	1870	1585
Grp Volume(v), veh/h	203	685	713	42	267	270	91	169	171	86	253	160
Grp Sat Flow(s),veh/h/ln	1781	1777	1848	1781	1777	1780	1781	1777	1742	1781	1870	1585
Q Serve(g_s), s	8.9	29.8	29.9	1.9	9.8	9.9	4.0	6.1	6.4	3.8	9.2	6.6
Cycle Q Clear(g_c), s	8.9	29.8	29.9	1.9	9.8	9.9	4.0	6.1	6.4	3.8	9.2	6.6
Prop In Lane	1.00		0.07	1.00		0.28	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	245	721	749	68	543	544	116	479	470	110	498	422
V/C Ratio(X)	0.83	0.95	0.95	0.62	0.49	0.50	0.78	0.35	0.36	0.78	0.51	0.38
Avail Cap(c_a), veh/h	383	724	753	114	543	544	118	479	470	118	498	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	23.0	23.0	37.9	22.7	22.7	36.8	23.6	23.7	37.0	24.9	24.0
Incr Delay (d2), s/veh	4.4	13.5	13.5	9.0	0.7	0.7	27.7	2.0	2.2	26.4	3.7	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	13.5	14.0	0.9	3.9	3.9	2.6	2.7	2.8	2.5	4.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	36.5	36.5	46.9	23.4	23.4	64.5	25.6	25.8	63.3	28.6	26.5
LnGrp LOS	D	D	D	D	C	C	E	C	C	E	C	C
Approach Vol, veh/h		1601			579			431			499	
Approach Delay, s/veh		36.7			25.1			33.9			33.9	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	26.1	7.5	36.9	9.7	25.8	15.5	29.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.3	19.0	5.1	32.6	5.3	19.0	17.2	20.5				
Max Q Clear Time (g_c+I1), s	5.8	8.4	3.9	31.9	6.0	11.2	10.9	11.9				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.5	0.0	1.3	0.3	2.0				
Intersection Summary												
HCM 6th Ctrl Delay				33.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔		↔	↑↑	↔	↔	↑↑	↔
Traffic Volume (veh/h)	29	11	71	6	1	4	70	386	65	98	354	36
Future Volume (veh/h)	29	11	71	6	1	4	70	386	65	98	354	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	12	77	7	1	4	76	420	71	107	385	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	23	148	16	18	73	98	2075	925	136	2151	960
Arrive On Green	0.06	0.11	0.11	0.01	0.06	0.06	0.05	0.58	0.58	0.08	0.61	0.61
Sat Flow, veh/h	1781	218	1400	1781	327	1308	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	32	0	89	7	0	5	76	420	71	107	385	39
Grp Sat Flow(s),veh/h/ln	1781	0	1618	1781	0	1635	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.4	0.0	4.2	0.3	0.0	0.2	3.4	4.5	1.6	4.7	3.8	0.8
Cycle Q Clear(g_c), s	1.4	0.0	4.2	0.3	0.0	0.2	3.4	4.5	1.6	4.7	3.8	0.8
Prop In Lane	1.00		0.87	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	0	171	16	0	91	98	2075	925	136	2151	960
V/C Ratio(X)	0.31	0.00	0.52	0.44	0.00	0.05	0.78	0.20	0.08	0.79	0.18	0.04
Avail Cap(c_a), veh/h	401	0	627	111	0	368	145	2075	925	169	2151	960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	36.1	0.0	33.8	39.4	0.0	35.8	37.3	7.9	7.3	36.3	7.0	6.4
Incr Delay (d2), s/veh	1.6	0.0	2.4	17.6	0.0	0.2	14.4	0.2	0.2	16.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.7	0.2	0.0	0.1	1.8	1.5	0.5	2.6	1.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	0.0	36.3	57.0	0.0	36.0	51.7	8.1	7.4	52.8	7.2	6.5
LnGrp LOS	D	A	D	E	A	D	D	A	A	D	A	A
Approach Vol, veh/h		121			12			567				531
Approach Delay, s/veh		36.7			48.3			13.8				16.3
Approach LOS		D			D			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	51.2	5.2	13.0	8.9	52.9	9.2	9.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.6	18.4	5.0	31.0	6.5	19.5	18.0	18.0				
Max Q Clear Time (g_c+I1), s	6.7	6.5	2.3	6.2	5.4	5.8	3.4	2.2				
Green Ext Time (p_c), s	0.0	2.2	0.0	0.5	0.0	2.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	31	0	68	95	16	63	55	374	2	3	339	38
Future Volume (veh/h)	31	0	68	95	16	63	55	374	2	3	339	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	0	74	103	17	68	60	407	2	3	368	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	0	117	132	28	112	82	2214	988	7	2065	921
Arrive On Green	0.06	0.00	0.07	0.07	0.09	0.09	0.05	0.62	0.62	0.00	0.58	0.58
Sat Flow, veh/h	1781	0	1585	1781	327	1308	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	34	0	74	103	0	85	60	407	2	3	368	41
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1635	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.5	0.0	3.6	4.5	0.0	4.0	2.7	3.9	0.0	0.1	3.9	0.9
Cycle Q Clear(g_c), s	1.5	0.0	3.6	4.5	0.0	4.0	2.7	3.9	0.0	0.1	3.9	0.9
Prop In Lane	1.00		1.00	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	0	117	132	0	140	82	2214	988	7	2065	921
V/C Ratio(X)	0.31	0.00	0.63	0.78	0.00	0.60	0.73	0.18	0.00	0.42	0.18	0.04
Avail Cap(c_a), veh/h	401	0	509	229	0	368	156	2214	988	111	2065	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	35.9	0.0	36.0	36.4	0.0	35.3	37.7	6.4	5.7	39.7	7.8	7.2
Incr Delay (d2), s/veh	1.6	0.0	5.6	9.4	0.0	4.1	11.8	0.2	0.0	33.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.6	2.3	0.0	1.7	1.4	1.2	0.0	0.1	1.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	41.6	45.8	0.0	39.4	49.5	6.6	5.7	73.2	8.0	7.3
LnGrp LOS	D	A	D	D	A	D	D	A	A	E	A	A
Approach Vol, veh/h		108			188			469				412
Approach Delay, s/veh		40.3			42.9			12.1				8.4
Approach LOS		D			D			B				A
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	54.3	10.4	10.4	8.2	51.0	9.5	11.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	21.0	10.3	25.7	7.0	19.0	18.0	18.0				
Max Q Clear Time (g_c+I1), s	2.1	5.9	6.5	5.6	4.7	5.9	3.5	6.0				
Green Ext Time (p_c), s	0.0	2.1	0.1	0.3	0.0	1.9	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay				18.3								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	75	11	0	108	0	3
Future Vol, veh/h	75	11	0	108	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	12	0	117	0	3

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	47
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	-	0	1012
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	1012
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	1012	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-
HCM Control Delay (s)	8.6	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	82	0	1	67	0	47
Future Vol, veh/h	82	0	1	67	0	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	89	0	1	73	0	51

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	89	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-
Pot Cap-1 Maneuver	-	-	1504	-	0
Stage 1	-	-	-	-	0
Stage 2	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1504	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1015	-	-	1504	-
HCM Lane V/C Ratio	0.05	-	-	0.001	-
HCM Control Delay (s)	8.7	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	3	92	0	0	34
Future Vol, veh/h	0	3	92	0	0	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	100	0	0	37

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	50	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1008	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1008	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 1008	-
HCM Lane V/C Ratio	-	- 0.003	-
HCM Control Delay (s)	-	- 8.6	-
HCM Lane LOS	-	- A	-
HCM 95th %tile Q(veh)	-	- 0	-

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	47	24	0	0	118
Future Vol, veh/h	0	47	24	0	0	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	51	26	0	0	128

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	13	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	1064	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	1064	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 1064	-
HCM Lane V/C Ratio	-	- 0.048	-
HCM Control Delay (s)	-	- 8.6	-
HCM Lane LOS	-	- A	-
HCM 95th %tile Q(veh)	-	- 0.2	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	3	0	25	26	33
Future Vol, veh/h	0	3	0	25	26	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	0	26	27	35

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	31	-	0	0
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	878	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	878	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	878	-	-
HCM Lane V/C Ratio	-	0.004	-	-
HCM Control Delay (s)	-	9.1	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	47	1	27	29	0
Future Vol, veh/h	0	47	1	27	29	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	49	1	28	31	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	16	31	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-
Pot Cap-1 Maneuver	0	897	1117	-	-
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	897	1117	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1117	-	897	-	-
HCM Lane V/C Ratio	0.001	-	0.055	-	-
HCM Control Delay (s)	8.2	-	9.2	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↑	↗	↙	↕		↗	↕	↗
Traffic Volume (veh/h)	0	0	0	45	0	38	2	510	38	28	630	0
Future Volume (veh/h)	0	0	0	45	0	38	2	510	38	28	630	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	47	0	40	2	537	40	29	663	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	93	152	128	5	1694	126	121	2744	0
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.08	0.00	0.51	0.51	0.04	0.54	0.00
Sat Flow, veh/h	0	-64965	0	1781	1870	1585	1781	3353	249	3456	5274	0
Grp Volume(v), veh/h	0	0	0	47	0	40	2	284	293	29	663	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1825	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	0.8	0.0	3.4	3.4	0.3	2.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.9	0.0	0.8	0.0	3.4	3.4	0.3	2.5	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	93	152	128	5	898	922	121	2744	0
V/C Ratio(X)	0.00	0.00	0.00	0.51	0.00	0.31	0.40	0.32	0.32	0.24	0.24	0.00
Avail Cap(c_a), veh/h	0	945	0	250	945	801	250	898	922	485	2744	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.4	0.0	15.4	17.7	5.2	5.2	16.7	4.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.2	0.0	1.4	44.5	0.9	0.9	1.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.4	0.0	0.3	0.1	0.9	0.9	0.1	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	20.6	0.0	16.8	62.3	6.1	6.1	17.7	4.6	0.0
LnGrp LOS	A	A	A	C	A	B	E	A	A	B	A	A
Approach Vol, veh/h		0			87			579			692	
Approach Delay, s/veh		0.0			18.9			6.3			5.1	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	22.5	6.4	1.0	4.6	23.6		7.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	5.4	2.9	0.0	2.0	4.5		2.8				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.0	0.0	3.8		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			6.5									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

03/25/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↗	↖	↕		↖	↗	↕
Traffic Volume (veh/h)	0	1	0	63	1	33	0	538	51	22	761	0
Future Volume (veh/h)	0	1	0	63	1	33	0	538	51	22	761	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	0	66	1	35	0	566	54	23	801	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	78	0	114	401	340	4	1420	135	97	2907	0
Arrive On Green	0.00	0.04	0.00	0.06	0.21	0.21	0.00	0.43	0.43	0.03	0.57	0.00
Sat Flow, veh/h	0	1870	0	1781	1870	1585	1781	3279	312	3456	5274	0
Grp Volume(v), veh/h	0	1	0	66	1	35	0	306	314	23	801	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1814	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.7	0.0	4.9	4.9	0.3	3.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5	0.0	0.7	0.0	4.9	4.9	0.3	3.3	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	0	78	0	114	401	340	4	769	786	97	2907	0
V/C Ratio(X)	0.00	0.01	0.00	0.58	0.00	0.10	0.00	0.40	0.40	0.24	0.28	0.00
Avail Cap(c_a), veh/h	0	810	0	214	810	686	214	769	786	416	2907	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	19.1	0.0	18.9	12.8	13.1	0.0	8.1	8.1	19.8	4.6	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	4.5	0.0	0.1	0.0	1.5	1.5	1.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.2	0.0	1.7	1.7	0.1	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.2	0.0	23.5	12.8	13.3	0.0	9.6	9.6	21.0	4.8	0.0
LnGrp LOS	A	B	A	C	B	B	A	A	A	C	A	A
Approach Vol, veh/h		1			102			620			824	
Approach Delay, s/veh		19.2			19.8			9.6			5.3	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	22.5	7.2	6.2	0.0	28.2		13.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	6.9	3.5	2.0	0.0	5.3		2.7				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.0	0.0	4.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			8.0									
HCM 6th LOS			A									

APPENDIX E

HORIZON YEAR WITHOUT PROJECT LEVEL-OF-SERVICE WORKSHEET

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

04/04/2024



























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	737	277	407	1261	73	151	66	302	46	215	75
Future Volume (veh/h)	39	737	277	407	1261	73	151	66	302	46	215	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	801	301	442	1371	79	164	72	328	50	234	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	903	403	485	1733	773	332	522	465	204	763	260
Arrive On Green	0.04	0.25	0.25	0.27	0.49	0.49	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1064	1777	1585	985	2600	887
Grp Volume(v), veh/h	42	801	301	442	1371	79	164	72	328	50	158	158
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1064	1777	1585	985	1777	1711
Q Serve(g_s), s	1.7	16.3	13.1	18.0	24.1	2.0	10.6	2.2	13.8	3.6	5.2	5.4
Cycle Q Clear(g_c), s	1.7	16.3	13.1	18.0	24.1	2.0	16.0	2.2	13.8	17.4	5.2	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	69	903	403	485	1733	773	332	522	465	204	522	502
V/C Ratio(X)	0.61	0.89	0.75	0.91	0.79	0.10	0.49	0.14	0.70	0.25	0.30	0.31
Avail Cap(c_a), veh/h	119	924	412	534	1753	782	332	522	465	204	522	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.39	0.39	0.39	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	26.9	25.7	26.4	16.0	10.4	26.9	19.5	23.6	31.3	20.5	20.6
Incr Delay (d2), s/veh	8.3	10.3	7.2	8.9	1.0	0.0	4.2	0.4	7.1	2.9	1.5	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.8	5.5	8.4	8.9	0.7	3.0	1.0	5.8	1.0	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	37.2	32.9	35.3	17.0	10.4	31.1	20.0	30.7	34.2	22.0	22.3
LnGrp LOS	D	D	C	D	B	B	C	B	C	C	C	C
Approach Vol, veh/h		1144			1892			564			366	
Approach Delay, s/veh		36.3			21.0			29.4			23.8	
Approach LOS		D			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.5	24.9	23.6		26.5	7.4	41.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	22.5	19.5		19.5	5.0	37.0				
Max Q Clear Time (g_c+I1), s		18.0	20.0	18.3		19.4	3.7	26.1				
Green Ext Time (p_c), s		0.5	0.4	0.8		0.0	0.0	7.1				
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

























1: Indian Hill Blvd & Base Line Rd

04/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	1042	127	234	967	67	261	126	297	54	89	48
Future Volume (veh/h)	64	1042	127	234	967	67	261	126	297	54	89	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	1133	138	254	1051	73	284	137	323	59	97	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	1230	549	293	1625	725	429	527	470	212	679	342
Arrive On Green	0.05	0.35	0.35	0.16	0.46	0.46	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1239	1777	1585	932	2289	1151
Grp Volume(v), veh/h	70	1133	138	254	1051	73	284	137	323	59	74	75
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1239	1777	1585	932	1777	1663
Q Serve(g_s), s	2.7	21.4	4.4	9.7	16.0	1.8	15.3	4.1	12.6	4.2	2.1	2.3
Cycle Q Clear(g_c), s	2.7	21.4	4.4	9.7	16.0	1.8	17.7	4.1	12.6	16.8	2.1	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	95	1230	549	293	1625	725	429	527	470	212	527	494
V/C Ratio(X)	0.74	0.92	0.25	0.87	0.65	0.10	0.66	0.26	0.69	0.28	0.14	0.15
Avail Cap(c_a), veh/h	155	1244	555	293	1625	725	429	527	470	212	527	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.69	0.69	0.69	0.71	0.71	0.71	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	22.0	16.4	28.5	14.6	10.8	24.6	18.8	21.7	29.2	18.1	18.1
Incr Delay (d2), s/veh	10.7	11.2	0.2	17.2	0.6	0.0	5.6	0.8	5.7	3.3	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	10.1	1.5	5.3	5.8	0.6	4.9	1.7	5.1	1.1	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	33.1	16.6	45.7	15.3	10.8	30.3	19.6	27.5	32.4	18.6	18.8
LnGrp LOS	D	C	B	D	B	B	C	B	C	C	B	B
Approach Vol, veh/h		1341			1378			744			208	
Approach Delay, s/veh		32.0			20.6			27.1			22.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.3	16.0	28.7		25.3	8.2	36.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		20.5	11.5	24.5		20.5	6.1	29.9				
Max Q Clear Time (g_c+I1), s		19.7	11.7	23.4		18.8	4.7	18.0				
Green Ext Time (p_c), s		0.4	0.0	0.8		0.2	0.0	6.0				
Intersection Summary												
HCM 6th Ctrl Delay				26.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

04/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	985	326	151	1446	27	361	105	139	74	174	174
Future Volume (veh/h)	83	985	326	151	1446	27	361	105	139	74	174	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	1071	354	164	1572	29	392	114	151	80	189	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	1374	613	198	1560	696	361	659	558	426	659	558
Arrive On Green	0.06	0.39	0.39	0.11	0.44	0.44	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1005	1870	1585	1114	1870	1585
Grp Volume(v), veh/h	90	1071	354	164	1572	29	392	114	151	80	189	189
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1005	1870	1585	1114	1870	1585
Q Serve(g_s), s	4.5	23.8	15.9	8.1	39.5	0.9	25.1	3.8	6.1	4.8	6.6	7.9
Cycle Q Clear(g_c), s	4.5	23.8	15.9	8.1	39.5	0.9	31.7	3.8	6.1	8.6	6.6	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	1374	613	198	1560	696	361	659	558	426	659	558
V/C Ratio(X)	0.86	0.78	0.58	0.83	1.01	0.04	1.09	0.17	0.27	0.19	0.29	0.34
Avail Cap(c_a), veh/h	105	1374	613	234	1560	696	361	659	558	426	659	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	0.45	0.53	0.53	0.53	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	24.2	21.8	39.1	25.2	14.4	35.2	20.1	20.9	23.1	21.0	21.4
Incr Delay (d2), s/veh	25.8	1.3	0.6	10.8	18.5	0.0	66.2	0.4	0.9	1.0	1.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	9.8	5.8	4.1	19.5	0.3	14.6	1.7	2.4	1.3	2.9	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.8	25.6	22.4	50.0	43.8	14.4	101.5	20.5	21.8	24.0	22.1	23.1
LnGrp LOS	E	C	C	D	F	B	F	C	C	C	C	C
Approach Vol, veh/h		1515			1765			657			458	
Approach Delay, s/veh		27.4			43.9			69.1			22.8	
Approach LOS		C			D			E			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		36.2	14.5	39.3		36.2	9.8	44.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		31.7	11.8	33.0		31.7	5.3	39.5				
Max Q Clear Time (g_c+I1), s		33.7	10.1	25.8		10.6	6.5	41.5				
Green Ext Time (p_c), s		0.0	0.1	4.7		1.9	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				39.8								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	134	1068	173	213	1122	75	180	95	109	64	94	126
Future Volume (veh/h)	134	1068	173	213	1122	75	180	95	109	64	94	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	1161	188	232	1220	82	196	103	118	70	102	137
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	1273	568	275	1456	649	431	551	467	430	551	467
Arrive On Green	0.10	0.36	0.36	0.15	0.41	0.41	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1293	1870	1585	1291	1870	1585
Grp Volume(v), veh/h	146	1161	188	232	1220	82	196	103	118	70	102	137
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1293	1870	1585	1291	1870	1585
Q Serve(g_s), s	5.6	21.8	6.0	8.9	21.6	2.3	9.3	2.9	4.0	3.0	2.8	4.7
Cycle Q Clear(g_c), s	5.6	21.8	6.0	8.9	21.6	2.3	12.2	2.9	4.0	5.9	2.8	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1273	568	275	1456	649	431	551	467	430	551	467
V/C Ratio(X)	0.80	0.91	0.33	0.84	0.84	0.13	0.45	0.19	0.25	0.16	0.19	0.29
Avail Cap(c_a), veh/h	224	1295	577	293	1456	649	431	551	467	430	551	467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.35	0.35	0.63	0.63	0.63	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	21.4	16.4	28.8	18.6	12.9	23.0	18.4	18.8	20.6	18.4	19.1
Incr Delay (d2), s/veh	5.8	3.9	0.1	12.8	2.9	0.1	2.8	0.6	1.1	0.8	0.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	9.0	2.1	4.6	8.6	0.8	3.0	1.3	1.5	1.0	1.3	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	25.3	16.5	41.6	21.5	12.9	25.8	19.0	19.9	21.4	19.2	20.7
LnGrp LOS	D	C	B	D	C	B	C	B	B	C	B	C
Approach Vol, veh/h		1495			1534			417				309
Approach Delay, s/veh		25.3			24.1			22.4				20.3
Approach LOS		C			C			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.1	15.3	29.6		25.1	11.7	33.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	11.5	25.5		19.5	8.8	28.2				
Max Q Clear Time (g_c+I1), s		14.2	10.9	23.8		7.9	7.6	23.6				
Green Ext Time (p_c), s		0.8	0.0	1.3		0.9	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				24.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	54	837	250	520	1291	87	236	78	405	91	79	92
Future Volume (veh/h)	54	837	250	520	1291	87	236	78	405	91	79	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	910	272	565	1403	95	257	85	440	99	86	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1008	449	626	1490	664	438	471	399	384	438	391
Arrive On Green	0.05	0.28	0.28	0.18	0.42	0.42	0.06	0.25	0.25	0.06	0.25	0.25
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1777	1585
Grp Volume(v), veh/h	59	910	272	565	1403	95	257	85	440	99	86	100
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	2.6	19.7	11.9	12.8	30.3	3.0	5.1	2.9	20.1	3.3	3.1	4.1
Cycle Q Clear(g_c), s	2.6	19.7	11.9	12.8	30.3	3.0	5.1	2.9	20.1	3.3	3.1	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	1008	449	626	1490	664	438	471	399	384	438	391
V/C Ratio(X)	0.73	0.90	0.61	0.90	0.94	0.14	0.59	0.18	1.10	0.26	0.20	0.26
Avail Cap(c_a), veh/h	111	1031	460	626	1490	664	438	471	399	391	438	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	27.6	24.8	32.1	22.3	14.4	24.4	23.5	29.9	20.5	23.9	24.2
Incr Delay (d2), s/veh	9.2	7.4	1.4	16.3	12.2	0.1	2.0	0.8	75.1	0.4	1.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	8.6	4.2	6.4	13.3	1.0	1.8	1.3	15.3	1.3	1.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	35.0	26.2	48.4	34.5	14.5	26.3	24.3	105.1	20.8	24.9	25.8
LnGrp LOS	D	D	C	D	C	B	C	C	F	C	C	C
Approach Vol, veh/h		1241			2063			782			285	
Approach Delay, s/veh		33.7			37.4			70.4			23.8	
Approach LOS		C			D			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	24.6	19.0	27.2	9.6	24.2	8.2	38.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.3	14.5	23.2	5.1	19.2	5.0	32.7				
Max Q Clear Time (g_c+I1), s	5.3	22.1	14.8	21.7	7.1	6.1	4.6	32.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.0	0.7	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			41.3									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

04/04/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↑	
Traffic Volume (veh/h)	69	1010	211	493	1045	143	340	129	568	98	84	81
Future Volume (veh/h)	69	1010	211	493	1045	143	340	129	568	98	84	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	1098	229	536	1136	155	370	140	617	107	91	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	1125	502	557	1506	672	468	499	423	318	406	353
Arrive On Green	0.05	0.32	0.32	0.16	0.42	0.42	0.03	0.09	0.09	0.06	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1798	1567
Grp Volume(v), veh/h	75	1098	229	536	1136	155	370	140	617	107	90	89
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1588
Q Serve(g_s), s	3.7	27.5	10.4	13.9	24.4	5.6	8.7	6.3	24.0	4.1	3.7	4.1
Cycle Q Clear(g_c), s	3.7	27.5	10.4	13.9	24.4	5.6	8.7	6.3	24.0	4.1	3.7	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Lane Grp Cap(c), veh/h	96	1125	502	557	1506	672	468	499	423	318	401	358
V/C Ratio(X)	0.78	0.98	0.46	0.96	0.75	0.23	0.79	0.28	1.46	0.34	0.22	0.25
Avail Cap(c_a), veh/h	129	1125	502	557	1506	672	468	499	423	318	401	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.49	0.49	0.49	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	30.4	24.6	37.5	22.0	16.6	29.7	33.0	41.0	24.8	28.4	28.6
Incr Delay (d2), s/veh	10.1	13.5	0.3	28.9	2.2	0.2	8.2	1.3	218.6	0.6	1.3	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	12.9	3.7	7.7	9.5	1.9	3.8	3.1	35.7	1.7	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	43.9	24.9	66.4	24.2	16.7	37.9	34.3	259.7	25.4	29.7	30.3
LnGrp LOS	D	D	C	E	C	B	D	C	F	C	C	C
Approach Vol, veh/h		1402			1827			1127			286	
Approach Delay, s/veh		41.3			35.9			158.9			28.3	
Approach LOS		D			D			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	28.5	19.0	33.0	13.2	24.8	9.4	42.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	24.0	14.5	28.5	8.7	20.3	6.5	36.5				
Max Q Clear Time (g_c+I1), s	6.1	26.0	15.9	29.5	10.7	6.1	5.7	26.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.7	0.0	5.5				
Intersection Summary												
HCM 6th Ctrl Delay			66.9									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	630	571	29	1236	639	163	0	519	41	0	564
Future Volume (veh/h)	92	630	571	29	1236	639	163	0	519	41	0	564
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	100	685	621	32	1343	695	177	0	564	45	0	613
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	111	1446	645	49	1321	589	808	0	0	808	0	0
Arrive On Green	0.06	0.41	0.41	0.03	0.37	0.37	0.45	0.00	0.00	0.45	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	177		1781	45	
Grp Volume(v), veh/h	100	685	621	32	1343	695	177	20.0		45	18.4	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	C		1781	B	
Q Serve(g_s), s	6.7	17.0	45.9	2.1	44.6	44.6	7.2			1.7		
Cycle Q Clear(g_c), s	6.7	17.0	45.9	2.1	44.6	44.6	7.2			1.7		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	111	1446	645	49	1321	589	808			808		
V/C Ratio(X)	0.90	0.47	0.96	0.66	1.02	1.18	0.22			0.06		
Avail Cap(c_a), veh/h	111	1446	645	94	1321	589	808			808		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	55.9	26.2	34.7	57.8	37.7	37.7	19.9			18.4		
Incr Delay (d2), s/veh	54.7	0.2	26.4	14.0	29.0	97.5	0.1			0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.6	6.9	21.3	1.1	23.6	32.3	2.9			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	110.5	26.4	61.2	71.9	66.7	135.2	20.0			18.4		
LnGrp LOS	F	C	E	E	F	F	C			B		
Approach Vol, veh/h		1406			2070							
Approach Delay, s/veh		47.7			89.8							
Approach LOS		D			F							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	58.9		7.8	53.3	58.9		12.0	49.1				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	8.6		6.3	45.8	12.5		7.5	44.6				
Max Q Clear Time (g_c+I1), s	3.7		4.1	47.9	9.2		8.7	46.6				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			69.6									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/04/2024
























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘		↗↘	↘		↗
Traffic Volume (veh/h)	142	1129	480	32	924	428	122	0	821	77	0	590
Future Volume (veh/h)	142	1129	480	32	924	428	122	0	821	77	0	590
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	154	1227	522	35	1004	465	133	0	892	84	0	641
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	173	1300	580	55	1066	476	834	0	0	834	0	0
Arrive On Green	0.10	0.37	0.37	0.03	0.30	0.30	0.47	0.00	0.00	0.47	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	133		1781	84	
Grp Volume(v), veh/h	154	1227	522	35	1004	465	133	15.4		84	14.9	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	8.5	33.4	31.1	1.9	27.6	29.1	4.3			2.6		
Cycle Q Clear(g_c), s	8.5	33.4	31.1	1.9	27.6	29.1	4.3			2.6		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	173	1300	580	55	1066	476	834			834		
V/C Ratio(X)	0.89	0.94	0.90	0.63	0.94	0.98	0.16			0.10		
Avail Cap(c_a), veh/h	173	1300	580	89	1066	476	834			834		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	44.6	30.7	30.0	47.9	34.1	34.7	15.3			14.9		
Incr Delay (d2), s/veh	39.3	13.7	17.1	11.3	15.6	35.4	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	5.5	15.6	13.7	1.0	13.4	15.1	1.6			1.0		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.9	44.4	47.1	59.2	49.7	70.1	15.4			14.9		
LnGrp LOS	F	D	D	E	D	E	B			B		
Approach Vol, veh/h		1903			1504							
Approach Delay, s/veh		48.3			56.2							
Approach LOS		D			E							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	51.3		7.6	41.1	51.3		14.2	34.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	7.5		5.0	34.7	8.3		9.7	30.0				
Max Q Clear Time (g_c+I1), s	4.6		3.9	35.4	6.3		10.5	31.1				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			49.6									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd






















04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	201	2	197	1	0	0	290	528	2	0	476	301
Future Volume (vph)	201	2	197	1	0	0	290	528	2	0	476	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95			0.95	1.00
Frt	1.00	0.92	0.85		1.00		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.98	1.00		0.95		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1528	1504		1770		1770	3537			3539	1583
Flt Permitted	0.95	0.98	1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1528	1504		1863		1770	3537			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	218	2	214	1	0	0	315	574	2	0	517	327
RTOR Reduction (vph)	0	46	118	0	0	0	0	0	0	0	0	201
Lane Group Flow (vph)	150	99	21	0	1	0	315	576	0	0	517	126
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	13.4	13.4	13.4		1.2		22.6	61.9			34.8	34.8
Effective Green, g (s)	13.4	13.4	13.4		1.2		22.6	61.9			34.8	34.8
Actuated g/C Ratio	0.15	0.15	0.15		0.01		0.25	0.69			0.39	0.39
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	250	227	223		24		444	2432			1368	612
v/s Ratio Prot	c0.09	0.06					c0.18	0.16			c0.15	
v/s Ratio Perm			0.01		c0.00							0.08
v/c Ratio	0.60	0.44	0.09		0.04		0.71	0.24			0.38	0.21
Uniform Delay, d1	35.8	34.9	33.1		43.8		30.7	5.2			19.8	18.4
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	3.8	1.3	0.2		0.7		5.1	0.2			0.8	0.8
Delay (s)	39.6	36.2	33.2		44.5		35.9	5.5			20.6	19.2
Level of Service	D	D	C		D		D	A			C	B
Approach Delay (s)		36.4			44.5			16.2			20.1	
Approach LOS		D			D			B			C	
Intersection Summary												
HCM 2000 Control Delay			21.8				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)				18.0	
Intersection Capacity Utilization			50.1%				ICU Level of Service				A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd























04/03/2024

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	321	0	260	4	9	1	292	683	2	1	488	232	
Future Volume (vph)	321	0	260	4	9	1	292	683	2	1	488	232	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00	
Frt	1.00	0.94	0.85		0.99		1.00	1.00		1.00	1.00	0.85	
Flt Protected	0.95	0.97	1.00		0.99		0.95	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	1681	1547	1504		1822		1770	3538		1770	3539	1583	
Flt Permitted	0.95	0.97	1.00		1.00		0.95	1.00		0.37	1.00	1.00	
Satd. Flow (perm)	1681	1547	1504		1846		1770	3538		688	3539	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	349	0	283	4	10	1	317	742	2	1	530	252	
RTOR Reduction (vph)	0	105	163	0	1	0	0	0	0	0	0	161	
Lane Group Flow (vph)	220	109	35	0	14	0	317	744	0	1	530	91	
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm	
Protected Phases	4	4			8		5	2			6	6	
Permitted Phases			4	8						6		6	
Actuated Green, G (s)	15.8	15.8	15.8		1.5		22.8	59.2		31.9	31.9	31.9	
Effective Green, g (s)	15.8	15.8	15.8		1.5		22.8	59.2		31.9	31.9	31.9	
Actuated g/C Ratio	0.18	0.18	0.18		0.02		0.25	0.66		0.35	0.35	0.35	
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	295	271	264		30		448	2327		243	1254	561	
v/s Ratio Prot	c0.13	0.07					c0.18	0.21			c0.15		
v/s Ratio Perm			0.02		c0.01					0.00		0.06	
v/c Ratio	0.75	0.40	0.13		0.47		0.71	0.32		0.00	0.42	0.16	
Uniform Delay, d1	35.2	32.9	31.3		43.9		30.6	6.7		18.8	22.1	19.9	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		0.42	0.41	0.47	
Incremental Delay, d2	9.8	1.0	0.2		11.1		5.1	0.4		0.0	0.7	0.4	
Delay (s)	45.0	33.9	31.5		54.9		35.6	7.0		7.9	9.8	9.7	
Level of Service	D	C	C		D		D	A		A	A	A	
Approach Delay (s)		37.0			54.9			15.6			9.8		
Approach LOS		D			D			B			A		
Intersection Summary													
HCM 2000 Control Delay			19.4		HCM 2000 Level of Service						B		
HCM 2000 Volume to Capacity ratio			0.58										
Actuated Cycle Length (s)			90.0		Sum of lost time (s)						18.0		
Intersection Capacity Utilization			59.1%		ICU Level of Service						B		
Analysis Period (min)			15										
c Critical Lane Group													

HCM 6th Signalized Intersection Summary
























6: Indian Hill Blvd & Foothill Blvd

04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	780	172	118	876	182	231	362	103	281	540	209
Future Volume (veh/h)	123	780	172	118	876	182	231	362	103	281	540	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	848	187	128	952	198	251	393	112	305	587	227
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	930	205	141	1097	489	170	677	191	336	637	540
Arrive On Green	0.09	0.32	0.32	0.08	0.31	0.31	0.10	0.25	0.25	0.19	0.34	0.34
Sat Flow, veh/h	1781	2894	638	1781	3554	1585	1781	2737	771	1781	1870	1585
Grp Volume(v), veh/h	134	521	514	128	952	198	251	254	251	305	587	227
Grp Sat Flow(s),veh/h/ln	1781	1777	1755	1781	1777	1585	1781	1777	1732	1781	1870	1585
Q Serve(g_s), s	8.1	30.9	30.9	7.8	27.8	10.9	10.5	13.8	14.1	18.4	33.2	12.1
Cycle Q Clear(g_c), s	8.1	30.9	30.9	7.8	27.8	10.9	10.5	13.8	14.1	18.4	33.2	12.1
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	163	571	564	141	1097	489	170	440	428	336	637	540
V/C Ratio(X)	0.82	0.91	0.91	0.91	0.87	0.40	1.48	0.58	0.59	0.91	0.92	0.42
Avail Cap(c_a), veh/h	251	603	595	141	1097	489	170	440	428	382	637	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	49.1	35.8	35.8	50.3	35.9	30.0	49.8	36.3	36.4	43.7	34.9	27.9
Incr Delay (d2), s/veh	11.8	17.7	17.9	49.4	7.6	0.5	243.2	5.4	5.8	18.5	16.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	15.6	15.5	5.4	12.7	4.1	16.1	6.5	6.5	9.8	17.7	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.9	53.5	53.8	99.7	43.5	30.6	292.9	41.8	42.2	62.2	51.6	29.7
LnGrp LOS	E	D	D	F	D	C	F	D	D	E	D	C
Approach Vol, veh/h		1169			1278			756			1119	
Approach Delay, s/veh		54.5			47.1			125.3			50.0	
Approach LOS		D			D			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.2	31.7	13.2	39.8	15.0	42.0	14.6	38.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	23.6	22.4	8.7	37.3	10.5	35.5	15.5	30.5				
Max Q Clear Time (g_c+I1), s	20.4	16.1	9.8	32.9	12.5	35.2	10.1	29.8				
Green Ext Time (p_c), s	0.3	1.6	0.0	2.4	0.0	0.2	0.1	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			63.5									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary
 6: Indian Hill Blvd & Foothill Blvd

04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	971	243	127	919	182	285	453	127	170	314	121
Future Volume (veh/h)	105	971	243	127	919	182	285	453	127	170	314	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	1055	264	138	999	198	310	492	138	185	341	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	987	246	141	1237	552	281	679	189	220	399	338
Arrive On Green	0.08	0.35	0.35	0.08	0.35	0.35	0.16	0.25	0.25	0.12	0.21	0.21
Sat Flow, veh/h	1781	2819	702	1781	3554	1585	1781	2744	765	1781	1870	1585
Grp Volume(v), veh/h	114	663	656	138	999	198	310	318	312	185	341	132
Grp Sat Flow(s),veh/h/ln	1781	1777	1744	1781	1777	1585	1781	1777	1733	1781	1870	1585
Q Serve(g_s), s	5.7	31.5	31.5	7.0	22.9	8.4	14.2	14.7	14.9	9.1	15.8	6.4
Cycle Q Clear(g_c), s	5.7	31.5	31.5	7.0	22.9	8.4	14.2	14.7	14.9	9.1	15.8	6.4
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	144	622	610	141	1237	552	281	440	429	220	399	338
V/C Ratio(X)	0.79	1.07	1.07	0.98	0.81	0.36	1.10	0.72	0.73	0.84	0.85	0.39
Avail Cap(c_a), veh/h	196	622	610	141	1237	552	281	440	429	259	399	338
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	40.6	29.3	29.3	41.4	26.6	21.8	37.9	31.0	31.1	38.6	34.1	30.4
Incr Delay (d2), s/veh	14.3	54.9	58.2	70.2	4.1	0.4	84.1	9.9	10.4	16.5	17.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	21.8	22.0	5.7	9.7	3.0	12.6	7.3	7.2	4.9	9.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	84.1	87.5	111.6	30.7	22.2	122.0	40.9	41.5	55.1	52.0	33.3
LnGrp LOS	D	F	F	F	C	C	F	D	D	E	D	C
Approach Vol, veh/h		1433			1335			940			658	
Approach Delay, s/veh		83.4			37.8			67.8			49.1	
Approach LOS		F			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.6	26.8	11.6	36.0	18.7	23.7	11.8	35.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.1	20.3	7.1	31.5	14.2	19.2	9.9	28.7				
Max Q Clear Time (g_c+I1), s	11.1	16.9	9.0	33.5	16.2	17.8	7.7	24.9				
Green Ext Time (p_c), s	0.1	1.2	0.0	0.0	0.0	0.4	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay			60.9									
HCM 6th LOS			E									

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗		↔			↔	
Traffic Vol, veh/h	21	1140	80	123	1281	10	1	0	92	0	0	8
Future Vol, veh/h	21	1140	80	123	1281	10	1	0	92	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	1239	87	134	1392	11	1	0	100	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1403	0	0	1326	0	0	2249	2956	620	2326	3032	696
Stage 1	-	-	-	-	-	-	1285	1285	-	1660	1660	-
Stage 2	-	-	-	-	-	-	964	1671	-	666	1372	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	483	-	-	517	-	-	23	14	431	20	13	384
Stage 1	-	-	-	-	-	-	174	233	-	101	153	-
Stage 2	-	-	-	-	-	-	274	151	-	415	212	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	483	-	-	517	-	-	17	10	431	12	9	384
Mov Cap-2 Maneuver	-	-	-	-	-	-	17	10	-	12	9	-
Stage 1	-	-	-	-	-	-	166	222	-	96	113	-
Stage 2	-	-	-	-	-	-	198	112	-	304	202	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.3			19.9			14.6		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	342	483	-	-	517	-	-	384
HCM Lane V/C Ratio	0.296	0.047	-	-	0.259	-	-	0.023
HCM Control Delay (s)	19.9	12.8	-	-	14.4	-	-	14.6
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.2	0.1	-	-	1	-	-	0.1

HCM 6th TWSC
7: College Ave & Foothill Blvd

04/03/2024

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗		↔			↔	
Traffic Vol, veh/h	21	1244	60	74	1240	5	0	0	122	0	0	27
Future Vol, veh/h	21	1244	60	74	1240	5	0	0	122	0	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	1352	65	80	1348	5	0	0	133	0	0	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1353	0	0	1417	0	0	2232	2911	676	2230	2971	674
Stage 1	-	-	-	-	-	-	1398	1398	-	1508	1508	-
Stage 2	-	-	-	-	-	-	834	1513	-	722	1463	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	504	-	-	477	-	-	23	15	396	24	14	397
Stage 1	-	-	-	-	-	-	148	206	-	126	182	-
Stage 2	-	-	-	-	-	-	329	181	-	384	191	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	504	-	-	477	-	-	18	12	396	13	11	397
Mov Cap-2 Maneuver	-	-	-	-	-	-	18	12	-	13	11	-
Stage 1	-	-	-	-	-	-	141	197	-	120	151	-
Stage 2	-	-	-	-	-	-	254	151	-	244	182	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.8			18.6			14.8		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	396	504	-	-	477	-	-	397
HCM Lane V/C Ratio	0.335	0.045	-	-	0.169	-	-	0.074
HCM Control Delay (s)	18.6	12.5	-	-	14.1	-	-	14.8
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.6	-	-	0.2

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷		↷			↷	
Traffic Volume (veh/h)	4	1151	82	70	1404	11	11	3	17	12	7	0
Future Volume (veh/h)	4	1151	82	70	1404	11	11	3	17	12	7	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	1251	89	76	1526	12	12	3	18	13	8	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	1854	827	236	1885	15	233	82	280	391	219	0
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	337	3554	1585	444	3614	28	460	251	854	895	667	0
Grp Volume(v), veh/h	4	1251	89	76	750	788	33	0	0	21	0	0
Grp Sat Flow(s),veh/h/ln	337	1777	1585	444	1777	1865	1565	0	0	1562	0	0
Q Serve(g_s), s	0.6	15.6	1.7	9.1	21.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	21.6	15.6	1.7	24.7	21.0	21.0	0.8	0.0	0.0	0.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.36		0.55	0.62		0.00
Lane Grp Cap(c), veh/h	178	1854	827	236	927	973	596	0	0	610	0	0
V/C Ratio(X)	0.02	0.67	0.11	0.32	0.81	0.81	0.06	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	185	1925	859	245	962	1010	596	0	0	610	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.41	0.41	0.41	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.8	10.6	7.3	19.7	11.9	11.9	13.8	0.0	0.0	13.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.9	0.1	0.3	2.2	2.1	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.1	0.5	0.9	7.2	7.5	0.3	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	11.5	7.3	20.0	14.0	14.0	14.0	0.0	0.0	13.8	0.0	0.0
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1344			1614			33			21	
Approach Delay, s/veh		11.3			14.3			14.0			13.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.2		35.8		24.2		35.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		2.8		23.6		2.5		26.7				
Green Ext Time (p_c), s		0.1		5.7		0.0		4.6				
Intersection Summary												
HCM 6th Ctrl Delay				12.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	1532	21	13	1260	13	85	10	83	28	8	0
Future Volume (veh/h)	9	1532	21	13	1260	13	85	10	83	28	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1665	23	14	1370	14	92	11	90	30	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	1882	840	154	1909	20	292	58	229	450	122	0
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.32	0.32	0.32	0.32	0.32	0.00
Sat Flow, veh/h	391	3554	1585	298	3604	37	636	181	714	1074	380	0
Grp Volume(v), veh/h	10	1665	23	14	675	709	193	0	0	39	0	0
Grp Sat Flow(s),veh/h/ln	391	1777	1585	298	1777	1864	1532	0	0	1454	0	0
Q Serve(g_s), s	1.2	24.9	0.4	2.6	17.3	17.3	3.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.5	24.9	0.4	27.5	17.3	17.3	5.6	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.48		0.47	0.77		0.00
Lane Grp Cap(c), veh/h	214	1882	840	154	941	987	579	0	0	572	0	0
V/C Ratio(X)	0.05	0.88	0.03	0.09	0.72	0.72	0.33	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	219	1925	859	158	962	1010	579	0	0	572	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.47	0.47	0.47	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	12.5	6.7	24.6	10.7	10.7	15.7	0.0	0.0	14.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	5.2	0.0	0.1	1.2	1.2	1.5	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.1	0.1	0.2	5.7	6.0	2.1	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	17.7	6.7	24.8	11.9	11.9	17.2	0.0	0.0	14.4	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1698			1398			193				39
Approach Delay, s/veh		17.6			12.0			17.2				14.4
Approach LOS		B			B			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.7		36.3		23.7		36.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		7.6		26.9		2.9		29.5				
Green Ext Time (p_c), s		0.8		4.6		0.1		2.3				
Intersection Summary												
HCM 6th Ctrl Delay				15.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↖		↕	↖	↖	↕	↖
Traffic Volume (veh/h)	190	911	10	11	1102	119	5	2	17	147	5	356
Future Volume (veh/h)	190	911	10	11	1102	119	5	2	17	147	5	356
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	990	11	12	1198	129	5	2	18	160	5	387
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	1668	19	26	1244	555	239	85	343	188	696	590
Arrive On Green	0.13	0.46	0.46	0.01	0.35	0.35	0.22	0.22	0.22	0.11	0.37	0.37
Sat Flow, veh/h	1781	3600	40	1781	3554	1585	785	391	1585	1781	1870	1585
Grp Volume(v), veh/h	207	489	512	12	1198	129	7	0	18	160	5	387
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1585	1175	0	1585	1781	1870	1585
Q Serve(g_s), s	10.3	18.3	18.3	0.6	29.8	5.2	0.0	0.0	0.8	7.9	0.2	18.3
Cycle Q Clear(g_c), s	10.3	18.3	18.3	0.6	29.8	5.2	0.3	0.0	0.8	7.9	0.2	18.3
Prop In Lane	1.00		0.02	1.00		1.00	0.71		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	823	863	26	1244	555	323	0	343	188	696	590
V/C Ratio(X)	0.91	0.59	0.59	0.47	0.96	0.23	0.02	0.00	0.05	0.85	0.01	0.66
Avail Cap(c_a), veh/h	228	823	863	99	1244	555	323	0	343	188	696	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.46	0.46	0.46	1.00	0.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	38.7	17.9	17.9	44.0	28.7	20.7	27.7	0.0	27.9	39.6	17.8	23.5
Incr Delay (d2), s/veh	27.9	0.8	0.8	6.0	10.2	0.1	0.1	0.0	0.3	25.7	0.0	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	7.0	7.3	0.3	13.4	1.8	0.1	0.0	0.3	4.7	0.1	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.6	18.7	18.6	50.0	38.9	20.8	27.8	0.0	28.2	65.3	17.8	28.3
LnGrp LOS	E	B	B	D	D	C	C	A	C	E	B	C
Approach Vol, veh/h		1208			1339			25			552	
Approach Delay, s/veh		26.9			37.2			28.1			38.9	
Approach LOS		C			D			C			D	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	14.0	24.0	5.8	46.2		38.0	16.0	36.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	19.5	5.0	38.0		33.5	11.5	31.5				
Max Q Clear Time (g_c+I1), s	9.9	2.8	2.6	20.3		20.3	12.3	31.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.8		1.1	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				33.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	1243	11	27	1017	126	16	8	26	120	5	187
Future Volume (veh/h)	183	1243	11	27	1017	126	16	8	26	120	5	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	199	1351	12	29	1105	137	17	9	28	130	5	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	233	1576	14	51	1187	530	271	131	388	161	720	610
Arrive On Green	0.13	0.44	0.44	0.03	0.33	0.33	0.24	0.24	0.24	0.09	0.38	0.38
Sat Flow, veh/h	1781	3609	32	1781	3554	1585	839	534	1585	1781	1870	1585
Grp Volume(v), veh/h	199	665	698	29	1105	137	26	0	28	130	5	203
Grp Sat Flow(s),veh/h/ln	1781	1777	1865	1781	1777	1585	1373	0	1585	1781	1870	1585
Q Serve(g_s), s	9.8	30.3	30.4	1.4	27.0	5.7	0.0	0.0	1.2	6.4	0.1	8.1
Cycle Q Clear(g_c), s	9.8	30.3	30.4	1.4	27.0	5.7	1.0	0.0	1.2	6.4	0.1	8.1
Prop In Lane	1.00		0.02	1.00		1.00	0.65		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	233	776	814	51	1187	530	402	0	388	161	720	610
V/C Ratio(X)	0.85	0.86	0.86	0.57	0.93	0.26	0.06	0.00	0.07	0.81	0.01	0.33
Avail Cap(c_a), veh/h	247	776	814	101	1204	537	402	0	388	168	720	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.37	0.37	0.37	0.68	0.68	0.68	1.00	0.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	38.3	22.8	22.8	43.2	29.0	21.8	26.0	0.0	26.1	40.2	17.1	19.5
Incr Delay (d2), s/veh	10.0	3.8	3.6	6.6	9.3	0.2	0.3	0.0	0.4	21.3	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	12.3	12.8	0.7	12.2	2.0	0.5	0.0	0.5	3.7	0.1	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	26.6	26.5	49.8	38.2	22.0	26.3	0.0	26.5	61.5	17.1	20.8
LnGrp LOS	D	C	C	D	D	C	C	A	C	E	B	C
Approach Vol, veh/h		1562			1271			54			338	
Approach Delay, s/veh		29.3			36.7			26.4			36.4	
Approach LOS		C			D			C			D	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	12.6	26.5	7.1	43.8		39.1	16.3	34.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	20.5	5.1	37.9		33.5	12.5	30.5				
Max Q Clear Time (g_c+I1), s	8.4	3.2	3.4	32.4		10.1	11.8	29.0				
Green Ext Time (p_c), s	0.0	0.1	0.0	3.7		0.6	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				32.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘↘	↗↗		↘	↗↗	
Traffic Volume (veh/h)	156	793	127	135	964	45	238	336	167	58	284	98
Future Volume (veh/h)	156	793	127	135	964	45	238	336	167	58	284	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	862	138	147	1048	49	259	365	182	63	309	107
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	1197	534	186	1146	511	696	771	378	297	869	295
Arrive On Green	0.12	0.34	0.34	0.10	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1882	2310	1133	860	2604	884
Grp Volume(v), veh/h	170	862	138	147	1048	49	259	279	268	63	209	207
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	941	1777	1666	860	1777	1711
Q Serve(g_s), s	5.6	12.7	3.8	4.8	17.0	1.3	7.3	7.5	7.6	3.8	5.3	5.5
Cycle Q Clear(g_c), s	5.6	12.7	3.8	4.8	17.0	1.3	12.8	7.5	7.6	11.4	5.3	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		0.52
Lane Grp Cap(c), veh/h	212	1197	534	186	1146	511	696	593	556	297	593	571
V/C Ratio(X)	0.80	0.72	0.26	0.79	0.91	0.10	0.37	0.47	0.48	0.21	0.35	0.36
Avail Cap(c_a), veh/h	223	1197	534	229	1155	515	696	593	556	297	593	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	17.4	14.5	26.2	19.5	14.2	20.0	15.8	15.9	20.4	15.1	15.1
Incr Delay (d2), s/veh	14.6	1.7	0.2	13.9	11.2	0.1	1.5	2.6	2.9	1.6	1.6	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.7	1.2	2.6	7.7	0.4	1.5	3.0	2.9	0.8	2.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	19.1	14.7	40.2	30.7	14.3	21.5	18.4	18.8	22.0	16.7	16.9
LnGrp LOS	D	B	B	D	C	B	C	B	B	C	B	B
Approach Vol, veh/h		1170			1244			806			479	
Approach Delay, s/veh		21.7			31.2			19.5			17.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.5	10.8	24.7		24.5	11.6	23.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	7.7	19.3		19.5	7.5	19.5				
Max Q Clear Time (g_c+I1), s		14.8	6.8	14.7		13.4	7.6	19.0				
Green Ext Time (p_c), s		2.0	0.0	2.4		1.4	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay				23.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	1178	180	108	837	47	124	254	107	102	257	117
Future Volume (veh/h)	150	1178	180	108	837	47	124	254	107	102	257	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	1280	196	117	910	51	135	276	116	111	279	127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	1416	632	149	1308	583	632	762	312	329	742	329
Arrive On Green	0.11	0.40	0.40	0.08	0.37	0.37	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1900	2458	1007	992	2394	1062
Grp Volume(v), veh/h	163	1280	196	117	910	51	135	198	194	111	205	201
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	950	1777	1689	992	1777	1679
Q Serve(g_s), s	5.8	22.0	5.5	4.2	14.1	1.4	3.9	5.6	5.8	6.4	5.9	6.1
Cycle Q Clear(g_c), s	5.8	22.0	5.5	4.2	14.1	1.4	10.0	5.6	5.8	12.2	5.9	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		0.63
Lane Grp Cap(c), veh/h	204	1416	632	149	1308	583	632	551	524	329	551	521
V/C Ratio(X)	0.80	0.90	0.31	0.78	0.70	0.09	0.21	0.36	0.37	0.34	0.37	0.39
Avail Cap(c_a), veh/h	247	1449	646	178	1312	585	632	551	524	329	551	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	18.4	13.4	29.2	17.5	13.4	21.5	17.4	17.5	22.3	17.5	17.6
Incr Delay (d2), s/veh	7.9	4.6	0.1	17.2	1.6	0.1	0.7	1.8	2.0	2.8	1.9	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	8.4	1.7	2.4	5.2	0.4	0.9	2.3	2.3	1.6	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	23.0	13.6	46.4	19.1	13.5	22.2	19.2	19.4	25.0	19.4	19.7
LnGrp LOS	D	C	B	D	B	B	C	B	B	C	B	B
Approach Vol, veh/h		1639			1078			527			517	
Approach Delay, s/veh		23.1			21.8			20.1			20.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.7	9.9	30.4		24.7	11.9	28.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	6.5	26.5		18.5	9.0	24.0				
Max Q Clear Time (g_c+I1), s		12.0	6.2	24.0		14.2	7.8	16.1				
Green Ext Time (p_c), s		1.6	0.0	1.9		1.1	0.0	3.7				
Intersection Summary												
HCM 6th Ctrl Delay				22.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	625	274	108	805	165	255	605	123	107	500	73
Future Volume (veh/h)	113	625	274	108	805	165	255	605	123	107	500	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	119	658	288	114	847	174	268	637	129	113	526	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	1011	451	236	973	434	273	1048	467	235	1281	184
Arrive On Green	0.08	0.28	0.28	0.07	0.27	0.27	0.08	0.29	0.29	0.07	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4508	649
Grp Volume(v), veh/h	119	658	288	114	847	174	268	637	129	113	395	208
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1753
Q Serve(g_s), s	4.2	10.3	10.1	2.0	14.4	5.7	4.9	9.8	4.0	2.0	6.0	6.1
Cycle Q Clear(g_c), s	4.2	10.3	10.1	2.0	14.4	5.7	4.9	9.8	4.0	2.0	6.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	141	1011	451	236	973	434	273	1048	467	235	967	498
V/C Ratio(X)	0.85	0.65	0.64	0.48	0.87	0.40	0.98	0.61	0.28	0.48	0.41	0.42
Avail Cap(c_a), veh/h	141	1011	451	273	1010	450	273	1048	467	273	967	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	19.9	19.8	28.4	21.9	18.8	29.1	19.2	17.1	28.4	18.4	18.4
Incr Delay (d2), s/veh	35.4	1.5	3.0	1.5	8.1	0.6	49.5	2.6	1.5	1.5	1.3	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.9	3.6	0.8	6.3	1.9	3.7	3.8	1.5	0.8	2.2	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	21.4	22.8	30.0	30.1	19.4	78.6	21.8	18.6	30.0	19.6	21.0
LnGrp LOS	E	C	C	C	C	B	E	C	B	C	B	C
Approach Vol, veh/h		1065			1135			1034			716	
Approach Delay, s/veh		26.6			28.4			36.1			21.7	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	23.2	8.8	22.5	9.5	22.5	9.5	21.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.0	11.8	4.0	12.3	6.9	8.1	6.2	16.4				
Green Ext Time (p_c), s	0.0	2.3	0.0	2.5	0.0	2.5	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				28.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶↷	↷	↷	↶↷	↷	↷	↶↷	↷↷	↷
Traffic Volume (veh/h)	139	1014	225	167	710	306	179	516	143	197	618	70
Future Volume (veh/h)	139	1014	225	167	710	306	179	516	143	197	618	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	1067	237	176	747	322	188	543	151	207	651	74
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	1000	446	267	997	445	270	1000	446	270	1311	148
Arrive On Green	0.08	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4656	524
Grp Volume(v), veh/h	146	1067	237	176	747	322	188	543	151	207	474	251
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1776
Q Serve(g_s), s	5.0	18.0	8.1	3.2	12.2	11.7	3.4	8.3	4.8	3.8	7.4	7.5
Cycle Q Clear(g_c), s	5.0	18.0	8.1	3.2	12.2	11.7	3.4	8.3	4.8	3.8	7.4	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	139	1000	446	267	997	445	270	1000	446	270	958	500
V/C Ratio(X)	1.05	1.07	0.53	0.66	0.75	0.72	0.70	0.54	0.34	0.77	0.49	0.50
Avail Cap(c_a), veh/h	139	1000	446	270	1000	446	270	1000	446	270	958	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	23.0	19.4	28.7	21.0	20.8	28.7	19.5	18.2	28.9	19.2	19.2
Incr Delay (d2), s/veh	89.6	48.0	1.2	5.7	3.2	5.7	7.5	2.1	2.0	12.4	1.8	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	13.2	2.8	1.4	4.9	4.5	1.6	3.2	1.8	1.9	2.8	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	119.1	70.9	20.6	34.4	24.1	26.5	36.3	21.6	20.3	41.3	21.0	22.8
LnGrp LOS	F	F	C	C	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1450			1245			882			932	
Approach Delay, s/veh		67.6			26.2			24.5			26.0	
Approach LOS		E			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.4	22.5	9.5	22.5	9.5	22.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.8	10.3	5.2	20.0	5.4	9.5	7.0	14.2				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.0	2.7	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay				39.1								
HCM 6th LOS				D								

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	575	255	168	893	0	389	0	137	0	0	1
Future Volume (vph)	4	575	255	168	893	0	389	0	137	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.99	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1603	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1603	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	605	268	177	940	0	409	0	144	0	0	1
RTOR Reduction (vph)	0	0	185	0	0	0	0	105	91	0	1	0
Lane Group Flow (vph)	4	605	83	177	940	0	213	105	39	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.8	18.8	18.8	5.1	23.1		18.2	18.2	18.2		0.9	
Effective Green, g (s)	0.8	18.8	18.8	5.1	23.1		18.2	18.2	18.2		0.9	
Actuated g/C Ratio	0.01	0.31	0.31	0.08	0.38		0.30	0.30	0.30		0.01	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	23	1090	487	287	1340		501	478	448		44	
v/s Ratio Prot	0.00	0.17		c0.05	c0.27		c0.13	0.07			c0.00	
v/s Ratio Perm			0.05						0.03			
v/c Ratio	0.17	0.56	0.17	0.62	0.70		0.43	0.22	0.09		0.00	
Uniform Delay, d1	29.8	17.6	15.4	27.0	16.0		17.2	16.1	15.4		29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.6	0.6	0.2	3.9	1.7		2.6	1.1	0.4		0.0	
Delay (s)	33.4	18.2	15.6	30.9	17.7		19.8	17.1	15.8		29.6	
Level of Service	C	B	B	C	B		B	B	B		C	
Approach Delay (s)		17.5			19.8			17.9			29.6	
Approach LOS		B			B			B			C	

Intersection Summary

HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	61.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1051	559	282	698	1	553	2	537	0	2	0
Future Volume (vph)	4	1051	559	282	698	1	553	2	537	0	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.92	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3538		1681	1525	1504		3539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3538		1681	1525	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	1106	588	297	735	1	582	2	565	0	2	0
RTOR Reduction (vph)	0	0	251	0	0	0	0	49	260	0	0	0
Lane Group Flow (vph)	4	1106	337	297	736	0	402	336	102	0	2	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2			6	
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	431	425		55	
v/s Ratio Prot	0.00	c0.31		c0.09	c0.21		c0.24	0.22			c0.00	
v/s Ratio Perm			0.21						0.07			
v/c Ratio	0.17	0.91	0.62	1.11	0.51		0.85	0.78	0.24		0.04	
Uniform Delay, d1	31.2	20.1	17.6	29.5	14.2		21.6	21.1	17.7		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.3	10.5	2.2	87.1	0.3		16.8	13.1	1.3		0.3	
Delay (s)	34.5	30.7	19.8	116.6	14.6		38.4	34.2	19.0		31.3	
Level of Service	C	C	B	F	B		D	C	B		C	
Approach Delay (s)		26.9			43.9			30.9			31.3	
Approach LOS		C			D			C			C	

Intersection Summary

HCM 2000 Control Delay	32.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	54.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	21	60	72	5	31	4	714	91	50	782	2
Future Vol, veh/h	0	21	60	72	5	31	4	714	91	50	782	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	65	78	5	34	4	776	99	54	850	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1812	1842	851	1837	1794	826	852	0	0	875	0	0
Stage 1	959	959	-	834	834	-	-	-	-	-	-	-
Stage 2	853	883	-	1003	960	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	61	75	360	~ 58	80	372	787	-	-	771	-	-
Stage 1	309	335	-	362	383	-	-	-	-	-	-	-
Stage 2	354	364	-	292	335	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	49	69	360	~ 33	74	372	787	-	-	771	-	-
Mov Cap-2 Maneuver	49	69	-	~ 33	74	-	-	-	-	-	-	-
Stage 1	307	312	-	360	381	-	-	-	-	-	-	-
Stage 2	316	362	-	206	312	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	46	\$ 892.7	0	0.6
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	787	-	-	172	46	771	-
HCM Lane V/C Ratio	0.006	-	-	0.512	2.552	0.07	-
HCM Control Delay (s)	9.6	-	-	46	892.7	10	-
HCM Lane LOS	A	-	-	E	F	B	-
HCM 95th %tile Q(veh)	0	-	-	2.5	12.5	0.2	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
13: 6th St & Indian Hill Blvd

04/04/2024

Intersection												
Int Delay, s/veh	68											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	4	7	5	76	12	115	7	737	70	91	653	1
Future Vol, veh/h	4	7	5	76	12	115	7	737	70	91	653	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	8	5	83	13	125	8	801	76	99	710	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1833	1802	711	1770	1764	839	711	0	0	877	0	0
Stage 1	909	909	-	855	855	-	-	-	-	-	-	-
Stage 2	924	893	-	915	909	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	59	80	433	~ 65	84	366	888	-	-	770	-	-
Stage 1	329	354	-	353	375	-	-	-	-	-	-	-
Stage 2	323	360	-	327	354	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	30	69	433	~ 53	72	366	888	-	-	770	-	-
Mov Cap-2 Maneuver	30	69	-	~ 53	72	-	-	-	-	-	-	-
Stage 1	326	308	-	350	372	-	-	-	-	-	-	-
Stage 2	203	357	-	274	308	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	79.5	\$ 584.1	0.1	1.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	65	106	770	-
HCM Lane V/C Ratio	0.009	-	-	0.268	2.082	0.128	-
HCM Control Delay (s)	9.1	-	-	79.5	\$ 584.1	10.4	-
HCM Lane LOS	A	-	-	F	F	B	-
HCM 95th %tile Q(veh)	0	-	-	0.9	18.7	0.4	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	59	212	30	46	132	18	67	217	80	20	159	36
Future Vol, veh/h	59	212	30	46	132	18	67	217	80	20	159	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	230	33	50	143	20	73	236	87	22	173	39
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	18.3	14.3	21.4	14.4
HCM LOS	C	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	20%	23%	9%
Vol Thru, %	60%	70%	67%	74%
Vol Right, %	22%	10%	9%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	364	301	196	215
LT Vol	67	59	46	20
Through Vol	217	212	132	159
RT Vol	80	30	18	36
Lane Flow Rate	396	327	213	234
Geometry Grp	1	1	1	1
Degree of Util (X)	0.679	0.586	0.399	0.425
Departure Headway (Hd)	6.174	6.444	6.744	6.552
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	582	556	530	547
Service Time	4.239	4.513	4.823	4.629
HCM Lane V/C Ratio	0.68	0.588	0.402	0.428
HCM Control Delay	21.4	18.3	14.3	14.4
HCM Lane LOS	C	C	B	B
HCM 95th-tile Q	5.2	3.8	1.9	2.1

Intersection	
Intersection Delay, s/veh	40.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	207	57	99	267	23	72	155	74	21	222	59
Future Vol, veh/h	40	207	57	99	267	23	72	155	74	21	222	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	225	62	108	290	25	78	168	80	23	241	64
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	33	57.1	32.7	32.9
HCM LOS	D	F	D	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	13%	25%	7%
Vol Thru, %	51%	68%	69%	74%
Vol Right, %	25%	19%	6%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	301	304	389	302
LT Vol	72	40	99	21
Through Vol	155	207	267	222
RT Vol	74	57	23	59
Lane Flow Rate	327	330	423	328
Geometry Grp	1	1	1	1
Degree of Util (X)	0.753	0.757	0.938	0.755
Departure Headway (Hd)	8.288	8.243	7.986	8.28
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	435	436	452	437
Service Time	6.364	6.318	6.055	6.356
HCM Lane V/C Ratio	0.752	0.757	0.936	0.751
HCM Control Delay	32.7	33	57.1	32.9
HCM Lane LOS	D	D	F	D
HCM 95th-tile Q	6.2	6.3	10.9	6.3

Intersection	
Intersection Delay, s/veh	100.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	50	345	64	103	336	23	72	145	74	21	211	66
Future Vol, veh/h	50	345	64	103	336	23	72	145	74	21	211	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	375	70	112	365	25	78	158	80	23	229	72
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	133.4	140.6	41.7	43.2
HCM LOS	F	F	E	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	11%	22%	7%
Vol Thru, %	50%	75%	73%	71%
Vol Right, %	25%	14%	5%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	291	459	462	298
LT Vol	72	50	103	21
Through Vol	145	345	336	211
RT Vol	74	64	23	66
Lane Flow Rate	316	499	502	324
Geometry Grp	1	1	1	1
Degree of Util (X)	0.786	1.181	1.2	0.801
Departure Headway (Hd)	10.1	9.1	9.139	10.036
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	361	404	402	363
Service Time	8.1	7.1	7.139	8.036
HCM Lane V/C Ratio	0.875	1.235	1.249	0.893
HCM Control Delay	41.7	133.4	140.6	43.2
HCM Lane LOS	E	F	F	E
HCM 95th-tile Q	6.5	18.4	19.1	6.8

Intersection

Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	238	12	13	256	0	13	0	8	1	1	1
Future Vol, veh/h	2	238	12	13	256	0	13	0	8	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	259	13	14	278	0	14	0	9	1	1	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	9.5	8.2	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	62%	1%	5%	33%
Vol Thru, %	0%	94%	95%	33%
Vol Right, %	38%	5%	0%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	252	269	3
LT Vol	13	2	13	1
Through Vol	0	238	256	1
RT Vol	8	12	0	1
Lane Flow Rate	23	274	292	3
Geometry Grp	1	1	1	1
Degree of Util (X)	0.032	0.317	0.341	0.005
Departure Headway (Hd)	5.048	4.171	4.194	5.051
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	713	846	845	712
Service Time	3.05	2.269	2.285	3.054
HCM Lane V/C Ratio	0.032	0.324	0.346	0.004
HCM Control Delay	8.2	9.2	9.5	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.4	1.5	0

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	371	29	22	352	7	16	2	13	4	2	3
Future Vol, veh/h	2	371	29	22	352	7	16	2	13	4	2	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	403	32	24	383	8	17	2	14	4	2	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.6	12.3	9	8.9
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	0%	6%	44%
Vol Thru, %	6%	92%	92%	22%
Vol Right, %	42%	7%	2%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	402	381	9
LT Vol	16	2	22	4
Through Vol	2	371	352	2
RT Vol	13	29	7	3
Lane Flow Rate	34	437	414	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.053	0.539	0.518	0.016
Departure Headway (Hd)	5.623	4.442	4.503	5.713
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	633	813	799	623
Service Time	3.688	2.474	2.535	3.783
HCM Lane V/C Ratio	0.054	0.538	0.518	0.016
HCM Control Delay	9	12.6	12.3	8.9
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.2	3.3	3	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	309	20	270	221	124	37	617	139	46	423	44
Future Volume (veh/h)	81	309	20	270	221	124	37	617	139	46	423	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	325	21	284	233	131	39	649	146	48	445	46
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	383	25	361	379	321	316	769	173	221	885	91
Arrive On Green	0.22	0.22	0.22	0.20	0.20	0.20	0.04	0.27	0.27	0.04	0.27	0.27
Sat Flow, veh/h	1781	1738	112	1781	1870	1585	1781	2883	648	1781	3252	335
Grp Volume(v), veh/h	85	0	346	284	233	131	39	400	395	48	242	249
Grp Sat Flow(s),veh/h/ln	1781	0	1850	1781	1870	1585	1781	1777	1754	1781	1777	1810
Q Serve(g_s), s	2.6	0.0	12.1	10.2	7.7	4.9	1.1	14.4	14.4	1.3	7.8	7.8
Cycle Q Clear(g_c), s	2.6	0.0	12.1	10.2	7.7	4.9	1.1	14.4	14.4	1.3	7.8	7.8
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.37	1.00		0.18
Lane Grp Cap(c), veh/h	393	0	408	361	379	321	316	474	468	221	484	493
V/C Ratio(X)	0.22	0.00	0.85	0.79	0.62	0.41	0.12	0.84	0.85	0.22	0.50	0.50
Avail Cap(c_a), veh/h	475	0	493	475	499	423	380	474	468	275	484	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	25.2	25.5	24.5	23.4	17.1	23.4	23.4	18.1	20.7	20.7
Incr Delay (d2), s/veh	0.3	0.0	11.3	6.4	1.6	0.8	0.2	16.6	16.9	0.5	3.7	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	6.0	4.7	3.4	1.8	0.4	7.6	7.5	0.5	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	0.0	36.5	32.0	26.2	24.2	17.3	40.0	40.4	18.6	24.4	24.4
LnGrp LOS	C	A	D	C	C	C	B	D	D	B	C	C
Approach Vol, veh/h		431			648			834			539	
Approach Delay, s/veh		33.6			28.3			39.1			23.9	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	22.5		19.4	7.1	22.9		18.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	3.3	16.4		14.1	3.1	9.8		12.2				
Green Ext Time (p_c), s	0.0	0.8		0.8	0.0	1.7		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				32.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	57	317	28	317	385	49	32	386	306	116	438	74
Future Volume (veh/h)	57	317	28	317	385	49	32	386	306	116	438	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	334	29	334	405	52	34	406	322	122	461	78
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	376	33	423	444	376	275	449	353	232	821	138
Arrive On Green	0.22	0.22	0.22	0.24	0.24	0.24	0.03	0.24	0.24	0.07	0.27	0.27
Sat Flow, veh/h	1781	1697	147	1781	1870	1585	1781	1892	1488	1781	3043	512
Grp Volume(v), veh/h	60	0	363	334	405	52	34	381	347	122	268	271
Grp Sat Flow(s),veh/h/ln	1781	0	1844	1781	1870	1585	1781	1777	1603	1781	1777	1778
Q Serve(g_s), s	2.1	0.0	14.5	13.3	16.0	2.0	1.1	15.8	16.0	3.9	9.8	9.9
Cycle Q Clear(g_c), s	2.1	0.0	14.5	13.3	16.0	2.0	1.1	15.8	16.0	3.9	9.8	9.9
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.93	1.00		0.29
Lane Grp Cap(c), veh/h	395	0	409	423	444	376	275	422	381	232	479	480
V/C Ratio(X)	0.15	0.00	0.89	0.79	0.91	0.14	0.12	0.90	0.91	0.53	0.56	0.56
Avail Cap(c_a), veh/h	423	0	438	423	444	376	332	422	381	232	479	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	28.6	27.1	28.1	22.8	20.9	28.1	28.1	21.7	23.8	23.8
Incr Delay (d2), s/veh	0.2	0.0	18.6	9.7	23.0	0.2	0.2	25.2	28.4	2.2	4.7	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	7.9	6.6	9.7	0.7	0.4	9.1	8.6	1.6	4.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	0.0	47.2	36.9	51.1	23.0	21.1	53.3	56.5	23.9	28.5	28.6
LnGrp LOS	C	A	D	D	D	C	C	D	E	C	C	C
Approach Vol, veh/h		423			791			762			661	
Approach Delay, s/veh		43.9			43.3			53.3			27.7	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5		21.3	7.1	24.9		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	5.9	18.0		16.5	3.1	11.9		18.0				
Green Ext Time (p_c), s	0.0	0.0		0.4	0.0	1.6		0.0				

Intersection Summary												
HCM 6th Ctrl Delay				42.4								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↖↗↘		↗	↗↘	
Traffic Volume (veh/h)	121	319	50	197	409	118	50	698	72	33	821	72
Future Volume (veh/h)	121	319	50	197	409	118	50	698	72	33	821	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	336	53	207	431	124	53	735	76	35	864	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	821	128	149	499	423	169	1470	151	66	1436	126
Arrive On Green	0.08	0.27	0.27	0.08	0.27	0.27	0.05	0.31	0.31	0.04	0.30	0.30
Sat Flow, veh/h	1781	3080	481	1781	1870	1585	3456	4704	483	1781	4780	419
Grp Volume(v), veh/h	127	192	197	207	431	124	53	530	281	35	614	326
Grp Sat Flow(s),veh/h/ln	1781	1777	1784	1781	1870	1585	1728	1702	1783	1781	1702	1795
Q Serve(g_s), s	4.2	5.3	5.4	5.0	13.2	3.7	0.9	7.6	7.7	1.2	9.2	9.3
Cycle Q Clear(g_c), s	4.2	5.3	5.4	5.0	13.2	3.7	0.9	7.6	7.7	1.2	9.2	9.3
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.27	1.00		0.23
Lane Grp Cap(c), veh/h	149	474	476	149	499	423	169	1064	557	66	1023	539
V/C Ratio(X)	0.85	0.41	0.41	1.39	0.86	0.29	0.31	0.50	0.50	0.53	0.60	0.60
Avail Cap(c_a), veh/h	149	534	536	149	562	476	288	1064	557	149	1023	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	18.1	18.1	27.5	20.9	17.5	27.5	16.8	16.8	28.3	17.9	17.9
Incr Delay (d2), s/veh	35.5	0.6	0.6	212.2	12.2	0.4	1.0	1.7	3.2	6.6	2.6	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.9	2.0	10.7	6.5	1.2	0.4	2.7	3.1	0.6	3.4	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	18.6	18.7	239.7	33.1	17.9	28.6	18.4	20.0	34.9	20.5	22.8
LnGrp LOS	E	B	B	F	C	B	C	B	C	C	C	C
Approach Vol, veh/h		516			762			864			975	
Approach Delay, s/veh		29.5			86.7			19.6			21.8	
Approach LOS		C			F			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	23.2	9.5	20.5	7.4	22.5	9.5	20.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.2	9.7	7.0	7.4	2.9	11.3	6.2	15.2				
Green Ext Time (p_c), s	0.0	3.0	0.0	1.5	0.0	3.0	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				38.3								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary

17: Monte Vista Ave & Arrow Rt

04/04/2024

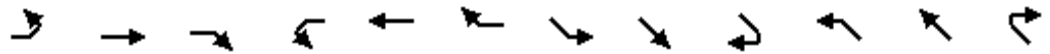


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷	↷	↶↷	↷↷		↶	↷↷	
Traffic Volume (veh/h)	96	566	41	119	448	69	84	639	210	103	711	170
Future Volume (veh/h)	96	566	41	119	448	69	84	639	210	103	711	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	596	43	125	472	73	88	673	221	108	748	179
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	914	66	141	521	442	215	1091	352	138	1240	294
Arrive On Green	0.07	0.27	0.27	0.08	0.28	0.28	0.06	0.29	0.29	0.08	0.30	0.30
Sat Flow, veh/h	1781	3361	242	1781	1870	1585	3456	3818	1234	1781	4122	976
Grp Volume(v), veh/h	101	315	324	125	472	73	88	599	295	108	616	311
Grp Sat Flow(s),veh/h/ln	1781	1777	1827	1781	1870	1585	1728	1702	1648	1781	1702	1695
Q Serve(g_s), s	3.5	9.9	9.9	4.4	15.3	2.2	1.5	9.6	9.8	3.8	9.7	9.9
Cycle Q Clear(g_c), s	3.5	9.9	9.9	4.4	15.3	2.2	1.5	9.6	9.8	3.8	9.7	9.9
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.75	1.00		0.58
Lane Grp Cap(c), veh/h	129	483	497	141	521	442	215	972	471	138	1024	510
V/C Ratio(X)	0.78	0.65	0.65	0.88	0.91	0.17	0.41	0.62	0.63	0.78	0.60	0.61
Avail Cap(c_a), veh/h	141	508	522	141	534	453	274	972	471	141	1024	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	20.3	20.3	28.7	21.9	17.2	28.4	19.5	19.6	28.5	18.8	18.9
Incr Delay (d2), s/veh	22.4	2.8	2.7	43.5	18.8	0.2	1.2	2.9	6.2	23.8	2.6	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.9	4.0	3.4	8.4	0.7	0.6	3.6	4.0	2.4	3.6	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.1	23.1	23.0	72.2	40.7	17.4	29.7	22.4	25.8	52.3	21.4	24.2
LnGrp LOS	D	C	C	E	D	B	C	C	C	D	C	C
Approach Vol, veh/h		740			670			982			1035	
Approach Delay, s/veh		26.9			44.0			24.1			25.5	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	22.5	9.5	21.6	8.4	23.5	9.1	22.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.8	11.8	6.4	11.9	3.5	11.9	5.5	17.3				
Green Ext Time (p_c), s	0.0	2.8	0.0	1.8	0.0	2.8	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay				29.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

18: Indian Hill Blvd & Harrison Ave

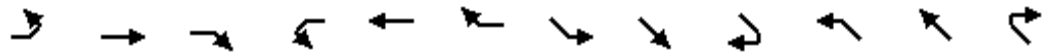
04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	59	54	47	20	54	27	45	813	68	36	679	21
Future Volume (veh/h)	59	54	47	20	54	27	45	813	68	36	679	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	59	51	22	59	29	49	884	74	39	738	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	43	357	57	118	357	74	1066	904	65	1019	32
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.04	0.57	0.57	0.04	0.56	0.56
Sat Flow, veh/h	0	191	1585	0	525	1585	1781	1870	1585	1781	1804	56
Grp Volume(v), veh/h	123	0	51	81	0	29	49	884	74	39	0	761
Grp Sat Flow(s),veh/h/ln	191	0	1585	525	0	1585	1781	1870	1585	1781	0	1860
Q Serve(g_s), s	0.0	0.0	2.1	0.0	0.0	1.2	2.2	30.8	1.7	1.7	0.0	24.1
Cycle Q Clear(g_c), s	18.0	0.0	2.1	18.0	0.0	1.2	2.2	30.8	1.7	1.7	0.0	24.1
Prop In Lane	0.52		1.00	0.27		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	111	0	357	175	0	357	74	1066	904	65	0	1051
V/C Ratio(X)	1.10	0.00	0.14	0.46	0.00	0.08	0.66	0.83	0.08	0.60	0.00	0.72
Avail Cap(c_a), veh/h	111	0	357	175	0	357	114	1066	904	111	0	1051
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.4	0.0	24.8	26.2	0.0	24.5	37.8	14.0	7.8	38.0	0.0	12.8
Incr Delay (d2), s/veh	115.8	0.0	0.2	1.9	0.0	0.1	9.8	7.5	0.2	8.8	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	0.8	1.3	0.0	0.4	1.1	13.8	0.6	0.9	0.0	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	149.2	0.0	25.0	28.0	0.0	24.6	47.5	21.5	7.9	46.8	0.0	17.2
LnGrp LOS	F	A	C	C	A	C	D	C	A	D	A	B
Approach Vol, veh/h		174			110			1007				800
Approach Delay, s/veh		112.8			27.1			21.8				18.6
Approach LOS		F			C			C				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	49.7		22.5	7.4	50.1		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	43.4		18.0	5.0	43.5		18.0				
Max Q Clear Time (g_c+I1), s	4.2	26.1		20.0	3.7	32.8		20.0				
Green Ext Time (p_c), s	0.0	5.5		0.0	0.0	5.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			28.4									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	47	40	49	46	37	91	26	666	35	19	712	21
Future Volume (veh/h)	47	40	49	46	37	91	26	666	35	19	712	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	43	53	50	40	99	28	724	38	21	774	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	53	478	93	50	478	55	839	711	44	799	24
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.03	0.45	0.45	0.02	0.44	0.44
Sat Flow, veh/h	0	174	1585	0	165	1585	1781	1870	1585	1781	1807	54
Grp Volume(v), veh/h	94	0	53	90	0	99	28	724	38	21	0	797
Grp Sat Flow(s),veh/h/ln	174	0	1585	165	0	1585	1781	1870	1585	1781	0	1861
Q Serve(g_s), s	0.0	0.0	1.4	0.0	0.0	2.8	0.9	20.9	0.8	0.7	0.0	25.1
Cycle Q Clear(g_c), s	18.1	0.0	1.4	18.1	0.0	2.8	0.9	20.9	0.8	0.7	0.0	25.1
Prop In Lane	0.54		1.00	0.56		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	145	0	478	143	0	478	55	839	711	44	0	823
V/C Ratio(X)	0.65	0.00	0.11	0.63	0.00	0.21	0.51	0.86	0.05	0.48	0.00	0.97
Avail Cap(c_a), veh/h	145	0	478	143	0	478	148	839	711	148	0	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	15.1	20.4	0.0	15.6	28.6	14.9	9.3	28.9	0.0	16.3
Incr Delay (d2), s/veh	9.6	0.0	0.1	8.5	0.0	0.2	7.0	11.4	0.1	7.9	0.0	24.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.5	1.6	0.0	1.0	0.5	10.4	0.3	0.4	0.0	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	15.2	28.9	0.0	15.8	35.6	26.3	9.5	36.8	0.0	40.9
LnGrp LOS	C	A	B	C	A	B	D	C	A	D	A	D
Approach Vol, veh/h		147			189			790				818
Approach Delay, s/veh		24.7			22.0			25.8				40.8
Approach LOS		C			C			C				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	31.0		22.6	6.0	31.4		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.4		18.1	5.0	23.4		18.1				
Max Q Clear Time (g_c+I1), s	2.9	27.1		20.1	2.7	22.9		20.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			31.7									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

19: 1st St & Indian Hill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	27	37	128	60	166	58	762	213	92	650	27
Future Volume (veh/h)	9	27	37	128	60	166	58	762	213	92	650	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	29	40	139	65	180	63	828	232	100	707	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	363	307	361	85	235	373	960	814	308	940	39
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.05	0.51	0.51	0.07	0.53	0.53
Sat Flow, veh/h	1135	1870	1585	1332	438	1214	1781	1870	1585	1781	1784	73
Grp Volume(v), veh/h	10	29	40	139	0	245	63	828	232	100	0	736
Grp Sat Flow(s),veh/h/ln	1135	1870	1585	1332	0	1652	1781	1870	1585	1781	0	1857
Q Serve(g_s), s	0.5	0.8	1.3	5.7	0.0	8.4	1.0	23.2	5.0	1.5	0.0	18.6
Cycle Q Clear(g_c), s	8.9	0.8	1.3	6.5	0.0	8.4	1.0	23.2	5.0	1.5	0.0	18.6
Prop In Lane	1.00		1.00	1.00		0.73	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	181	363	307	361	0	320	373	960	814	308	0	978
V/C Ratio(X)	0.06	0.08	0.13	0.38	0.00	0.76	0.17	0.86	0.29	0.32	0.00	0.75
Avail Cap(c_a), veh/h	301	561	476	503	0	496	427	960	814	336	0	978
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.66	0.66	0.66	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	19.8	20.0	22.5	0.0	22.9	8.7	12.7	8.3	11.1	0.0	11.1
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.7	0.0	3.8	0.1	7.0	0.6	0.6	0.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	0.5	1.8	0.0	3.4	0.3	9.6	1.5	0.5	0.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	19.9	20.2	23.1	0.0	26.7	8.9	19.7	8.9	11.7	0.0	16.5
LnGrp LOS	C	B	C	C	A	C	A	B	A	B	A	B
Approach Vol, veh/h		79			384			1123				836
Approach Delay, s/veh		21.0			25.4			16.9				15.9
Approach LOS		C			C			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	35.3		16.1	7.8	36.1		16.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	3.5	25.2		10.9	3.0	20.6		10.4				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	1.4		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				18.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

19: 1st St & Indian Hill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	84	88	133	71	171	103	599	210	140	663	86
Future Volume (veh/h)	29	84	88	133	71	171	103	599	210	140	663	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	91	96	145	77	186	112	651	228	152	721	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	403	341	330	105	253	300	903	766	368	794	102
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.05	0.32	0.32	0.08	0.49	0.49
Sat Flow, veh/h	1116	1870	1585	1196	486	1173	1781	1870	1585	1781	1623	209
Grp Volume(v), veh/h	32	91	96	145	0	263	112	651	228	152	0	814
Grp Sat Flow(s),veh/h/ln	1116	1870	1585	1196	0	1659	1781	1870	1585	1781	0	1833
Q Serve(g_s), s	1.7	2.4	3.0	6.8	0.0	8.9	1.8	18.4	6.5	2.5	0.0	24.5
Cycle Q Clear(g_c), s	10.5	2.4	3.0	9.2	0.0	8.9	1.8	18.4	6.5	2.5	0.0	24.5
Prop In Lane	1.00		1.00	1.00		0.71	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	195	403	341	330	0	357	300	903	766	368	0	897
V/C Ratio(X)	0.16	0.23	0.28	0.44	0.00	0.74	0.37	0.72	0.30	0.41	0.00	0.91
Avail Cap(c_a), veh/h	290	561	476	431	0	498	326	903	766	379	0	897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.62	0.62	0.62	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.9	19.4	19.7	23.2	0.0	22.0	12.5	16.7	12.7	10.1	0.0	14.1
Incr Delay (d2), s/veh	0.4	0.3	0.4	0.9	0.0	3.6	0.5	3.1	0.6	0.7	0.0	14.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.0	1.1	1.9	0.0	3.6	0.6	8.7	2.2	0.8	0.0	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	19.7	20.1	24.1	0.0	25.5	13.0	19.8	13.3	10.8	0.0	28.7
LnGrp LOS	C	B	C	C	A	C	B	B	B	B	A	C
Approach Vol, veh/h		219			408			991			966	
Approach Delay, s/veh		21.0			25.0			17.6			25.9	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	33.5		17.4	8.7	33.9		17.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	4.5	20.4		12.5	3.8	26.5		11.2				
Green Ext Time (p_c), s	0.0	1.5		0.4	0.0	0.0		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				22.1								
HCM 6th LOS				C								

Intersection	
Intersection Delay, s/veh	20.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	55	184	48	45	298	137	30	235	28	42	168	18
Future Vol, veh/h	55	184	48	45	298	137	30	235	28	42	168	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	200	52	49	324	149	33	255	30	46	183	20
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	15.2	20.3	25.7	20.2
HCM LOS	C	C	D	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	10%	100%	0%	0%	100%	0%	0%	18%
Vol Thru, %	80%	0%	100%	0%	0%	100%	0%	74%
Vol Right, %	10%	0%	0%	100%	0%	0%	100%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	293	55	184	48	45	298	137	228
LT Vol	30	55	0	0	45	0	0	42
Through Vol	235	0	184	0	0	298	0	168
RT Vol	28	0	0	48	0	0	137	18
Lane Flow Rate	318	60	200	52	49	324	149	248
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.683	0.142	0.442	0.105	0.11	0.681	0.283	0.549
Departure Headway (Hd)	7.721	8.578	7.956	7.225	8.089	7.57	6.842	7.977
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	465	421	450	493	441	476	521	449
Service Time	5.51	6.278	5.755	5.024	5.881	5.361	4.633	5.774
HCM Lane V/C Ratio	0.684	0.143	0.444	0.105	0.111	0.681	0.286	0.552
HCM Control Delay	25.7	12.7	17	10.9	11.9	25.2	12.3	20.2
HCM Lane LOS	D	B	C	B	B	D	B	C
HCM 95th-tile Q	5.1	0.5	2.2	0.3	0.4	5	1.2	3.2

Intersection	
Intersection Delay, s/veh	79.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	49	335	76	71	262	91	45	139	88	116	313	57
Future Vol, veh/h	49	335	76	71	262	91	45	139	88	116	313	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	364	83	77	285	99	49	151	96	126	340	62
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	44.6	27	36	182.7
HCM LOS	E	D	E	F

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	17%	100%	0%	0%	100%	0%	0%	24%
Vol Thru, %	51%	0%	100%	0%	0%	100%	0%	64%
Vol Right, %	32%	0%	0%	100%	0%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	272	49	335	76	71	262	91	486
LT Vol	45	49	0	0	71	0	0	116
Through Vol	139	0	335	0	0	262	0	313
RT Vol	88	0	0	76	0	0	91	57
Lane Flow Rate	296	53	364	83	77	285	99	528
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.739	0.138	0.894	0.187	0.204	0.713	0.228	1.311
Departure Headway (Hd)	9.891	10.377	9.842	9.093	10.609	10.072	9.322	8.931
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	370	348	371	397	340	362	388	407
Service Time	7.591	8.077	7.542	6.793	8.309	7.772	7.022	6.705
HCM Lane V/C Ratio	0.8	0.152	0.981	0.209	0.226	0.787	0.255	1.297
HCM Control Delay	36	14.7	56	13.9	16	34.2	14.8	182.7
HCM Lane LOS	E	B	F	B	C	D	B	F
HCM 95th-tile Q	5.7	0.5	8.9	0.7	0.8	5.3	0.9	23.8

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	0	126	8	0	1	399	711	7	1	452	126
Future Volume (veh/h)	65	0	126	8	0	1	399	711	7	1	452	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	0	137	9	0	1	434	773	8	1	491	137
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	201	171	22	0	19	634	2685	28	539	2648	1181
Arrive On Green	0.11	0.00	0.11	0.01	0.00	0.01	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	798	3603	37	692	3554	1585
Grp Volume(v), veh/h	71	0	137	9	0	1	434	381	400	1	491	137
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	798	1777	1864	692	1777	1585
Q Serve(g_s), s	3.7	0.0	8.4	0.5	0.0	0.1	35.3	7.0	7.0	0.0	4.1	2.4
Cycle Q Clear(g_c), s	3.7	0.0	8.4	0.5	0.0	0.1	39.4	7.0	7.0	7.0	4.1	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	192	201	171	22	0	19	634	1324	1389	539	2648	1181
V/C Ratio(X)	0.37	0.00	0.80	0.42	0.00	0.05	0.68	0.29	0.29	0.00	0.19	0.12
Avail Cap(c_a), veh/h	321	337	285	321	0	285	634	1324	1389	539	2648	1181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	41.5	0.0	43.6	49.0	0.0	48.8	9.6	4.1	4.1	5.3	3.8	3.6
Incr Delay (d2), s/veh	1.2	0.0	8.5	12.3	0.0	1.1	5.9	0.5	0.5	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.7	0.3	0.0	0.0	5.7	2.0	2.1	0.0	1.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	0.0	52.0	61.3	0.0	49.9	15.5	4.7	4.7	5.3	3.9	3.7
LnGrp LOS	D	A	D	E	A	D	B	A	A	A	A	A
Approach Vol, veh/h		208			10			1215			629	
Approach Delay, s/veh		48.8			60.2			8.5			3.8	
Approach LOS		D			E			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		79.0		15.3		79.0		5.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		50.5		18.0		50.5		18.0				
Max Q Clear Time (g_c+I1), s		41.4		10.4		9.0		2.5				
Green Ext Time (p_c), s		4.9		0.4		3.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				11.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	5	314	4	0	1	147	419	7	2	554	213
Future Volume (veh/h)	250	5	314	4	0	1	147	419	7	2	554	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	272	5	341	4	0	1	160	455	8	2	602	232
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	422	443	376	12	0	10	419	2059	36	574	2048	914
Arrive On Green	0.24	0.24	0.24	0.01	0.00	0.01	0.58	0.58	0.58	0.58	0.58	0.58
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	658	3573	63	929	3554	1585
Grp Volume(v), veh/h	272	5	341	4	0	1	160	226	237	2	602	232
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	658	1777	1859	929	1777	1585
Q Serve(g_s), s	10.3	0.2	15.7	0.2	0.0	0.0	12.3	4.6	4.6	0.1	6.5	5.4
Cycle Q Clear(g_c), s	10.3	0.2	15.7	0.2	0.0	0.0	18.8	4.6	4.6	4.7	6.5	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	422	443	376	12	0	10	419	1024	1072	574	2048	914
V/C Ratio(X)	0.64	0.01	0.91	0.34	0.00	0.10	0.38	0.22	0.22	0.00	0.29	0.25
Avail Cap(c_a), veh/h	428	449	380	428	0	380	419	1024	1072	574	2048	914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	25.8	21.9	27.8	37.1	0.0	37.0	12.9	7.7	7.7	8.9	8.1	7.9
Incr Delay (d2), s/veh	3.3	0.0	24.7	16.2	0.0	3.9	2.6	0.5	0.5	0.0	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.1	8.2	0.1	0.0	0.0	1.8	1.6	1.6	0.0	2.1	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	21.9	52.5	53.3	0.0	40.9	15.5	8.2	8.2	8.9	8.4	8.4
LnGrp LOS	C	C	D	D	A	D	B	A	A	A	A	A
Approach Vol, veh/h		618			5			623			836	
Approach Delay, s/veh		41.9			50.8			10.1			8.4	
Approach LOS		D			D			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		47.7		22.3		47.7		5.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		25.5		18.0		25.5		18.0				
Max Q Clear Time (g_c+I1), s		20.8		17.7		8.5		2.2				
Green Ext Time (p_c), s		1.7		0.1		4.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			19.0									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 22: Indian Hill Blvd & Arrow Hwy

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘	↗↗	↘	↘	↗↗	↘
Traffic Volume (veh/h)	186	567	229	159	928	140	223	717	162	166	725	155
Future Volume (veh/h)	186	567	229	159	928	140	223	717	162	166	725	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	616	249	173	1009	152	242	779	176	180	788	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	1090	486	211	1159	517	251	981	437	176	681	145
Arrive On Green	0.10	0.31	0.31	0.12	0.33	0.33	0.14	0.28	0.28	0.10	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	2914	621
Grp Volume(v), veh/h	202	616	249	173	1009	152	242	779	176	180	480	476
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1759
Q Serve(g_s), s	8.9	13.1	11.6	8.5	24.0	6.4	12.2	18.3	8.1	8.9	21.0	21.0
Cycle Q Clear(g_c), s	8.9	13.1	11.6	8.5	24.0	6.4	12.2	18.3	8.1	8.9	21.0	21.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	176	1090	486	211	1159	517	251	981	437	176	415	411
V/C Ratio(X)	1.15	0.57	0.51	0.82	0.87	0.29	0.96	0.79	0.40	1.02	1.16	1.16
Avail Cap(c_a), veh/h	176	1090	486	362	1244	555	251	981	437	176	415	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	40.5	26.2	25.7	38.7	28.5	22.6	38.4	30.2	26.5	40.5	34.5	34.5
Incr Delay (d2), s/veh	112.8	0.7	0.9	5.4	4.6	0.2	46.3	6.6	2.7	62.1	88.1	88.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	5.5	4.4	4.0	10.6	2.4	8.4	8.5	3.3	6.8	18.9	18.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	153.3	26.8	26.6	44.1	33.2	22.8	84.7	36.8	29.3	102.6	122.6	122.8
LnGrp LOS	F	C	C	D	C	C	F	D	C	F	F	F
Approach Vol, veh/h		1067			1334			1197			1136	
Approach Delay, s/veh		50.7			33.4			45.4			119.5	
Approach LOS		D			C			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	29.3	15.2	32.1	17.2	25.5	13.4	33.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.9	22.7	18.3	22.1	12.7	18.9	8.9	31.5				
Max Q Clear Time (g_c+I1), s	10.9	20.3	10.5	15.1	14.2	23.0	10.9	26.0				
Green Ext Time (p_c), s	0.0	1.4	0.3	2.9	0.0	0.0	0.0	3.3				
Intersection Summary												
HCM 6th Ctrl Delay			61.0									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary
 22: Indian Hill Blvd & Arrow Hwy

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↗	↗	↗	↗↗	↗	↗	↗↗	↗	↗	↗↗	↗
Traffic Volume (veh/h)	218	1056	184	189	632	160	196	755	166	178	692	135
Future Volume (veh/h)	218	1056	184	189	632	160	196	755	166	178	692	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	237	1148	200	205	687	174	213	821	180	193	752	147
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	263	1277	570	229	1210	540	215	842	376	222	715	140
Arrive On Green	0.15	0.36	0.36	0.26	0.68	0.68	0.12	0.24	0.24	0.04	0.08	0.08
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	2964	579
Grp Volume(v), veh/h	237	1148	200	205	687	174	213	821	180	193	451	448
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1766
Q Serve(g_s), s	15.7	36.7	11.1	13.3	12.1	5.4	14.3	27.5	11.7	12.9	28.9	28.9
Cycle Q Clear(g_c), s	15.7	36.7	11.1	13.3	12.1	5.4	14.3	27.5	11.7	12.9	28.9	28.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	263	1277	570	229	1210	540	215	842	376	222	428	426
V/C Ratio(X)	0.90	0.90	0.35	0.89	0.57	0.32	0.99	0.97	0.48	0.87	1.05	1.05
Avail Cap(c_a), veh/h	266	1347	601	260	1336	596	215	842	376	245	428	426
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00	0.54	0.54	0.54
Uniform Delay (d), s/veh	50.3	36.4	28.2	43.8	14.6	13.5	52.7	45.4	39.4	56.5	55.2	55.2
Incr Delay (d2), s/veh	30.8	8.1	0.4	25.8	0.4	0.3	58.2	25.4	4.3	15.2	46.5	46.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	17.1	4.3	6.7	3.6	1.7	9.9	15.0	5.0	7.1	19.4	19.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.1	44.5	28.5	69.6	15.0	13.8	110.9	70.8	43.7	71.8	101.8	102.0
LnGrp LOS	F	D	C	E	B	B	F	E	D	E	F	F
Approach Vol, veh/h		1585			1066			1214			1092	
Approach Delay, s/veh		48.0			25.3			73.8			96.5	
Approach LOS		D			C			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.5	32.9	19.9	47.6	19.0	33.4	22.2	45.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	16.5	22.5	17.5	45.5	14.5	24.5	17.9	45.1				
Max Q Clear Time (g_c+I1), s	14.9	29.5	15.3	38.7	16.3	30.9	17.7	14.1				
Green Ext Time (p_c), s	0.1	0.0	0.1	4.5	0.0	0.0	0.0	6.0				
Intersection Summary												
HCM 6th Ctrl Delay			60.1									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	790	50	56	1087	79	62	125	43	119	93	65
Future Volume (veh/h)	54	790	50	56	1087	79	62	125	43	119	93	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	859	54	61	1182	86	67	136	47	129	101	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	1648	104	310	1630	118	194	368	112	558	682	578
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	437	3395	213	611	3359	244	323	1009	308	1201	1870	1585
Grp Volume(v), veh/h	59	450	463	61	625	643	250	0	0	129	101	71
Grp Sat Flow(s),veh/h/ln	437	1777	1832	611	1777	1826	1640	0	0	1201	1870	1585
Q Serve(g_s), s	7.4	10.5	10.5	4.6	16.7	16.8	1.0	0.0	0.0	0.0	2.2	1.8
Cycle Q Clear(g_c), s	24.2	10.5	10.5	15.0	16.7	16.8	6.2	0.0	0.0	4.6	2.2	1.8
Prop In Lane	1.00		0.12	1.00		0.13	0.27		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	210	862	889	310	862	886	674	0	0	558	682	578
V/C Ratio(X)	0.28	0.52	0.52	0.20	0.72	0.73	0.37	0.00	0.00	0.23	0.15	0.12
Avail Cap(c_a), veh/h	227	933	962	334	933	959	674	0	0	558	682	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	0.43	0.43	0.43	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	10.6	10.6	15.8	12.3	12.3	14.1	0.0	0.0	13.6	12.8	12.7
Incr Delay (d2), s/veh	0.5	0.4	0.4	0.1	1.1	1.1	1.6	0.0	0.0	1.0	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.5	3.6	0.6	5.8	5.9	2.6	0.0	0.0	1.3	0.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	11.0	11.0	16.0	13.4	13.4	15.6	0.0	0.0	14.5	13.3	13.1
LnGrp LOS	C	B	B	B	B	B	B	A	A	B	B	B
Approach Vol, veh/h		972			1329			250			301	
Approach Delay, s/veh		11.7			13.5			15.6			13.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.4		33.6		26.4		33.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		8.2		26.2		6.6		18.8				
Green Ext Time (p_c), s		1.1		2.9		1.0		7.3				
Intersection Summary												
HCM 6th Ctrl Delay				13.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1211	44	37	823	79	49	50	56	129	122	111
Future Volume (veh/h)	66	1211	44	37	823	79	49	50	56	129	122	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	1316	48	40	895	86	53	54	61	140	133	121
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	275	1644	60	195	1540	148	228	232	217	636	711	602
Arrive On Green	0.63	0.63	0.63	0.47	0.47	0.47	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	574	3497	127	399	3276	315	393	610	572	1277	1870	1585
Grp Volume(v), veh/h	72	668	696	40	485	496	168	0	0	140	133	121
Grp Sat Flow(s),veh/h/ln	574	1777	1847	399	1777	1814	1575	0	0	1277	1870	1585
Q Serve(g_s), s	5.8	16.9	17.0	5.4	12.0	12.0	0.0	0.0	0.0	0.0	2.8	3.1
Cycle Q Clear(g_c), s	17.7	16.9	17.0	22.4	12.0	12.0	3.9	0.0	0.0	3.3	2.8	3.1
Prop In Lane	1.00		0.07	1.00		0.17	0.32		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	275	835	868	195	835	852	678	0	0	636	711	602
V/C Ratio(X)	0.26	0.80	0.80	0.21	0.58	0.58	0.25	0.00	0.00	0.22	0.19	0.20
Avail Cap(c_a), veh/h	307	933	970	216	933	952	678	0	0	636	711	602
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	0.74	0.74	0.74	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	9.1	9.1	22.0	11.6	11.6	12.8	0.0	0.0	12.5	12.4	12.5
Incr Delay (d2), s/veh	0.2	2.2	2.1	0.4	0.5	0.5	0.9	0.0	0.0	0.8	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.3	4.5	0.5	4.1	4.2	1.6	0.0	0.0	1.3	1.2	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	11.3	11.3	22.4	12.1	12.1	13.6	0.0	0.0	13.3	13.0	13.2
LnGrp LOS	B	B	B	C	B	B	B	A	A	B	B	B
Approach Vol, veh/h		1436			1021			168			394	
Approach Delay, s/veh		11.4			12.5			13.6			13.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.3		32.7		27.3		32.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		5.9		19.7		5.3		24.4				
Green Ext Time (p_c), s		0.7		7.4		1.4		3.8				
Intersection Summary												
HCM 6th Ctrl Delay				12.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	316	547	23	49	964	317	110	435	36	117	248	255
Future Volume (veh/h)	316	547	23	49	964	317	110	435	36	117	248	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	343	595	25	53	1048	345	120	473	39	127	270	277
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	351	1869	78	68	999	325	139	595	49	144	340	288
Arrive On Green	0.20	0.54	0.54	0.04	0.38	0.38	0.08	0.18	0.18	0.08	0.18	0.18
Sat Flow, veh/h	1781	3475	146	1781	2634	858	1781	3325	273	1781	1870	1585
Grp Volume(v), veh/h	343	304	316	53	703	690	120	252	260	127	270	277
Grp Sat Flow(s),veh/h/ln	1781	1777	1844	1781	1777	1716	1781	1777	1821	1781	1870	1585
Q Serve(g_s), s	21.1	10.5	10.5	3.2	41.7	41.7	7.3	14.9	15.0	7.8	15.2	19.1
Cycle Q Clear(g_c), s	21.1	10.5	10.5	3.2	41.7	41.7	7.3	14.9	15.0	7.8	15.2	19.1
Prop In Lane	1.00		0.08	1.00		0.50	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	351	956	992	68	674	650	139	318	326	144	340	288
V/C Ratio(X)	0.98	0.32	0.32	0.78	1.04	1.06	0.86	0.79	0.80	0.88	0.79	0.96
Avail Cap(c_a), veh/h	351	956	992	143	674	650	139	318	326	144	340	288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	14.2	14.2	52.4	34.1	34.2	50.1	43.2	43.2	50.0	43.0	44.6
Incr Delay (d2), s/veh	37.9	0.2	0.2	16.8	46.7	52.4	38.8	18.1	18.1	42.1	17.2	44.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	3.9	4.1	1.7	25.7	25.8	4.7	8.0	8.3	5.2	8.7	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.8	14.3	14.3	69.2	80.9	86.5	88.9	61.3	61.3	92.2	60.2	88.6
LnGrp LOS	F	B	B	E	F	F	F	E	E	F	E	F
Approach Vol, veh/h		963			1446			632			674	
Approach Delay, s/veh		38.3			83.1			66.5			77.9	
Approach LOS		D			F			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	24.2	8.7	63.7	13.1	24.5	26.2	46.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.9	19.7	8.8	54.6	8.6	20.0	21.7	41.7				
Max Q Clear Time (g_c+I1), s	9.8	17.0	5.2	12.5	9.3	21.1	23.1	43.7				
Green Ext Time (p_c), s	0.0	0.8	0.0	3.7	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				67.8								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕		↵	↕		↵	↕		↵	↕	↵
Traffic Volume (veh/h)	202	1193	60	71	636	127	80	251	66	247	406	275
Future Volume (veh/h)	202	1193	60	71	636	127	80	251	66	247	406	275
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	220	1297	65	77	691	138	87	273	72	268	441	299
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	1282	64	99	839	167	109	603	156	279	582	493
Arrive On Green	0.14	0.37	0.37	0.06	0.28	0.28	0.06	0.22	0.22	0.16	0.31	0.31
Sat Flow, veh/h	1781	3444	172	1781	2952	589	1781	2794	723	1781	1870	1585
Grp Volume(v), veh/h	220	668	694	77	416	413	87	172	173	268	441	299
Grp Sat Flow(s),veh/h/ln	1781	1777	1839	1781	1777	1764	1781	1777	1740	1781	1870	1585
Q Serve(g_s), s	10.9	33.5	33.5	3.8	19.7	19.7	4.3	7.6	7.8	13.4	19.1	14.4
Cycle Q Clear(g_c), s	10.9	33.5	33.5	3.8	19.7	19.7	4.3	7.6	7.8	13.4	19.1	14.4
Prop In Lane	1.00		0.09	1.00		0.33	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	256	661	685	99	505	501	109	383	375	279	582	493
V/C Ratio(X)	0.86	1.01	1.01	0.78	0.82	0.82	0.80	0.45	0.46	0.96	0.76	0.61
Avail Cap(c_a), veh/h	291	661	685	115	505	501	109	383	375	279	582	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	28.2	28.3	42.0	30.1	30.1	41.7	30.6	30.7	37.7	27.9	26.3
Incr Delay (d2), s/veh	13.5	29.9	30.2	25.0	10.6	10.8	33.0	3.8	4.0	43.0	8.9	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	18.3	19.0	2.3	9.4	9.4	2.9	3.5	3.6	9.1	9.8	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.1	58.2	58.4	66.9	40.7	40.9	74.7	34.4	34.8	80.6	36.9	31.8
LnGrp LOS	D	F	F	E	D	D	E	C	C	F	D	C
Approach Vol, veh/h		1582			906			432			1008	
Approach Delay, s/veh		57.3			43.0			42.7			47.0	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	23.9	9.5	38.0	10.0	32.5	17.4	30.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	14.1	18.6	5.8	33.5	5.5	27.2	14.7	24.6				
Max Q Clear Time (g_c+I1), s	15.4	9.8	5.8	35.5	6.3	21.1	12.9	21.7				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	2.1	0.1	1.4				
Intersection Summary												
HCM 6th Ctrl Delay			49.8									
HCM 6th LOS			D									

HCM 6th TWSC
25: Claremont Blvd & 9th St

04/17/2024

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT		T	TT	TT	T
Traffic Vol, veh/h	30	122	49	432	404	22
Future Vol, veh/h	30	122	49	432	404	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	133	53	470	439	24

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	780	220	463	0	-	0
Stage 1	439	-	-	-	-	-
Stage 2	341	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	332	784	1095	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	692	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	316	784	1095	-	-	-
Mov Cap-2 Maneuver	316	-	-	-	-	-
Stage 1	587	-	-	-	-	-
Stage 2	692	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1095	-	607	-	-
HCM Lane V/C Ratio	0.049	-	0.272	-	-
HCM Control Delay (s)	8.5	-	13.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.1	-	-

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↑↑	↑↑	↔
Traffic Vol, veh/h	44	122	59	481	445	30
Future Vol, veh/h	44	122	59	481	445	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	133	64	523	484	33

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	874	242	517	0	-	0
Stage 1	484	-	-	-	-	-
Stage 2	390	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	289	759	1045	-	-	-
Stage 1	585	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	271	759	1045	-	-	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	653	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.7	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1045	-	514	-	-
HCM Lane V/C Ratio	0.061	-	0.351	-	-
HCM Control Delay (s)	8.7	-	15.7	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.6	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	50	0	0	30	0	0
Future Vol, veh/h	50	0	0	30	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	0	0	33	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	27
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	-	0	1042
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	1042
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	38	0	0	57	0	0
Future Vol, veh/h	38	0	0	57	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	0	0	62	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 21
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	- 0	- 0 1051
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 1051
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	30	0	0	16
Future Vol, veh/h	0	0	30	0	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	33	0	0	17

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	17	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1058	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	1058	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	18	0	0	32
Future Vol, veh/h	0	0	18	0	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	20	0	0	35

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	10	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1069	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1069	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	87	50	0
Future Vol, veh/h	0	0	0	87	50	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	92	53	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	27	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	883	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	883	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

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

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	68	100	0
Future Vol, veh/h	0	0	0	68	100	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	72	105	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	53	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	851	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	851	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

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

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↑	↖	↖	↕		↖	↖	↖
Traffic Volume (veh/h)	0	0	0	124	0	318	0	522	52	93	1065	1
Future Volume (veh/h)	0	0	0	124	0	318	0	522	52	93	1065	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	131	0	335	0	549	55	98	1121	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	137	0	167	489	414	4	1241	124	263	2900	3
Arrive On Green	0.00	0.00	0.00	0.09	0.00	0.26	0.00	0.38	0.38	0.08	0.55	0.55
Sat Flow, veh/h	0	1870	0	1781	1870	1585	1781	3262	326	3456	5269	5
Grp Volume(v), veh/h	0	0	0	131	0	335	0	298	306	98	724	398
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1812	1728	1702	1870
Q Serve(g_s), s	0.0	0.0	0.0	3.4	0.0	9.5	0.0	6.0	6.0	1.3	5.8	5.8
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.4	0.0	9.5	0.0	6.0	6.0	1.3	5.8	5.8
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	0	137	0	167	489	414	4	676	689	263	1874	1029
V/C Ratio(X)	0.00	0.00	0.00	0.78	0.00	0.81	0.00	0.44	0.44	0.37	0.39	0.39
Avail Cap(c_a), veh/h	0	704	0	216	1106	937	186	676	689	361	1874	1029
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	21.2	0.0	16.5	0.0	11.0	11.1	21.0	6.1	6.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	13.1	0.0	3.8	0.0	2.1	2.1	0.9	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.9	0.0	3.4	0.0	2.1	2.1	0.5	1.6	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	34.3	0.0	20.3	0.0	13.1	13.1	21.9	6.7	7.2
LnGrp LOS	A	A	A	C	A	C	A	B	B	C	A	A
Approach Vol, veh/h		0			466			604			1220	
Approach Delay, s/veh		0.0			24.3			13.1			8.1	
Approach LOS					C			B			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	22.7	9.0	8.0	0.0	30.8		17.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.2	5.8	18.0	5.0	18.2		28.3				
Max Q Clear Time (g_c+I1), s	3.3	8.0	5.4	0.0	0.0	7.8		11.5				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	5.3		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				12.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↖	↖	↕		↖	↗	↖
Traffic Volume (veh/h)	0	0	0	106	0	127	1	924	72	34	848	0
Future Volume (veh/h)	0	0	0	106	0	127	1	924	72	34	848	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	112	0	134	1	973	76	36	893	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	3	0	143	214	182	3	2193	171	124	3529	0
Arrive On Green	0.00	0.00	0.00	0.08	0.00	0.11	0.00	0.66	0.66	0.04	0.69	0.00
Sat Flow, veh/h	0	-38923	0	1781	1870	1585	1781	3339	261	3456	5274	0
Grp Volume(v), veh/h	0	0	0	112	0	134	1	518	531	36	893	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1823	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	4.3	0.0	5.7	0.0	9.9	9.9	0.7	4.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.3	0.0	5.7	0.0	9.9	9.9	0.7	4.6	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	0	3	0	143	214	182	3	1167	1197	124	3529	0
V/C Ratio(X)	0.00	0.00	0.00	0.79	0.00	0.74	0.39	0.44	0.44	0.29	0.25	0.00
Avail Cap(c_a), veh/h	0	481	0	145	753	639	127	1167	1197	247	3529	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	31.6	0.0	30.0	34.9	5.8	5.8	32.9	4.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	23.8	0.0	5.7	77.1	1.2	1.2	1.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.7	0.0	2.4	0.1	3.2	3.2	0.3	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	55.4	0.0	35.7	112.1	7.1	7.0	33.8	4.2	0.0
LnGrp LOS	A	A	A	E	A	D	F	A	A	C	A	A
Approach Vol, veh/h		0			246			1050			929	
Approach Delay, s/veh		0.0			44.7			7.1			5.3	
Approach LOS					D			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	50.5	10.1	2.4	4.6	52.9		12.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.3	5.7	18.0	5.0	23.3		28.2				
Max Q Clear Time (g_c+I1), s	2.7	11.9	6.3	0.0	2.0	6.6		7.7				
Green Ext Time (p_c), s	0.0	5.2	0.0	0.0	0.0	5.8		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				10.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

04/04/2024



























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	43	510	111	288	842	63	155	92	256	69	115	79
Future Volume (veh/h)	43	510	111	288	842	63	155	92	256	69	115	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	554	121	313	915	68	168	100	278	75	125	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	775	346	312	1236	551	517	678	605	372	793	509
Arrive On Green	0.05	0.22	0.22	0.17	0.35	0.35	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1171	1777	1585	1005	2076	1332
Grp Volume(v), veh/h	47	554	121	313	915	68	168	100	278	75	106	105
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1171	1777	1585	1005	1777	1631
Q Serve(g_s), s	1.6	8.7	3.9	10.5	13.6	1.8	6.6	2.2	7.9	3.6	2.3	2.6
Cycle Q Clear(g_c), s	1.6	8.7	3.9	10.5	13.6	1.8	9.2	2.2	7.9	11.5	2.3	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	81	775	346	312	1236	551	517	678	605	372	678	623
V/C Ratio(X)	0.58	0.71	0.35	1.00	0.74	0.12	0.32	0.15	0.46	0.20	0.16	0.17
Avail Cap(c_a), veh/h	148	1066	476	312	1392	621	517	678	605	372	678	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.68	0.68	0.68	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	21.7	19.9	24.8	17.2	13.3	15.3	12.1	13.9	18.2	12.2	12.3
Incr Delay (d2), s/veh	6.5	1.4	0.6	43.0	1.3	0.1	1.3	0.4	1.9	1.2	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.5	1.4	7.8	5.1	0.6	1.8	0.8	2.8	0.9	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	23.1	20.5	67.8	18.5	13.4	16.6	12.5	15.8	19.4	12.7	12.8
LnGrp LOS	C	C	C	F	B	B	B	B	B	B	B	B
Approach Vol, veh/h		722			1296			546			286	
Approach Delay, s/veh		23.4			30.1			15.5			14.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.4	15.0	17.6		27.4	7.2	25.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	10.5	18.0		18.0	5.0	23.5				
Max Q Clear Time (g_c+I1), s		11.2	12.5	10.7		13.5	3.6	15.6				
Green Ext Time (p_c), s		1.7	0.0	2.4		0.6	0.0	3.9				
Intersection Summary												
HCM 6th Ctrl Delay				24.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

04/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	702	147	303	884	56	157	95	246	64	137	70
Future Volume (veh/h)	42	702	147	303	884	56	157	95	246	64	137	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	763	160	329	961	61	171	103	267	70	149	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	914	408	378	1513	675	427	574	512	299	749	363
Arrive On Green	0.04	0.26	0.26	0.21	0.43	0.43	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1156	1777	1585	1012	2320	1125
Grp Volume(v), veh/h	46	763	160	329	961	61	171	103	267	70	112	113
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1156	1777	1585	1012	1777	1668
Q Serve(g_s), s	1.6	13.2	5.4	11.6	13.8	1.5	8.2	2.7	8.9	3.9	3.0	3.2
Cycle Q Clear(g_c), s	1.6	13.2	5.4	11.6	13.8	1.5	11.4	2.7	8.9	12.8	3.0	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	77	914	408	378	1513	675	427	574	512	299	574	539
V/C Ratio(X)	0.60	0.83	0.39	0.87	0.64	0.09	0.40	0.18	0.52	0.23	0.20	0.21
Avail Cap(c_a), veh/h	164	984	439	425	1513	675	427	574	512	299	574	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	0.84	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	22.8	19.9	24.8	14.7	11.1	20.1	15.8	17.9	23.1	15.9	16.0
Incr Delay (d2), s/veh	7.1	6.0	0.6	13.4	0.7	0.0	2.3	0.6	3.2	1.8	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.9	1.9	6.0	5.1	0.5	2.3	1.1	3.5	1.0	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	28.8	20.6	38.1	15.4	11.2	22.4	16.4	21.1	25.0	16.7	16.9
LnGrp LOS	D	C	C	D	B	B	C	B	C	C	B	B
Approach Vol, veh/h		969			1351			541			295	
Approach Delay, s/veh		27.9			20.7			20.6			18.7	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.5	18.3	21.2		25.5	7.3	32.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	15.5	18.0		18.0	6.0	27.5				
Max Q Clear Time (g_c+I1), s		13.4	13.6	15.2		14.8	3.6	15.8				
Green Ext Time (p_c), s		1.3	0.2	1.5		0.5	0.0	5.4				
Intersection Summary												
HCM 6th Ctrl Delay				22.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

























04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	92	738	77	134	979	153	117	88	97	148	81	167
Future Volume (veh/h)	92	738	77	134	979	153	117	88	97	148	81	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	802	84	146	1064	166	127	96	105	161	88	182
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	1114	497	185	1227	547	547	669	567	540	669	567
Arrive On Green	0.07	0.31	0.31	0.10	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1309	1870	1585	1300	1870	1585
Grp Volume(v), veh/h	100	802	84	146	1064	166	127	96	105	161	88	182
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1309	1870	1585	1300	1870	1585
Q Serve(g_s), s	3.3	12.0	2.3	4.8	16.8	4.6	4.3	2.1	2.7	5.7	1.9	5.0
Cycle Q Clear(g_c), s	3.3	12.0	2.3	4.8	16.8	4.6	6.2	2.1	2.7	7.8	1.9	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	1114	497	185	1227	547	547	669	567	540	669	567
V/C Ratio(X)	0.78	0.72	0.17	0.79	0.87	0.30	0.23	0.14	0.19	0.30	0.13	0.32
Avail Cap(c_a), veh/h	181	1190	531	226	1279	571	547	669	567	540	669	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.66	0.66	0.66	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	18.3	14.9	26.2	18.3	14.4	15.1	13.1	13.3	15.7	13.0	14.0
Incr Delay (d2), s/veh	10.8	1.6	0.1	9.8	4.3	0.2	0.8	0.4	0.6	1.4	0.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	4.7	0.8	2.4	6.8	1.5	1.3	0.9	1.0	1.8	0.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	19.9	15.1	36.0	22.7	14.6	15.9	13.4	13.8	17.1	13.4	15.5
LnGrp LOS	D	B	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		986			1376			328			431	
Approach Delay, s/veh		21.3			23.1			14.5			15.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.0	10.7	23.3		26.0	8.8	25.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.8	7.6	20.1		18.8	6.1	21.6				
Max Q Clear Time (g_c+I1), s		8.2	6.8	14.0		9.8	5.3	18.8				
Green Ext Time (p_c), s		0.9	0.0	2.9		1.1	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay				20.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

04/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	923	149	182	950	96	139	83	68	87	138	168
Future Volume (veh/h)	114	923	149	182	950	96	139	83	68	87	138	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	1003	162	198	1033	104	151	90	74	95	150	183
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	1093	488	243	1262	563	458	620	525	509	620	525
Arrive On Green	0.09	0.31	0.31	0.14	0.36	0.36	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1237	1870	1585	1307	1870	1585
Grp Volume(v), veh/h	124	1003	162	198	1033	104	151	90	74	95	150	183
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1237	1870	1585	1307	1870	1585
Q Serve(g_s), s	4.1	16.3	4.7	6.5	15.9	2.7	6.1	2.0	2.0	3.3	3.5	5.2
Cycle Q Clear(g_c), s	4.1	16.3	4.7	6.5	15.9	2.7	9.6	2.0	2.0	5.3	3.5	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	1093	488	243	1262	563	458	620	525	509	620	525
V/C Ratio(X)	0.79	0.92	0.33	0.82	0.82	0.18	0.33	0.15	0.14	0.19	0.24	0.35
Avail Cap(c_a), veh/h	163	1096	489	252	1273	568	458	620	525	509	620	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.57	0.57	0.57	0.73	0.73	0.73	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.8	20.0	16.0	25.2	17.6	13.4	18.1	14.1	14.1	16.0	14.6	15.2
Incr Delay (d2), s/veh	13.0	7.5	0.2	13.7	3.2	0.1	1.6	0.4	0.5	0.8	0.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	7.2	1.6	3.5	6.3	0.9	1.8	0.9	0.7	1.0	1.5	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	27.6	16.2	38.9	20.8	13.5	19.7	14.5	14.6	16.8	15.5	17.0
LnGrp LOS	D	C	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		1289			1335			315			428	
Approach Delay, s/veh		27.3			22.9			17.0			16.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.4	12.7	23.0		24.4	9.8	25.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	8.5	18.5		19.5	5.5	21.5				
Max Q Clear Time (g_c+I1), s		11.6	8.5	18.3		7.3	6.1	17.9				
Green Ext Time (p_c), s		0.8	0.0	0.1		1.4	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				23.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘↘	↗↗	↘	↘	↗	↘	↘	↗↗	↘
Traffic Volume (veh/h)	56	762	254	496	889	132	358	138	529	142	108	99
Future Volume (veh/h)	56	762	254	496	889	132	358	138	529	142	108	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	828	276	539	966	143	389	150	575	154	117	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	910	406	610	1382	616	524	581	492	347	417	352
Arrive On Green	0.04	0.26	0.26	0.18	0.39	0.39	0.14	0.31	0.31	0.06	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1827	1543
Grp Volume(v), veh/h	61	828	276	539	966	143	389	150	575	154	113	112
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1593
Q Serve(g_s), s	3.1	20.3	14.1	13.7	20.5	5.5	12.5	5.4	27.9	5.1	4.7	5.2
Cycle Q Clear(g_c), s	3.1	20.3	14.1	13.7	20.5	5.5	12.5	5.4	27.9	5.1	4.7	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Lane Grp Cap(c), veh/h	78	910	406	610	1382	616	524	581	492	347	406	364
V/C Ratio(X)	0.78	0.91	0.68	0.88	0.70	0.23	0.74	0.26	1.17	0.44	0.28	0.31
Avail Cap(c_a), veh/h	115	928	414	634	1382	616	524	581	492	347	406	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	32.5	30.1	36.1	23.1	18.5	23.3	23.3	31.0	25.3	28.6	28.8
Incr Delay (d2), s/veh	14.8	10.4	3.5	13.6	1.6	0.2	5.3	1.0	94.8	0.9	1.7	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.4	5.4	6.6	8.1	1.9	6.7	2.4	22.7	2.5	2.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	42.8	33.6	49.7	24.7	18.7	28.6	24.3	125.8	26.2	30.3	31.0
LnGrp LOS	E	D	C	D	C	B	C	C	F	C	C	C
Approach Vol, veh/h		1165			1648			1114				379
Approach Delay, s/veh		41.4			32.3			78.2				28.8
Approach LOS		D			C			E				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	32.4	20.4	27.6	17.0	25.0	8.5	39.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	26.9	16.5	23.5	12.5	19.5	5.8	34.2				
Max Q Clear Time (g_c+I1), s	7.1	29.9	15.7	22.3	14.5	7.2	5.1	22.5				
Green Ext Time (p_c), s	0.0	0.0	0.2	0.7	0.0	0.9	0.0	5.1				
Intersection Summary												
HCM 6th Ctrl Delay			46.3									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘↘	↗↗	↘	↘	↗	↘	↘	↗↗	↘
Traffic Volume (veh/h)	56	856	197	407	987	117	229	124	517	133	91	57
Future Volume (veh/h)	56	856	197	407	987	117	229	124	517	133	91	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	930	214	442	1073	127	249	135	562	145	99	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	1021	455	511	1390	620	537	577	489	371	570	332
Arrive On Green	0.04	0.29	0.29	0.15	0.39	0.39	0.10	0.31	0.31	0.06	0.26	0.26
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2161	1259
Grp Volume(v), veh/h	61	930	214	442	1073	127	249	135	562	145	80	81
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1644
Q Serve(g_s), s	3.1	22.7	10.0	11.2	23.7	4.8	9.0	4.8	27.7	5.1	3.1	3.4
Cycle Q Clear(g_c), s	3.1	22.7	10.0	11.2	23.7	4.8	9.0	4.8	27.7	5.1	3.1	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.77
Lane Grp Cap(c), veh/h	78	1021	455	511	1390	620	537	577	489	371	469	434
V/C Ratio(X)	0.78	0.91	0.47	0.87	0.77	0.20	0.46	0.23	1.15	0.39	0.17	0.19
Avail Cap(c_a), veh/h	115	1046	467	518	1390	620	537	577	489	371	469	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	31.0	26.4	37.5	23.9	18.1	20.2	23.2	31.1	22.7	25.5	25.6
Incr Delay (d2), s/veh	9.4	6.2	0.4	14.1	2.7	0.2	0.6	0.9	88.1	0.7	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	9.9	3.6	5.5	9.5	1.6	3.6	2.2	21.7	2.2	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	37.2	26.8	51.6	26.6	18.3	20.8	24.1	119.2	23.3	26.3	26.6
LnGrp LOS	D	D	C	D	C	B	C	C	F	C	C	C
Approach Vol, veh/h		1205			1642			946			306	
Approach Delay, s/veh		36.1			32.7			79.7			25.0	
Approach LOS		D			C			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	32.2	17.8	30.4	13.6	28.2	8.5	39.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	26.9	13.5	26.5	9.1	22.9	5.8	34.2				
Max Q Clear Time (g_c+I1), s	7.1	29.7	13.2	24.7	11.0	5.4	5.1	25.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	0.7	0.0	4.5				
Intersection Summary												
HCM 6th Ctrl Delay			44.0									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘		↗↗	↘		↗
Traffic Volume (veh/h)	145	777	489	77	717	505	161	0	626	107	0	525
Future Volume (veh/h)	145	777	489	77	717	505	161	0	626	107	0	525
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	158	845	532	84	779	549	175	0	680	116	0	571
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	176	1049	468	108	914	408	804	0	0	804	0	0
Arrive On Green	0.10	0.30	0.30	0.06	0.26	0.26	0.45	0.00	0.00	0.45	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	175		1781	116	
Grp Volume(v), veh/h	158	845	532	84	779	549	175	11.8		116	11.3	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	6.1	15.4	20.7	3.3	14.6	18.0	4.2			2.7		
Cycle Q Clear(g_c), s	6.1	15.4	20.7	3.3	14.6	18.0	4.2			2.7		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	176	1049	468	108	914	408	804			804		
V/C Ratio(X)	0.90	0.81	1.14	0.78	0.85	1.35	0.22			0.14		
Avail Cap(c_a), veh/h	176	1049	468	127	914	408	804			804		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	31.2	22.8	24.7	32.4	24.7	26.0	11.7			11.3		
Incr Delay (d2), s/veh	40.8	4.7	84.7	22.6	7.8	171.7	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.4	6.3	17.7	2.0	6.4	25.4	1.4			0.9		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.0	27.5	109.4	55.0	32.6	197.7	11.8			11.3		
LnGrp LOS	E	C	F	E	C	F	B			B		
Approach Vol, veh/h		1535			1412							
Approach Delay, s/veh		60.4			98.1							
Approach LOS		E			F							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	36.1		8.7	25.2	36.1		11.4	22.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	7.3		5.0	19.9	7.7		6.9	18.0				
Max Q Clear Time (g_c+I1), s	4.7		5.3	22.7	6.2		8.1	20.0				
Green Ext Time (p_c), s	0.1		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			72.5									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary






















4: Baseline Rd & SR-210 Ramp

04/04/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	889	523	46	810	375	122	0	663	73	0	523
Future Volume (veh/h)	160	889	523	46	810	375	122	0	663	73	0	523
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	174	966	568	50	880	408	133	0	721	79	0	568
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	201	1182	527	79	939	419	766	0	0	766	0	0
Arrive On Green	0.11	0.33	0.33	0.04	0.26	0.26	0.43	0.00	0.00	0.43	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	133		1781	79	
Grp Volume(v), veh/h	174	966	568	50	880	408	133	12.4		79	12.0	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	6.7	17.4	23.3	1.9	17.0	17.9	3.2			1.9		
Cycle Q Clear(g_c), s	6.7	17.4	23.3	1.9	17.0	17.9	3.2			1.9		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	201	1182	527	79	939	419	766			766		
V/C Ratio(X)	0.87	0.82	1.08	0.63	0.94	0.97	0.17			0.10		
Avail Cap(c_a), veh/h	201	1182	527	127	939	419	766			766		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	30.5	21.4	23.4	32.9	25.2	25.5	12.3			11.9		
Incr Delay (d2), s/veh	30.3	4.6	61.5	8.1	16.3	37.0	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.3	7.0	16.5	0.9	8.4	10.2	1.1			0.6		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	26.0	84.9	40.9	41.5	62.6	12.4			12.0		
LnGrp LOS	E	C	F	D	D	E	B			B		
Approach Vol, veh/h		1708			1338							
Approach Delay, s/veh		49.1			47.9							
Approach LOS		D			D							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	34.6		7.6	27.8	34.6		12.4	23.0				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	5.8		5.0	21.4	6.3		7.9	18.5				
Max Q Clear Time (g_c+I1), s	3.9		3.9	25.3	5.2		8.7	19.9				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.0		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			46.2									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis
5: Monte Vista Ave & Claremont Blvd

04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	0	19	1	0	0	18	727	1	1	553	231
Future Volume (vph)	270	0	19	1	0	0	18	727	1	1	553	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1612	1504		1770		1770	3539		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.35	1.00	1.00
Satd. Flow (perm)	1681	1612	1504		1863		1770	3539		657	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	0	21	1	0	0	20	790	1	1	601	251
RTOR Reduction (vph)	0	121	16	0	0	0	0	0	0	0	0	109
Lane Group Flow (vph)	146	28	3	0	1	0	20	791	0	1	601	142
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	12.4	12.4	12.4		1.2		3.0	52.9		45.4	45.4	45.4
Effective Green, g (s)	12.4	12.4	12.4		1.2		3.0	52.9		45.4	45.4	45.4
Actuated g/C Ratio	0.16	0.16	0.16		0.01		0.04	0.66		0.57	0.57	0.57
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	260	249	233		27		66	2340		372	2008	898
v/s Ratio Prot	c0.09	0.02					0.01	c0.22			0.17	
v/s Ratio Perm			0.00		c0.00					0.00		0.09
v/c Ratio	0.56	0.11	0.01		0.04		0.30	0.34		0.00	0.30	0.16
Uniform Delay, d1	31.3	29.1	28.6		38.8		37.5	5.9		7.5	9.0	8.2
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.8	0.2	0.0		0.6		2.6	0.4		0.0	0.4	0.4
Delay (s)	34.0	29.3	28.6		39.4		40.1	6.3		7.5	9.4	8.6
Level of Service	C	C	C		D		D	A		A	A	A
Approach Delay (s)		31.5			39.4			7.1			9.2	
Approach LOS		C			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.9				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			18.0		
Intersection Capacity Utilization			34.9%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/04/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	261	0	235	4	7	1	222	571	4	2	471	218
Future Volume (vph)	261	0	235	4	7	1	222	571	4	2	471	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.93	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.97	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1536	1504		1815		1770	3536		1770	3539	1583
Flt Permitted	0.95	0.97	1.00		1.00		0.95	1.00		0.41	1.00	1.00
Satd. Flow (perm)	1681	1536	1504		1843		1770	3536		773	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	284	0	255	4	8	1	241	621	4	2	512	237
RTOR Reduction (vph)	0	118	141	0	1	0	0	0	0	0	0	166
Lane Group Flow (vph)	187	63	30	0	12	0	241	625	0	2	512	71
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	
Permitted Phases			4	8						6		6
Actuated Green, G (s)	14.1	14.1	14.1		1.5		22.3	50.9		24.1	24.1	24.1
Effective Green, g (s)	14.1	14.1	14.1		1.5		22.3	50.9		24.1	24.1	24.1
Actuated g/C Ratio	0.18	0.18	0.18		0.02		0.28	0.64		0.30	0.30	0.30
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	296	270	265		34		493	2249		232	1066	476
v/s Ratio Prot	c0.11	0.04					c0.14	0.18			c0.14	
v/s Ratio Perm			0.02		c0.01					0.00		0.05
v/c Ratio	0.63	0.23	0.11		0.35		0.49	0.28		0.01	0.48	0.15
Uniform Delay, d1	30.5	28.3	27.7		38.8		24.1	6.4		19.6	22.8	20.5
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.4	0.4	0.2		6.2		0.8	0.3		0.1	1.6	0.7
Delay (s)	34.9	28.8	27.9		45.0		24.9	6.7		19.6	24.4	21.1
Level of Service	C	C	C		D		C	A		B	C	C
Approach Delay (s)		30.6			45.0			11.8			23.3	
Approach LOS		C			D			B			C	

Intersection Summary		
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio	0.51	
Actuated Cycle Length (s)	80.0	Sum of lost time (s) 18.0
Intersection Capacity Utilization	52.9%	ICU Level of Service A
Analysis Period (min)	15	

c Critical Lane Group
























HCM 6th Signalized Intersection Summary
 6: Indian Hill Blvd & Foothill Blvd

04/03/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	709	252	166	704	144	284	380	162	202	356	110
Future Volume (veh/h)	103	709	252	166	704	144	284	380	162	202	356	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	771	274	180	765	157	309	413	176	220	387	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	757	269	188	1137	507	267	626	264	255	468	396
Arrive On Green	0.08	0.29	0.29	0.11	0.32	0.32	0.15	0.26	0.26	0.14	0.25	0.25
Sat Flow, veh/h	1781	2570	913	1781	3554	1585	1781	2436	1026	1781	1870	1585
Grp Volume(v), veh/h	112	533	512	180	765	157	309	300	289	220	387	120
Grp Sat Flow(s),veh/h/ln	1781	1777	1706	1781	1777	1585	1781	1777	1686	1781	1870	1585
Q Serve(g_s), s	5.6	26.5	26.5	9.0	16.8	6.7	13.5	13.6	13.8	10.9	17.6	5.5
Cycle Q Clear(g_c), s	5.6	26.5	26.5	9.0	16.8	6.7	13.5	13.6	13.8	10.9	17.6	5.5
Prop In Lane	1.00		0.54	1.00		1.00	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	143	523	502	188	1137	507	267	457	433	255	468	396
V/C Ratio(X)	0.79	1.02	1.02	0.96	0.67	0.31	1.16	0.66	0.67	0.86	0.83	0.30
Avail Cap(c_a), veh/h	267	523	502	188	1137	507	267	457	433	267	468	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	40.6	31.7	31.8	40.0	26.5	23.1	38.3	29.9	30.0	37.7	31.9	27.4
Incr Delay (d2), s/veh	9.1	44.2	45.1	53.2	1.6	0.3	104.1	7.2	7.9	19.5	12.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	17.0	16.5	6.6	6.9	2.4	13.4	6.5	6.3	6.0	9.4	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.8	75.9	76.9	93.2	28.1	23.4	142.3	37.1	37.9	57.2	44.5	28.9
LnGrp LOS	D	F	F	F	C	C	F	D	D	E	D	C
Approach Vol, veh/h		1157			1102			898			727	
Approach Delay, s/veh		73.8			38.1			73.6			45.8	
Approach LOS		E			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.4	27.6	14.0	31.0	18.0	27.0	11.7	33.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	22.5	9.5	26.5	13.5	22.5	13.5	22.5				
Max Q Clear Time (g_c+I1), s	12.9	15.8	11.0	28.5	15.5	19.6	7.6	18.8				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.0	0.0	0.8	0.1	1.9				
Intersection Summary												
HCM 6th Ctrl Delay				58.4								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary
 6: Indian Hill Blvd & Foothill Blvd

04/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	779	234	147	752	135	339	374	154	173	372	144
Future Volume (veh/h)	95	779	234	147	752	135	339	374	154	173	372	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	847	254	160	817	147	368	407	167	188	404	157
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	813	244	172	1159	517	371	776	315	220	430	365
Arrive On Green	0.07	0.30	0.30	0.10	0.33	0.33	0.21	0.31	0.31	0.12	0.23	0.23
Sat Flow, veh/h	1781	2695	807	1781	3554	1585	1781	2467	1000	1781	1870	1585
Grp Volume(v), veh/h	103	558	543	160	817	147	368	292	282	188	404	157
Grp Sat Flow(s),veh/h/ln	1781	1777	1725	1781	1777	1585	1781	1777	1690	1781	1870	1585
Q Serve(g_s), s	6.3	33.2	33.2	9.8	22.1	7.6	22.7	14.8	15.1	11.4	23.3	9.3
Cycle Q Clear(g_c), s	6.3	33.2	33.2	9.8	22.1	7.6	22.7	14.8	15.1	11.4	23.3	9.3
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	128	536	521	172	1159	517	371	559	532	220	430	365
V/C Ratio(X)	0.80	1.04	1.04	0.93	0.71	0.28	0.99	0.52	0.53	0.85	0.94	0.43
Avail Cap(c_a), veh/h	154	536	521	172	1159	517	371	559	532	332	430	365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	50.3	38.4	38.4	49.3	32.4	27.5	43.5	30.9	31.0	47.2	41.6	36.2
Incr Delay (d2), s/veh	21.9	49.9	50.9	49.3	2.0	0.3	44.6	3.5	3.8	11.0	27.4	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	21.2	20.8	6.6	9.5	2.8	14.4	6.8	6.6	5.7	13.9	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	88.3	89.3	98.6	34.4	27.8	88.1	34.4	34.8	58.3	69.0	39.3
LnGrp LOS	E	F	F	F	C	C	F	C	C	E	E	D
Approach Vol, veh/h		1204			1124			942			749	
Approach Delay, s/veh		87.4			42.7			55.5			60.1	
Approach LOS		F			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.1	39.1	15.1	37.7	27.4	29.8	12.4	40.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	20.5	27.7	10.6	33.2	22.9	25.3	9.5	34.3				
Max Q Clear Time (g_c+I1), s	13.4	17.1	11.8	35.2	24.7	25.3	8.3	24.1				
Green Ext Time (p_c), s	0.3	2.5	0.0	0.0	0.0	0.0	0.0	4.1				
Intersection Summary												
HCM 6th Ctrl Delay				62.3								
HCM 6th LOS				E								

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	993	54	71	910	11	0	0	102	0	0	45
Future Vol, veh/h	44	993	54	71	910	11	0	0	102	0	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	1079	59	77	989	12	0	0	111	0	0	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1001	0	0	1138	0	0	1824	2330	540	1779	2377	495
Stage 1	-	-	-	-	-	-	1175	1175	-	1143	1143	-
Stage 2	-	-	-	-	-	-	649	1155	-	636	1234	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	687	-	-	610	-	-	48	37	486	52	34	520
Stage 1	-	-	-	-	-	-	204	264	-	213	273	-
Stage 2	-	-	-	-	-	-	425	269	-	433	247	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	687	-	-	610	-	-	37	30	486	34	28	520
Mov Cap-2 Maneuver	-	-	-	-	-	-	37	30	-	34	28	-
Stage 1	-	-	-	-	-	-	190	246	-	198	239	-
Stage 2	-	-	-	-	-	-	336	235	-	311	230	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.8			14.6			12.6		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	486	687	-	-	610	-	-	520
HCM Lane V/C Ratio	0.228	0.07	-	-	0.127	-	-	0.094
HCM Control Delay (s)	14.6	10.6	-	-	11.8	-	-	12.6
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0.4	-	-	0.3

HCM 6th TWSC
7: College Ave & Foothill Blvd

04/04/2024

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	42	1176	62	90	1091	23	2	0	130	0	0	44
Future Vol, veh/h	42	1176	62	90	1091	23	2	0	130	0	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	1278	67	98	1186	25	2	0	141	0	0	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1211	0	0	1345	0	0	2159	2777	639	2113	2819	593
Stage 1	-	-	-	-	-	-	1370	1370	-	1382	1382	-
Stage 2	-	-	-	-	-	-	789	1407	-	731	1437	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	572	-	-	508	-	-	27	19	419	29	18	449
Stage 1	-	-	-	-	-	-	154	212	-	151	210	-
Stage 2	-	-	-	-	-	-	350	204	-	379	197	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	572	-	-	508	-	-	19	14	419	15	13	449
Mov Cap-2 Maneuver	-	-	-	-	-	-	19	14	-	15	13	-
Stage 1	-	-	-	-	-	-	142	195	-	139	169	-
Stage 2	-	-	-	-	-	-	252	165	-	231	181	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	1	25.3	14
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	318	572	-	-	508	-	-	449
HCM Lane V/C Ratio	0.451	0.08	-	-	0.193	-	-	0.107
HCM Control Delay (s)	25.3	11.8	-	-	13.8	-	-	14
HCM Lane LOS	D	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	2.2	0.3	-	-	0.7	-	-	0.4

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	9	1062	34	35	1002	10	40	5	24	27	8	0
Future Volume (veh/h)	9	1062	34	35	1002	10	40	5	24	27	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1154	37	38	1089	11	43	5	26	29	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	1487	663	209	1508	15	437	70	213	567	160	0
Arrive On Green	0.42	0.42	0.42	0.42	0.42	0.42	0.40	0.40	0.40	0.40	0.40	0.00
Sat Flow, veh/h	513	3554	1585	470	3604	36	804	175	530	1096	398	0
Grp Volume(v), veh/h	10	1154	37	38	537	563	74	0	0	38	0	0
Grp Sat Flow(s),veh/h/ln	513	1777	1585	470	1777	1864	1509	0	0	1494	0	0
Q Serve(g_s), s	0.8	14.0	0.7	3.8	12.6	12.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.4	14.0	0.7	17.8	12.6	12.6	1.3	0.0	0.0	0.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.58		0.35	0.76		0.00
Lane Grp Cap(c), veh/h	229	1487	663	209	743	780	720	0	0	727	0	0
V/C Ratio(X)	0.04	0.78	0.06	0.18	0.72	0.72	0.10	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	235	1528	682	215	764	801	720	0	0	727	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.58	0.58	0.58	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	12.5	8.7	20.2	12.1	12.1	9.3	0.0	0.0	9.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	2.5	0.0	0.2	1.9	1.8	0.3	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.6	0.2	0.4	4.0	4.2	0.5	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	15.1	8.7	20.4	14.0	14.0	9.6	0.0	0.0	9.3	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1201			1138			74			38	
Approach Delay, s/veh		14.9			14.2			9.6			9.3	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.6		25.4		24.6		25.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		21.5		19.5		21.5				
Max Q Clear Time (g_c+I1), s		3.3		16.0		2.6		19.8				
Green Ext Time (p_c), s		0.3		3.4		0.1		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				14.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	1102	37	31	1185	10	20	2	22	10	4	0
Future Volume (veh/h)	13	1102	37	31	1185	10	20	2	22	10	4	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	1198	40	34	1288	11	22	2	24	11	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	1629	727	216	1656	14	327	58	290	512	170	0
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.00
Sat Flow, veh/h	424	3554	1585	467	3611	31	614	153	767	1056	449	0
Grp Volume(v), veh/h	14	1198	40	34	634	665	48	0	0	15	0	0
Grp Sat Flow(s),veh/h/ln	424	1777	1585	467	1777	1865	1533	0	0	1505	0	0
Q Serve(g_s), s	1.6	15.1	0.8	3.5	16.5	16.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.1	15.1	0.8	18.7	16.5	16.5	1.0	0.0	0.0	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.46		0.50	0.73		0.00
Lane Grp Cap(c), veh/h	198	1629	727	216	815	855	675	0	0	682	0	0
V/C Ratio(X)	0.07	0.74	0.06	0.16	0.78	0.78	0.07	0.00	0.00	0.02	0.00	0.00
Avail Cap(c_a), veh/h	216	1777	793	236	888	932	675	0	0	682	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.2	12.2	8.3	19.8	12.5	12.5	11.0	0.0	0.0	10.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.5	0.0	0.2	2.0	1.9	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.2	0.2	0.4	5.8	6.0	0.4	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	13.6	8.3	19.9	14.5	14.4	11.2	0.0	0.0	10.8	0.0	0.0
LnGrp LOS	C	B	A	B	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1252			1333			48			15	
Approach Delay, s/veh		13.5			14.6			11.2			10.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.3		29.7		25.3		29.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		27.5		18.5		27.5				
Max Q Clear Time (g_c+I1), s		3.0		20.1		2.3		20.7				
Green Ext Time (p_c), s		0.1		4.7		0.0		4.5				
Intersection Summary												
HCM 6th Ctrl Delay				14.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	980	31	21	782	118	11	10	32	105	7	208
Future Volume (veh/h)	203	980	31	21	782	118	11	10	32	105	7	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	221	1065	34	23	850	128	12	11	35	114	8	226
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	1372	44	45	959	428	256	215	442	144	778	659
Arrive On Green	0.15	0.39	0.39	0.03	0.27	0.27	0.28	0.28	0.28	0.08	0.42	0.42
Sat Flow, veh/h	1781	3515	112	1781	3554	1585	674	771	1585	1781	1870	1585
Grp Volume(v), veh/h	221	538	561	23	850	128	23	0	35	114	8	226
Grp Sat Flow(s),veh/h/ln	1781	1777	1850	1781	1777	1585	1445	0	1585	1781	1870	1585
Q Serve(g_s), s	9.7	21.2	21.2	1.0	18.4	5.1	0.0	0.0	1.3	5.0	0.2	7.8
Cycle Q Clear(g_c), s	9.7	21.2	21.2	1.0	18.4	5.1	0.7	0.0	1.3	5.0	0.2	7.8
Prop In Lane	1.00		0.06	1.00		1.00	0.52		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	694	722	45	959	428	471	0	442	144	778	659
V/C Ratio(X)	0.85	0.78	0.78	0.52	0.89	0.30	0.05	0.00	0.08	0.79	0.01	0.34
Avail Cap(c_a), veh/h	278	694	722	114	999	446	471	0	442	167	778	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	0.79	0.79	0.79	1.00	0.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	33.3	21.3	21.3	38.5	28.0	23.2	21.1	0.0	21.3	36.1	13.7	15.9
Incr Delay (d2), s/veh	11.9	2.9	2.8	7.1	7.7	0.3	0.2	0.0	0.4	18.7	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	8.4	8.8	0.5	8.2	1.8	0.3	0.0	0.5	2.8	0.1	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	24.3	24.2	45.6	35.7	23.5	21.3	0.0	21.6	54.8	13.7	17.3
LnGrp LOS	D	C	C	D	D	C	C	A	C	D	B	B
Approach Vol, veh/h		1320			1001			58				348
Approach Delay, s/veh		27.7			34.4			21.5				29.5
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	11.0	26.8	6.5	35.7		37.8	16.1	26.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	19.5	5.1	29.9		31.5	12.5	22.5				
Max Q Clear Time (g_c+I1), s	7.0	3.3	3.0	23.2		9.8	11.7	20.4				
Green Ext Time (p_c), s	0.0	0.1	0.0	3.5		0.7	0.1	1.2				
Intersection Summary												
HCM 6th Ctrl Delay				30.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷	↷		↶	↷	↶	↷	↷
Traffic Volume (veh/h)	153	994	16	24	1001	111	13	4	21	86	1	177
Future Volume (veh/h)	153	994	16	24	1001	111	13	4	21	86	1	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	166	1080	17	26	1088	121	14	4	23	93	1	192
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	1509	24	49	1193	532	334	86	411	119	715	606
Arrive On Green	0.11	0.42	0.42	0.03	0.34	0.34	0.26	0.26	0.26	0.07	0.38	0.38
Sat Flow, veh/h	1781	3581	56	1781	3554	1585	979	331	1585	1781	1870	1585
Grp Volume(v), veh/h	166	536	561	26	1088	121	18	0	23	93	1	192
Grp Sat Flow(s),veh/h/ln	1781	1777	1860	1781	1777	1585	1310	0	1585	1781	1870	1585
Q Serve(g_s), s	7.3	20.0	20.0	1.2	23.5	4.4	0.0	0.0	0.9	4.1	0.0	6.8
Cycle Q Clear(g_c), s	7.3	20.0	20.0	1.2	23.5	4.4	0.6	0.0	0.9	4.1	0.0	6.8
Prop In Lane	1.00		0.03	1.00		1.00	0.78		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	749	784	49	1193	532	420	0	411	119	715	606
V/C Ratio(X)	0.82	0.72	0.72	0.53	0.91	0.23	0.04	0.00	0.06	0.78	0.00	0.32
Avail Cap(c_a), veh/h	212	749	784	114	1222	545	420	0	411	122	715	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	0.62	0.62	0.62	1.00	0.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	34.7	19.2	19.2	38.4	25.4	19.1	22.2	0.0	22.3	36.8	15.3	17.4
Incr Delay (d2), s/veh	14.8	2.1	2.0	5.5	6.9	0.1	0.2	0.0	0.3	24.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	7.7	8.1	0.6	10.1	1.5	0.3	0.0	0.3	2.5	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.4	21.3	21.2	43.9	32.3	19.2	22.4	0.0	22.5	60.9	15.3	18.6
LnGrp LOS	D	C	C	D	C	B	C	A	C	E	B	B
Approach Vol, veh/h		1263			1235			41			286	
Approach Delay, s/veh		24.9			31.3			22.4			32.4	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	6	7	8					
Phs Duration (G+Y+Rc), s	9.8	25.2	6.7	38.2	35.1	13.6	31.3					
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s	5.5	19.5	5.1	31.9	29.5	9.5	27.5					
Max Q Clear Time (g_c+I1), s	6.1	2.9	3.2	22.0	8.8	9.3	25.5					
Green Ext Time (p_c), s	0.0	0.1	0.0	4.7	0.6	0.0	1.4					
Intersection Summary												
HCM 6th Ctrl Delay				28.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 10: Claremont Blvd & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (veh/h)	141	836	122	182	735	53	111	269	177	62	197	84
Future Volume (veh/h)	141	836	122	182	735	53	111	269	177	62	197	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	153	909	133	198	799	58	121	292	192	67	214	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	1050	468	244	1150	513	818	712	455	331	841	346
Arrive On Green	0.11	0.30	0.30	0.14	0.32	0.32	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2084	2079	1329	911	2456	1010
Grp Volume(v), veh/h	153	909	133	198	799	58	121	248	236	67	153	152
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1042	1777	1631	911	1777	1689
Q Serve(g_s), s	5.0	14.5	3.9	6.5	11.8	1.5	2.7	6.4	6.7	3.7	3.7	3.9
Cycle Q Clear(g_c), s	5.0	14.5	3.9	6.5	11.8	1.5	6.6	6.4	6.7	10.3	3.7	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.81	1.00		0.60
Lane Grp Cap(c), veh/h	194	1050	468	244	1150	513	818	609	559	331	609	579
V/C Ratio(X)	0.79	0.87	0.28	0.81	0.69	0.11	0.15	0.41	0.42	0.20	0.25	0.26
Avail Cap(c_a), veh/h	246	1096	489	282	1167	520	818	609	559	331	609	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	20.0	16.3	25.1	17.7	14.2	16.6	15.1	15.2	19.1	14.2	14.2
Incr Delay (d2), s/veh	8.5	4.9	0.2	14.5	1.8	0.1	0.4	2.0	2.3	1.4	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.8	1.2	3.4	4.4	0.5	0.6	2.5	2.5	0.8	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	24.9	16.5	39.6	19.5	14.3	17.0	17.1	17.5	20.5	15.2	15.4
LnGrp LOS	C	C	B	D	B	B	B	B	B	C	B	B
Approach Vol, veh/h		1195			1055			605			372	
Approach Delay, s/veh		25.2			23.0			17.2			16.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.1	12.7	22.2		25.1	11.0	23.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	9.5	18.5		18.5	8.3	19.7				
Max Q Clear Time (g_c+I1), s		8.7	8.5	16.5		12.3	7.0	13.8				
Green Ext Time (p_c), s		2.4	0.1	1.2		1.0	0.0	2.6				
Intersection Summary												
HCM 6th Ctrl Delay				21.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 10: Claremont Blvd & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↗	↗	↗	↗↗	↗	↗↗	↗↗		↗	↗↗	
Traffic Volume (veh/h)	120	912	115	100	811	47	82	205	78	72	220	108
Future Volume (veh/h)	120	912	115	100	811	47	82	205	78	72	220	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	991	125	109	882	51	89	223	85	78	239	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	1151	514	140	1099	490	834	946	350	452	872	413
Arrive On Green	0.09	0.32	0.32	0.08	0.31	0.31	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1989	2539	939	1071	2340	1108
Grp Volume(v), veh/h	130	991	125	109	882	51	89	154	154	78	180	176
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	995	1777	1701	1071	1777	1671
Q Serve(g_s), s	4.3	15.7	3.5	3.6	13.7	1.4	2.0	3.6	3.7	3.3	4.2	4.4
Cycle Q Clear(g_c), s	4.3	15.7	3.5	3.6	13.7	1.4	6.4	3.6	3.7	7.0	4.2	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.55	1.00		0.66
Lane Grp Cap(c), veh/h	166	1151	514	140	1099	490	834	662	634	452	662	622
V/C Ratio(X)	0.78	0.86	0.24	0.78	0.80	0.10	0.11	0.23	0.24	0.17	0.27	0.28
Avail Cap(c_a), veh/h	223	1214	542	193	1155	515	834	662	634	452	662	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	19.0	14.9	27.1	19.0	14.8	15.5	12.9	13.0	15.4	13.1	13.2
Incr Delay (d2), s/veh	8.7	4.5	0.2	12.8	4.0	0.1	0.3	0.8	0.9	0.8	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	6.2	1.1	1.9	5.4	0.4	0.4	1.3	1.4	0.8	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	23.5	15.1	40.0	23.1	14.9	15.7	13.7	13.9	16.2	14.1	14.3
LnGrp LOS	D	C	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		1246			1042			397			434	
Approach Delay, s/veh		23.9			24.4			14.2			14.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.9	9.2	23.9		26.9	10.1	23.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	6.5	20.5		19.5	7.5	19.5				
Max Q Clear Time (g_c+I1), s		8.4	5.6	17.7		9.0	6.3	15.7				
Green Ext Time (p_c), s		1.6	0.0	1.8		1.7	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay			21.5									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	751	279	259	664	169	276	519	192	139	439	47
Future Volume (veh/h)	39	751	279	259	664	169	276	519	192	139	439	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	791	294	273	699	178	291	546	202	146	462	49
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	951	424	275	1089	486	275	1041	464	254	1346	141
Arrive On Green	0.04	0.27	0.27	0.08	0.31	0.31	0.08	0.29	0.29	0.07	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4695	491
Grp Volume(v), veh/h	41	791	294	273	699	178	291	546	202	146	333	178
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1782
Q Serve(g_s), s	1.4	13.2	10.5	5.0	10.7	5.5	5.0	8.1	6.5	2.6	4.9	5.0
Cycle Q Clear(g_c), s	1.4	13.2	10.5	5.0	10.7	5.5	5.0	8.1	6.5	2.6	4.9	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	72	951	424	275	1089	486	275	1041	464	254	976	511
V/C Ratio(X)	0.57	0.83	0.69	0.99	0.64	0.37	1.06	0.52	0.44	0.58	0.34	0.35
Avail Cap(c_a), veh/h	142	1019	454	275	1089	486	275	1041	464	275	976	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	21.7	20.7	28.9	18.8	17.0	28.9	18.6	18.0	28.2	17.7	17.8
Incr Delay (d2), s/veh	6.8	5.7	4.2	52.0	1.3	0.5	70.3	1.9	3.0	2.5	1.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.5	3.9	3.9	4.0	1.8	4.6	3.1	2.5	1.0	1.8	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	27.3	24.8	80.9	20.1	17.5	99.2	20.4	21.0	30.7	18.7	19.6
LnGrp LOS	D	C	C	F	C	B	F	C	C	C	B	B
Approach Vol, veh/h		1126			1150			1039				657
Approach Delay, s/veh		27.0			34.1			42.6				21.6
Approach LOS		C			C			D				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	22.9	9.5	21.3	9.5	22.5	7.1	23.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.6	10.1	7.0	15.2	7.0	7.0	3.4	12.7				
Green Ext Time (p_c), s	0.0	2.5	0.0	1.6	0.0	2.2	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				32.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	779	153	144	734	232	135	435	148	137	455	60
Future Volume (veh/h)	116	779	153	144	734	232	135	435	148	137	455	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	820	161	152	773	244	142	458	156	144	479	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	968	432	258	947	422	254	1029	459	255	1326	172
Arrive On Green	0.08	0.27	0.27	0.07	0.27	0.27	0.07	0.29	0.29	0.07	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4576	592
Grp Volume(v), veh/h	122	820	161	152	773	244	142	458	156	144	354	188
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1764
Q Serve(g_s), s	4.2	13.6	5.1	2.6	12.7	8.3	2.5	6.5	4.8	2.5	5.1	5.3
Cycle Q Clear(g_c), s	4.2	13.6	5.1	2.6	12.7	8.3	2.5	6.5	4.8	2.5	5.1	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.34
Lane Grp Cap(c), veh/h	143	968	432	258	947	422	254	1029	459	255	987	511
V/C Ratio(X)	0.85	0.85	0.37	0.59	0.82	0.58	0.56	0.44	0.34	0.56	0.36	0.37
Avail Cap(c_a), veh/h	143	1029	459	278	1029	459	278	1029	459	278	987	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	21.4	18.3	27.8	21.4	19.8	27.8	18.0	17.4	27.8	17.5	17.5
Incr Delay (d2), s/veh	35.9	6.4	0.5	2.9	4.9	1.5	2.1	1.4	2.0	2.2	1.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	5.8	1.7	1.1	5.2	2.9	1.0	2.5	1.8	1.0	1.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.1	27.8	18.8	30.7	26.2	21.3	29.9	19.4	19.4	30.0	18.5	19.6
LnGrp LOS	E	C	B	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		1103			1169			756			686	
Approach Delay, s/veh		30.5			25.8			21.4			21.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	22.5	9.1	21.4	9.1	22.5	9.5	21.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.5	8.5	4.6	15.6	4.5	7.3	6.2	14.7				
Green Ext Time (p_c), s	0.0	2.3	0.0	1.4	0.0	2.3	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				25.4								
HCM 6th LOS				C								

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	851	447	253	827	0	474	0	295	1	0	0
Future Volume (vph)	14	851	447	253	827	0	474	0	295	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.97	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		0.95	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1581	1504		3362	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1581	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	896	471	266	871	0	499	0	311	1	0	0
RTOR Reduction (vph)	0	0	249	0	0	0	0	107	183	0	0	0
Lane Group Flow (vph)	15	896	222	266	871	0	279	169	72	0	1	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	447	425		55	
v/s Ratio Prot	0.01	c0.25		c0.08	c0.25		c0.17	0.11				
v/s Ratio Perm			0.14						0.05		c0.00	
v/c Ratio	0.62	0.74	0.41	0.99	0.61		0.59	0.38	0.17		0.02	
Uniform Delay, d1	31.4	18.5	16.1	29.5	15.0		19.7	18.4	17.3		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	41.4	2.4	0.5	52.7	0.7		5.2	2.4	0.9		0.1	
Delay (s)	72.7	21.0	16.6	82.2	15.7		25.0	20.9	18.2		31.1	
Level of Service	E	C	B	F	B		C	C	B		C	
Approach Delay (s)		20.0			31.2			21.4			31.1	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	893	300	243	838	0	365	0	283	0	0	2
Future Volume (vph)	13	893	300	243	838	0	365	0	283	0	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.95	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.97	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1554	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.97	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1554	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	940	316	256	882	0	384	0	298	0	0	2
RTOR Reduction (vph)	0	0	159	0	0	0	0	107	154	0	2	0
Lane Group Flow (vph)	14	940	157	256	882	0	234	126	61	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	439	425		47	
v/s Ratio Prot	0.01	c0.27		c0.07	c0.25		c0.14	0.08			c0.00	
v/s Ratio Perm			0.10						0.04			
v/c Ratio	0.58	0.78	0.29	0.96	0.61		0.49	0.29	0.14		0.00	
Uniform Delay, d1	31.4	18.9	15.4	29.4	15.0		19.1	17.9	17.2		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	31.3	3.2	0.3	42.4	0.8		3.6	1.6	0.7		0.0	
Delay (s)	62.7	22.0	15.7	71.8	15.8		22.7	19.6	17.9		31.0	
Level of Service	E	C	B	E	B		C	B	B		C	
Approach Delay (s)		20.9			28.4			20.1			31.0	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	62.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	71.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	9	70	4	136	86	38	7	396	131	36	402	8
Future Vol, veh/h	9	70	4	136	86	38	7	396	131	36	402	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	76	4	148	93	41	8	430	142	39	437	9

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1104	1108	442	1077	1041	501	446	0	0	572	0	0
Stage 1	520	520	-	517	517	-	-	-	-	-	-	-
Stage 2	584	588	-	560	524	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	188	210	615	197	230	570	1114	-	-	1001	-	-
Stage 1	539	532	-	541	534	-	-	-	-	-	-	-
Stage 2	498	496	-	513	530	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	112	200	615	~ 133	219	570	1114	-	-	1001	-	-
Mov Cap-2 Maneuver	112	200	-	~ 133	219	-	-	-	-	-	-	-
Stage 1	535	511	-	537	530	-	-	-	-	-	-	-
Stage 2	378	493	-	417	509	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	40	\$ 348.6	0.1	0.7
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	190	175	1001	-
HCM Lane V/C Ratio	0.007	-	-	0.475	1.615	0.039	-
HCM Control Delay (s)	8.3	-	-	40\$ 348.6	8.7	-	-
HCM Lane LOS	A	-	-	E	F	A	-
HCM 95th %tile Q(veh)	0	-	-	2.3	19	0.1	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
13: 6th St & Indian Hill Blvd

04/04/2024

Intersection												
Int Delay, s/veh	99.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	6	0	3	82	10	114	6	828	108	97	728	0
Future Vol, veh/h	6	0	3	82	10	114	6	828	108	97	728	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	3	89	11	124	7	900	117	105	791	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2041	2032	791	1976	1974	959	791	0	0	1017	0	0
Stage 1	1001	1001	-	973	973	-	-	-	-	-	-	-
Stage 2	1040	1031	-	1003	1001	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	42	57	390	~46	62	312	829	-	-	682	-	-
Stage 1	293	321	-	303	330	-	-	-	-	-	-	-
Stage 2	278	310	-	292	321	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	19	48	390	~40	52	312	829	-	-	682	-	-
Mov Cap-2 Maneuver	19	48	-	~40	52	-	-	-	-	-	-	-
Stage 1	291	272	-	301	327	-	-	-	-	-	-	-
Stage 2	161	308	-	245	272	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	191.3		\$ 941.3		0.1		1.3	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	829	-	-	28	79	682	-	-
HCM Lane V/C Ratio	0.008	-	-	0.349	2.834	0.155	-	-
HCM Control Delay (s)	9.4	-	-	191.3	\$ 941.3	11.2	-	-
HCM Lane LOS	A	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	1.1	21.9	0.5	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	22.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	58	263	6	68	268	14	8	173	71	17	172	58
Future Vol, veh/h	58	263	6	68	268	14	8	173	71	17	172	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	286	7	74	291	15	9	188	77	18	187	63
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	24.1	26.5	18.6	18.5
HCM LOS	C	D	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	18%	19%	7%
Vol Thru, %	69%	80%	77%	70%
Vol Right, %	28%	2%	4%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	252	327	350	247
LT Vol	8	58	68	17
Through Vol	173	263	268	172
RT Vol	71	6	14	58
Lane Flow Rate	274	355	380	268
Geometry Grp	1	1	1	1
Degree of Util (X)	0.545	0.688	0.729	0.538
Departure Headway (Hd)	7.167	6.971	6.898	7.217
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	501	515	521	497
Service Time	5.237	5.037	4.962	5.288
HCM Lane V/C Ratio	0.547	0.689	0.729	0.539
HCM Control Delay	18.6	24.1	26.5	18.5
HCM Lane LOS	C	C	D	C
HCM 95th-tile Q	3.2	5.2	6	3.1

Intersection	
Intersection Delay, s/veh	37.2
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	61	282	65	89	234	15	83	177	57	12	150	56
Future Vol, veh/h	61	282	65	89	234	15	83	177	57	12	150	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	66	307	71	97	254	16	90	192	62	13	163	61
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	51.7	35.2	31.8	21
HCM LOS	F	E	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	15%	26%	6%
Vol Thru, %	56%	69%	69%	69%
Vol Right, %	18%	16%	4%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	317	408	338	218
LT Vol	83	61	89	12
Through Vol	177	282	234	150
RT Vol	57	65	15	56
Lane Flow Rate	345	443	367	237
Geometry Grp	1	1	1	1
Degree of Util (X)	0.756	0.922	0.796	0.545
Departure Headway (Hd)	7.899	7.483	7.797	8.276
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	455	483	463	434
Service Time	5.983	5.562	5.883	6.374
HCM Lane V/C Ratio	0.758	0.917	0.793	0.546
HCM Control Delay	31.8	51.7	35.2	21
HCM Lane LOS	D	F	E	C
HCM 95th-tile Q	6.4	10.7	7.2	3.2

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	285	16	26	330	5	18	0	9	2	5	0
Future Vol, veh/h	3	285	16	26	330	5	18	0	9	2	5	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	310	17	28	359	5	20	0	10	2	5	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.4	11.3	8.7	8.7
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	1%	7%	29%
Vol Thru, %	0%	94%	91%	71%
Vol Right, %	33%	5%	1%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	304	361	7
LT Vol	18	3	26	2
Through Vol	0	285	330	5
RT Vol	9	16	5	0
Lane Flow Rate	29	330	392	8
Geometry Grp	1	1	1	1
Degree of Util (X)	0.044	0.404	0.477	0.012
Departure Headway (Hd)	5.433	4.403	4.376	5.6
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	658	819	824	638
Service Time	3.477	2.423	2.396	3.648
HCM Lane V/C Ratio	0.044	0.403	0.476	0.013
HCM Control Delay	8.7	10.4	11.3	8.7
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.1	2	2.6	0

HCM 6th AWSC
15: Mills Ave & 6st St

04/04/2024

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	358	17	15	338	4	14	0	11	2	4	3
Future Vol, veh/h	6	358	17	15	338	4	14	0	11	2	4	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	389	18	16	367	4	15	0	12	2	4	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.9	11.6	8.8	8.7
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	56%	2%	4%	22%
Vol Thru, %	0%	94%	95%	44%
Vol Right, %	44%	4%	1%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	381	357	9
LT Vol	14	6	15	2
Through Vol	0	358	338	4
RT Vol	11	17	4	3
Lane Flow Rate	27	414	388	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.042	0.508	0.481	0.015
Departure Headway (Hd)	5.517	4.412	4.46	5.55
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	646	820	807	642
Service Time	3.572	2.434	2.483	3.609
HCM Lane V/C Ratio	0.042	0.505	0.481	0.016
HCM Control Delay	8.8	11.9	11.6	8.7
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.1	2.9	2.6	0

HCM 6th Signalized Intersection Summary

16: Claremont Blvd & 6st St/W Arrow Rt

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	323	56	181	375	86	66	374	167	65	318	119
Future Volume (veh/h)	94	323	56	181	375	86	66	374	167	65	318	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	340	59	191	395	91	69	394	176	68	335	125
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	425	370	64	417	438	371	298	573	253	258	607	222
Arrive On Green	0.24	0.24	0.24	0.23	0.23	0.23	0.05	0.24	0.24	0.05	0.24	0.24
Sat Flow, veh/h	1781	1552	269	1781	1870	1585	1781	2399	1058	1781	2546	933
Grp Volume(v), veh/h	99	0	399	191	395	91	69	290	280	68	232	228
Grp Sat Flow(s),veh/h/ln	1781	0	1822	1781	1870	1585	1781	1777	1680	1781	1777	1702
Q Serve(g_s), s	3.4	0.0	16.1	6.9	15.5	3.5	2.2	11.2	11.5	2.1	8.6	8.9
Cycle Q Clear(g_c), s	3.4	0.0	16.1	6.9	15.5	3.5	2.2	11.2	11.5	2.1	8.6	8.9
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.63	1.00		0.55
Lane Grp Cap(c), veh/h	425	0	434	417	438	371	298	424	401	258	424	406
V/C Ratio(X)	0.23	0.00	0.92	0.46	0.90	0.25	0.23	0.68	0.70	0.26	0.55	0.56
Avail Cap(c_a), veh/h	425	0	434	425	446	378	326	424	401	286	424	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	28.0	24.8	28.1	23.5	20.4	26.2	26.2	20.8	25.2	25.3
Incr Delay (d2), s/veh	0.3	0.0	24.5	0.8	21.0	0.3	0.4	8.7	9.6	0.5	5.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	9.3	2.9	9.2	1.3	0.9	5.4	5.3	0.9	4.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	0.0	52.5	25.6	49.1	23.8	20.8	34.8	35.9	21.3	30.2	30.8
LnGrp LOS	C	A	D	C	D	C	C	C	D	C	C	C
Approach Vol, veh/h		498			677			639			528	
Approach Delay, s/veh		46.8			39.0			33.8			29.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	22.5		22.5	8.3	22.5		22.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	4.1	13.5		18.1	4.2	10.9		17.5				
Green Ext Time (p_c), s	0.0	1.4		0.0	0.0	1.5		0.2				

Intersection Summary

HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt
























04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	87	356	50	227	334	47	40	270	165	58	334	82
Future Volume (veh/h)	87	356	50	227	334	47	40	270	165	58	334	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	375	53	239	352	49	42	284	174	61	352	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	435	391	55	391	411	348	306	523	311	300	719	173
Arrive On Green	0.24	0.24	0.24	0.22	0.22	0.22	0.04	0.24	0.24	0.05	0.25	0.25
Sat Flow, veh/h	1781	1603	227	1781	1870	1585	1781	2142	1275	1781	2839	685
Grp Volume(v), veh/h	92	0	428	239	352	49	42	234	224	61	219	219
Grp Sat Flow(s),veh/h/ln	1781	0	1830	1781	1870	1585	1781	1777	1641	1781	1777	1747
Q Serve(g_s), s	3.0	0.0	17.0	8.9	13.3	1.8	1.3	8.5	8.8	1.9	7.7	7.9
Cycle Q Clear(g_c), s	3.0	0.0	17.0	8.9	13.3	1.8	1.3	8.5	8.8	1.9	7.7	7.9
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.78	1.00		0.39
Lane Grp Cap(c), veh/h	435	0	446	391	411	348	306	434	400	300	450	442
V/C Ratio(X)	0.21	0.00	0.96	0.61	0.86	0.14	0.14	0.54	0.56	0.20	0.49	0.50
Avail Cap(c_a), veh/h	435	0	446	435	456	387	357	434	400	335	450	442
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	27.5	25.9	27.7	23.2	19.8	24.3	24.4	19.7	23.5	23.5
Incr Delay (d2), s/veh	0.2	0.0	32.1	2.1	13.8	0.2	0.2	4.8	5.5	0.3	3.7	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	10.6	3.8	7.3	0.7	0.5	3.8	3.8	0.7	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	0.0	59.6	28.0	41.5	23.4	20.0	29.0	30.0	20.0	27.2	27.5
LnGrp LOS	C	A	E	C	D	C	B	C	C	C	C	C
Approach Vol, veh/h		520			640			500			499	
Approach Delay, s/veh		53.1			35.1			28.7			26.4	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	22.5		22.5	7.4	23.2		20.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	3.9	10.8		19.0	3.3	9.9		15.3				
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	1.5		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				35.9								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

04/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	272	70	47	312	50	120	697	34	29	791	184
Future Volume (veh/h)	213	272	70	47	312	50	120	697	34	29	791	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	224	286	74	49	328	53	126	734	36	31	833	194
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	722	183	84	408	346	259	1752	86	60	1286	298
Arrive On Green	0.09	0.26	0.26	0.05	0.22	0.22	0.07	0.35	0.35	0.03	0.31	0.31
Sat Flow, veh/h	1781	2805	713	1781	1870	1585	3456	4987	244	1781	4143	959
Grp Volume(v), veh/h	224	179	181	49	328	53	126	500	270	31	683	344
Grp Sat Flow(s),veh/h/ln	1781	1777	1742	1781	1870	1585	1728	1702	1826	1781	1702	1698
Q Serve(g_s), s	5.0	4.8	5.0	1.6	9.6	1.6	2.0	6.5	6.5	1.0	10.0	10.1
Cycle Q Clear(g_c), s	5.0	4.8	5.0	1.6	9.6	1.6	2.0	6.5	6.5	1.0	10.0	10.1
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.13	1.00		0.56
Lane Grp Cap(c), veh/h	154	457	448	84	408	346	259	1196	642	60	1057	527
V/C Ratio(X)	1.46	0.39	0.40	0.58	0.80	0.15	0.49	0.42	0.42	0.51	0.65	0.65
Avail Cap(c_a), veh/h	154	552	541	154	581	492	298	1196	642	154	1057	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	17.8	17.8	27.1	21.5	18.3	25.8	14.3	14.3	27.5	17.3	17.3
Incr Delay (d2), s/veh	238.5	0.5	0.6	6.3	5.4	0.2	1.4	1.1	2.0	6.6	3.1	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.0	1.7	1.8	0.7	4.2	0.5	0.8	2.2	2.5	0.5	3.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	265.0	18.3	18.4	33.4	26.9	18.5	27.2	15.4	16.3	34.1	20.3	23.4
LnGrp LOS	F	B	B	C	C	B	C	B	B	C	C	C
Approach Vol, veh/h		584			430			896			1058	
Approach Delay, s/veh		113.0			26.6			17.3			21.7	
Approach LOS		F			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	24.9	7.2	19.4	8.8	22.5	9.5	17.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.0	8.5	3.6	7.0	4.0	12.1	7.0	11.6				
Green Ext Time (p_c), s	0.0	3.1	0.0	1.4	0.0	3.0	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				39.1								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

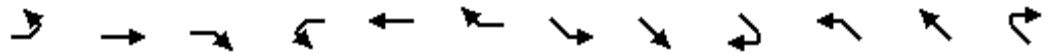
04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↖↗↘		↗	↗↘	
Traffic Volume (veh/h)	134	438	40	79	393	58	85	517	123	75	604	112
Future Volume (veh/h)	134	438	40	79	393	58	85	517	123	75	604	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	461	42	83	414	61	89	544	129	79	636	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	915	83	111	481	408	222	1248	289	108	1292	236
Arrive On Green	0.08	0.28	0.28	0.06	0.26	0.26	0.06	0.30	0.30	0.06	0.30	0.30
Sat Flow, veh/h	1781	3294	299	1781	1870	1585	3456	4141	960	1781	4338	794
Grp Volume(v), veh/h	141	248	255	83	414	61	89	445	228	79	497	257
Grp Sat Flow(s),veh/h/ln	1781	1777	1817	1781	1870	1585	1728	1702	1697	1781	1702	1728
Q Serve(g_s), s	4.8	7.1	7.1	2.8	12.8	1.8	1.5	6.3	6.6	2.6	7.3	7.4
Cycle Q Clear(g_c), s	4.8	7.1	7.1	2.8	12.8	1.8	1.5	6.3	6.6	2.6	7.3	7.4
Prop In Lane	1.00		0.16	1.00		1.00	1.00		0.57	1.00		0.46
Lane Grp Cap(c), veh/h	147	494	505	111	481	408	222	1026	511	108	1014	515
V/C Ratio(X)	0.96	0.50	0.51	0.75	0.86	0.15	0.40	0.43	0.45	0.73	0.49	0.50
Avail Cap(c_a), veh/h	147	529	541	147	557	472	286	1026	511	147	1014	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	18.3	18.3	27.9	21.4	17.3	27.2	17.0	17.0	27.9	17.4	17.5
Incr Delay (d2), s/veh	60.9	0.8	0.8	13.6	11.6	0.2	1.2	1.3	2.8	11.2	1.7	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	2.6	2.6	1.5	6.3	0.6	0.6	2.3	2.5	1.3	2.6	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.5	19.1	19.1	41.5	33.0	17.5	28.3	18.3	19.8	39.1	19.1	20.9
LnGrp LOS	F	B	B	D	C	B	C	B	B	D	B	C
Approach Vol, veh/h		644			558			762				833
Approach Delay, s/veh		34.3			32.6			19.9				21.6
Approach LOS		C			C			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	22.7	8.3	21.3	8.4	22.5	9.5	20.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.6	8.6	4.8	9.1	3.5	9.4	6.8	14.8				
Green Ext Time (p_c), s	0.0	2.7	0.0	1.8	0.0	2.9	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				26.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

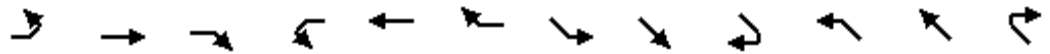
04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	19	23	44	28	23	57	35	793	14	20	781	10
Future Volume (veh/h)	19	23	44	28	23	57	35	793	14	20	781	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	25	48	30	25	62	38	862	15	22	849	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	95	216	119	72	216	70	1146	972	46	1104	14
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.04	0.61	0.61	0.03	0.60	0.60
Sat Flow, veh/h	166	697	1585	196	529	1585	1781	1870	1585	1781	1842	24
Grp Volume(v), veh/h	46	0	48	55	0	62	38	862	15	22	0	860
Grp Sat Flow(s),veh/h/ln	862	0	1585	725	0	1585	1781	1870	1585	1781	0	1866
Q Serve(g_s), s	0.1	0.0	1.6	0.2	0.0	2.1	1.3	19.9	0.2	0.7	0.0	20.5
Cycle Q Clear(g_c), s	6.4	0.0	1.6	6.4	0.0	2.1	1.3	19.9	0.2	0.7	0.0	20.5
Prop In Lane	0.46		1.00	0.55		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	205	0	216	192	0	216	70	1146	972	46	0	1119
V/C Ratio(X)	0.22	0.00	0.22	0.29	0.00	0.29	0.55	0.75	0.02	0.48	0.00	0.77
Avail Cap(c_a), veh/h	464	0	478	444	0	478	151	1146	972	148	0	1119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	23.1	23.2	0.0	23.3	28.3	8.3	4.5	28.8	0.0	8.9
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.8	0.0	0.7	6.5	4.6	0.0	7.7	0.0	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.6	0.7	0.0	0.8	0.6	7.5	0.1	0.4	0.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	23.6	24.1	0.0	24.0	34.8	12.9	4.6	36.6	0.0	14.0
LnGrp LOS	C	A	C	C	A	C	C	B	A	D	A	B
Approach Vol, veh/h		94			117			915				882
Approach Delay, s/veh		23.6			24.0			13.7				14.6
Approach LOS		C			C			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	40.3		12.8	6.0	41.1		12.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.3		18.1	5.0	23.4		18.1				
Max Q Clear Time (g_c+I1), s	3.3	22.5		8.4	2.7	21.9		8.4				
Green Ext Time (p_c), s	0.0	0.5		0.2	0.0	1.0		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			15.1									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	45	19	42	17	27	49	48	728	25	20	832	9
Future Volume (veh/h)	45	19	42	17	27	49	48	728	25	20	832	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	21	46	18	29	53	52	791	27	22	904	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	20	357	62	74	357	76	1089	923	43	1040	12
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.04	0.58	0.58	0.02	0.56	0.56
Sat Flow, veh/h	0	89	1585	0	330	1585	1781	1870	1585	1781	1846	20
Grp Volume(v), veh/h	70	0	46	47	0	53	52	791	27	22	0	914
Grp Sat Flow(s),veh/h/ln	89	0	1585	330	0	1585	1781	1870	1585	1781	0	1867
Q Serve(g_s), s	0.0	0.0	1.9	0.0	0.0	2.1	2.3	24.5	0.6	1.0	0.0	33.5
Cycle Q Clear(g_c), s	18.0	0.0	1.9	18.0	0.0	2.1	2.3	24.5	0.6	1.0	0.0	33.5
Prop In Lane	0.70		1.00	0.38		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	97	0	357	137	0	357	76	1089	923	43	0	1052
V/C Ratio(X)	0.73	0.00	0.13	0.34	0.00	0.15	0.68	0.73	0.03	0.51	0.00	0.87
Avail Cap(c_a), veh/h	97	0	357	137	0	357	114	1089	923	111	0	1052
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	24.7	26.0	0.0	24.9	37.7	12.1	7.1	38.6	0.0	14.9
Incr Delay (d2), s/veh	23.5	0.0	0.2	1.5	0.0	0.2	10.2	4.2	0.1	9.1	0.0	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.7	0.8	0.0	0.8	1.2	10.4	0.2	0.5	0.0	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	0.0	24.9	27.5	0.0	25.0	47.9	16.4	7.2	47.6	0.0	24.7
LnGrp LOS	E	A	C	C	A	C	D	B	A	D	A	C
Approach Vol, veh/h		116			100			870				936
Approach Delay, s/veh		45.2			26.2			18.0				25.2
Approach LOS		D			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	49.6		22.5	6.4	51.1		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	43.4		18.0	5.0	43.5		18.0				
Max Q Clear Time (g_c+I1), s	4.3	35.5		20.0	3.0	26.5		20.0				
Green Ext Time (p_c), s	0.0	4.2		0.0	0.0	5.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			23.3									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

19: 1st St & Indian Hill Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	39	82	142	49	108	112	899	187	44	807	86
Future Volume (veh/h)	32	39	82	142	49	108	112	899	187	44	807	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	42	89	154	53	117	122	977	203	48	877	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	332	281	302	92	203	264	1097	929	244	939	100
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.06	0.59	0.59	0.04	0.56	0.56
Sat Flow, veh/h	1215	1870	1585	1259	519	1145	1781	1870	1585	1781	1662	176
Grp Volume(v), veh/h	35	42	89	154	0	170	122	977	203	48	0	970
Grp Sat Flow(s),veh/h/ln	1215	1870	1585	1259	0	1664	1781	1870	1585	1781	0	1839
Q Serve(g_s), s	1.9	1.3	3.4	8.2	0.0	6.6	1.9	31.7	4.3	0.8	0.0	34.0
Cycle Q Clear(g_c), s	8.5	1.3	3.4	9.5	0.0	6.6	1.9	31.7	4.3	0.8	0.0	34.0
Prop In Lane	1.00		1.00	1.00		0.69	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	205	332	281	302	0	295	264	1097	929	244	0	1039
V/C Ratio(X)	0.17	0.13	0.32	0.51	0.00	0.58	0.46	0.89	0.22	0.20	0.00	0.93
Avail Cap(c_a), veh/h	310	494	419	412	0	440	278	1097	929	294	0	1039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.61	0.61	0.61	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.2	24.2	25.1	28.2	0.0	26.4	15.3	12.5	6.9	12.8	0.0	14.0
Incr Delay (d2), s/veh	0.4	0.2	0.6	1.3	0.0	1.8	0.8	7.1	0.3	0.4	0.0	15.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.6	1.3	2.5	0.0	2.7	1.0	12.7	1.3	0.3	0.0	16.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	24.4	25.7	29.6	0.0	28.1	16.1	19.7	7.2	13.1	0.0	30.0
LnGrp LOS	C	C	C	C	A	C	B	B	A	B	A	C
Approach Vol, veh/h		166			324			1302			1018	
Approach Delay, s/veh		26.4			28.8			17.4			29.2	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	45.5		16.9	9.0	44.0		16.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	33.0		18.5	5.1	32.9		18.5				
Max Q Clear Time (g_c+I1), s	2.8	33.7		10.5	3.9	36.0		11.5				
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	0.0		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				23.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

19: 1st St & Indian Hill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	83	115	135	90	143	141	678	214	125	683	88
Future Volume (veh/h)	55	83	115	135	90	143	141	678	214	125	683	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	90	125	147	98	155	153	737	233	136	742	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	410	347	305	143	226	306	1007	853	346	871	113
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.06	0.54	0.54	0.06	0.54	0.54
Sat Flow, veh/h	1127	1870	1585	1166	653	1032	1781	1870	1585	1781	1623	210
Grp Volume(v), veh/h	60	90	125	147	0	253	153	737	233	136	0	838
Grp Sat Flow(s),veh/h/ln	1127	1870	1585	1166	0	1685	1781	1870	1585	1781	0	1833
Q Serve(g_s), s	3.9	3.0	5.0	8.9	0.0	10.4	2.8	22.5	6.0	2.5	0.0	29.3
Cycle Q Clear(g_c), s	14.2	3.0	5.0	11.8	0.0	10.4	2.8	22.5	6.0	2.5	0.0	29.3
Prop In Lane	1.00		1.00	1.00		0.61	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	187	410	347	305	0	369	306	1007	853	346	0	984
V/C Ratio(X)	0.32	0.22	0.36	0.48	0.00	0.69	0.50	0.73	0.27	0.39	0.00	0.85
Avail Cap(c_a), veh/h	211	449	380	330	0	404	323	1007	853	355	0	984
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.79	0.79	0.79	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.4	24.0	24.8	28.9	0.0	26.9	14.0	13.2	9.4	10.9	0.0	14.8
Incr Delay (d2), s/veh	1.0	0.3	0.6	1.2	0.0	4.3	1.0	3.7	0.6	0.7	0.0	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.3	1.9	2.5	0.0	4.5	1.1	9.3	2.0	0.9	0.0	13.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.4	24.3	25.5	30.1	0.0	31.2	15.0	16.9	10.0	11.6	0.0	24.0
LnGrp LOS	C	C	C	C	A	C	B	B	B	B	A	C
Approach Vol, veh/h		275			400			1123				974
Approach Delay, s/veh		27.0			30.8			15.2				22.3
Approach LOS		C			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	44.9		20.9	9.3	44.8		20.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	38.4		18.0	5.5	38.0		18.0				
Max Q Clear Time (g_c+I1), s	4.5	24.5		16.2	4.8	31.3		13.8				
Green Ext Time (p_c), s	0.0	5.2		0.2	0.0	3.4		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				21.1								
HCM 6th LOS				C								

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	94	137	57	17	150	40	62	148	36	31	151	85
Future Vol, veh/h	94	137	57	17	150	40	62	148	36	31	151	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	149	62	18	163	43	67	161	39	34	164	92
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	11.8	12.3	16.2	16.4
HCM LOS	B	B	C	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	25%	100%	0%	0%	100%	0%	0%	12%
Vol Thru, %	60%	0%	100%	0%	0%	100%	0%	57%
Vol Right, %	15%	0%	0%	100%	0%	0%	100%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	246	94	137	57	17	150	40	267
LT Vol	62	94	0	0	17	0	0	31
Through Vol	148	0	137	0	0	150	0	151
RT Vol	36	0	0	57	0	0	40	85
Lane Flow Rate	267	102	149	62	18	163	43	290
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.504	0.212	0.287	0.107	0.039	0.321	0.077	0.529
Departure Headway (Hd)	6.786	7.452	6.936	6.215	7.613	7.097	6.374	6.566
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	535	481	518	576	470	505	561	551
Service Time	4.498	5.198	4.682	3.96	5.363	4.846	4.123	4.277
HCM Lane V/C Ratio	0.499	0.212	0.288	0.108	0.038	0.323	0.077	0.526
HCM Control Delay	16.2	12.2	12.5	9.7	10.7	13.2	9.7	16.4
HCM Lane LOS	C	B	B	A	B	B	A	C
HCM 95th-tile Q	2.8	0.8	1.2	0.4	0.1	1.4	0.2	3.1

Intersection	
Intersection Delay, s/veh	42.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	55	302	85	55	262	101	50	156	52	120	218	45
Future Vol, veh/h	55	302	85	55	262	101	50	156	52	120	218	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	328	92	60	285	110	54	170	57	130	237	49
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	31.7	24.9	31.5	81.6
HCM LOS	D	C	D	F

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	19%	100%	0%	0%	100%	0%	0%	31%
Vol Thru, %	60%	0%	100%	0%	0%	100%	0%	57%
Vol Right, %	20%	0%	0%	100%	0%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	258	55	302	85	55	262	101	383
LT Vol	50	55	0	0	55	0	0	120
Through Vol	156	0	302	0	0	262	0	218
RT Vol	52	0	0	85	0	0	101	45
Lane Flow Rate	280	60	328	92	60	285	110	416
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.707	0.155	0.803	0.21	0.156	0.705	0.252	1.026
Departure Headway (Hd)	9.302	9.685	9.155	8.413	9.794	9.263	8.52	8.872
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	393	372	397	430	368	393	424	412
Service Time	7.002	7.385	6.855	6.113	7.494	6.963	6.22	6.546
HCM Lane V/C Ratio	0.712	0.161	0.826	0.214	0.163	0.725	0.259	1.01
HCM Control Delay	31.5	14.2	40.1	13.3	14.3	31.3	14.1	81.6
HCM Lane LOS	D	B	E	B	B	D	B	F
HCM 95th-tile Q	5.3	0.5	7.1	0.8	0.5	5.2	1	13.2

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	2	89	4	1	5	79	523	4	2	447	108
Future Volume (veh/h)	95	2	89	4	1	5	79	523	4	2	447	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	2	97	4	1	5	86	568	4	2	486	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	173	146	18	5	20	638	2540	18	646	2495	1113
Arrive On Green	0.09	0.09	0.09	0.01	0.01	0.01	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1781	1870	1585	1439	360	1585	816	3617	25	840	3554	1585
Grp Volume(v), veh/h	103	2	97	5	0	5	86	279	293	2	486	117
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1798	0	1585	816	1777	1866	840	1777	1585
Q Serve(g_s), s	3.9	0.1	4.1	0.2	0.0	0.2	2.8	3.9	3.9	0.1	3.3	1.7
Cycle Q Clear(g_c), s	3.9	0.1	4.1	0.2	0.0	0.2	6.1	3.9	3.9	3.9	3.3	1.7
Prop In Lane	1.00		1.00	0.80		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	165	173	146	23	0	20	638	1248	1310	646	2495	1113
V/C Ratio(X)	0.63	0.01	0.66	0.22	0.00	0.25	0.13	0.22	0.22	0.00	0.19	0.11
Avail Cap(c_a), veh/h	471	494	419	462	0	408	638	1248	1310	646	2495	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	30.6	28.9	30.7	34.2	0.0	34.2	4.7	3.7	3.7	4.4	3.6	3.4
Incr Delay (d2), s/veh	3.9	0.0	5.0	4.8	0.0	6.4	0.4	0.4	0.4	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.7	0.1	0.0	0.1	0.4	0.9	1.0	0.0	0.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	28.9	35.8	39.0	0.0	40.6	5.1	4.1	4.1	4.4	3.7	3.5
LnGrp LOS	C	C	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		202			10			658			605	
Approach Delay, s/veh		35.0			39.8			4.2			3.7	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		53.7		11.0		53.7		5.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.5		20.0		18.0				
Max Q Clear Time (g_c+I1), s		8.1		6.1		5.9		2.2				
Green Ext Time (p_c), s		3.0		0.5		2.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			8.5									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	4	249	4	0	5	112	295	1	5	450	172
Future Volume (veh/h)	168	4	249	4	0	5	112	295	1	5	450	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	4	271	4	0	5	122	321	1	5	489	187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	361	379	322	20	0	18	506	2154	7	688	2107	940
Arrive On Green	0.20	0.20	0.20	0.01	0.00	0.01	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	763	3634	11	1058	3554	1585
Grp Volume(v), veh/h	183	4	271	4	0	5	122	157	165	5	489	187
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	763	1777	1868	1058	1777	1585
Q Serve(g_s), s	6.4	0.1	11.5	0.2	0.0	0.2	6.3	2.8	2.8	0.1	4.5	3.8
Cycle Q Clear(g_c), s	6.4	0.1	11.5	0.2	0.0	0.2	10.8	2.8	2.8	2.9	4.5	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	361	379	322	20	0	18	506	1053	1108	688	2107	940
V/C Ratio(X)	0.51	0.01	0.84	0.20	0.00	0.28	0.24	0.15	0.15	0.01	0.23	0.20
Avail Cap(c_a), veh/h	458	481	408	458	0	408	506	1053	1108	688	2107	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	24.8	22.3	26.8	34.3	0.0	34.3	9.3	6.4	6.4	7.0	6.7	6.6
Incr Delay (d2), s/veh	1.1	0.0	12.2	4.6	0.0	7.9	1.1	0.3	0.3	0.0	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	5.2	0.1	0.0	0.1	1.0	0.9	0.9	0.0	1.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	22.3	39.0	38.9	0.0	42.2	10.4	6.7	6.7	7.0	7.0	7.0
LnGrp LOS	C	C	D	D	A	D	B	A	A	A	A	A
Approach Vol, veh/h		458			9			444			681	
Approach Delay, s/veh		33.6			40.7			7.7			7.0	
Approach LOS		C			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.0		18.7		46.0		5.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		18.0		20.5		18.0				
Max Q Clear Time (g_c+I1), s		12.8		13.5		6.5		2.2				
Green Ext Time (p_c), s		1.5		0.7		3.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			15.0									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 22: Indian Hill Blvd & Arrow Hwy

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	224	628	222	140	486	197	187	869	346	257	746	189
Future Volume (veh/h)	224	628	222	140	486	197	187	869	346	257	746	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	683	241	152	528	214	203	945	376	279	811	205
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	836	373	187	792	353	224	1131	505	251	938	237
Arrive On Green	0.12	0.24	0.24	0.11	0.22	0.22	0.13	0.32	0.32	0.14	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	2809	710
Grp Volume(v), veh/h	243	683	241	152	528	214	203	945	376	279	513	503
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1743
Q Serve(g_s), s	10.6	16.4	12.3	7.5	12.2	10.9	10.1	22.2	19.1	12.7	24.3	24.3
Cycle Q Clear(g_c), s	10.6	16.4	12.3	7.5	12.2	10.9	10.1	22.2	19.1	12.7	24.3	24.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	210	836	373	187	792	353	224	1131	505	251	593	582
V/C Ratio(X)	1.16	0.82	0.65	0.81	0.67	0.61	0.91	0.84	0.75	1.11	0.86	0.86
Avail Cap(c_a), veh/h	210	967	431	299	1145	511	224	1131	505	251	593	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00	0.41	0.41	0.41
Uniform Delay (d), s/veh	39.7	32.6	31.0	39.4	31.9	31.4	38.8	28.5	27.4	38.7	28.1	28.1
Incr Delay (d2), s/veh	111.4	4.9	2.7	7.7	0.9	1.5	36.2	7.4	9.6	70.3	7.1	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	7.4	4.9	3.6	5.2	4.2	6.6	10.3	8.3	10.3	11.1	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	151.1	37.4	33.7	47.1	32.8	32.9	75.0	35.8	37.0	109.0	35.2	35.3
LnGrp LOS	F	D	C	D	C	C	E	D	D	F	D	D
Approach Vol, veh/h		1167			894			1524			1295	
Approach Delay, s/veh		60.3			35.3			41.4			51.1	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.2	33.1	14.0	25.7	15.8	34.5	15.1	24.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.7	19.7	15.1	24.5	11.3	21.1	10.6	29.0				
Max Q Clear Time (g_c+I1), s	14.7	24.2	9.5	18.4	12.1	26.3	12.6	14.2				
Green Ext Time (p_c), s	0.0	0.0	0.2	2.8	0.0	0.0	0.0	3.8				
Intersection Summary												
HCM 6th Ctrl Delay			47.4									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 22: Indian Hill Blvd & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	
Traffic Volume (veh/h)	203	1101	171	126	568	193	192	698	410	256	757	216
Future Volume (veh/h)	203	1101	171	126	568	193	192	698	410	256	757	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	221	1197	186	137	617	210	209	759	446	278	823	235
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	1179	526	147	972	433	219	908	405	296	816	233
Arrive On Green	0.14	0.33	0.33	0.08	0.27	0.27	0.12	0.26	0.26	0.17	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	2728	779
Grp Volume(v), veh/h	221	1197	186	137	617	210	209	759	446	278	536	522
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1730
Q Serve(g_s), s	13.4	36.5	9.8	8.4	16.8	12.2	12.8	22.2	28.1	17.0	32.9	32.9
Cycle Q Clear(g_c), s	13.4	36.5	9.8	8.4	16.8	12.2	12.8	22.2	28.1	17.0	32.9	32.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	251	1179	526	147	972	433	219	908	405	296	531	517
V/C Ratio(X)	0.88	1.02	0.35	0.93	0.63	0.48	0.96	0.84	1.10	0.94	1.01	1.01
Avail Cap(c_a), veh/h	290	1179	526	147	972	433	219	908	405	296	531	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	46.3	36.8	27.8	50.1	35.1	33.5	48.0	38.8	40.9	45.3	38.5	38.6
Incr Delay (d2), s/veh	23.0	30.0	0.4	51.8	1.3	0.8	48.4	9.0	75.0	25.6	32.1	32.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	20.4	3.7	5.8	7.4	4.8	8.6	10.7	19.2	9.5	18.8	18.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.3	66.8	28.2	101.9	36.4	34.3	96.3	47.8	116.0	70.9	70.6	71.2
LnGrp LOS	E	F	C	F	D	C	F	D	F	E	F	F
Approach Vol, veh/h		1604			964			1414			1336	
Approach Delay, s/veh		62.7			45.3			76.5			70.9	
Approach LOS		E			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.8	32.6	13.6	41.0	18.0	37.4	20.0	34.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	18.3	28.1	9.1	36.5	13.5	32.9	17.9	27.7				
Max Q Clear Time (g_c+I1), s	19.0	30.1	10.4	38.5	14.8	34.9	15.4	18.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.3				
Intersection Summary												
HCM 6th Ctrl Delay			65.2									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕			↕		↗	↕	↖
Traffic Volume (veh/h)	71	1094	51	27	732	98	48	51	42	95	57	79
Future Volume (veh/h)	71	1094	51	27	732	98	48	51	42	95	57	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	1189	55	29	796	107	52	55	46	103	62	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	289	1483	69	202	1349	181	265	273	190	678	732	620
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	617	3459	160	447	3148	423	430	697	485	1294	1870	1585
Grp Volume(v), veh/h	77	611	633	29	449	454	153	0	0	103	62	86
Grp Sat Flow(s),veh/h/ln	617	1777	1842	447	1777	1794	1613	0	0	1294	1870	1585
Q Serve(g_s), s	5.5	15.0	15.0	3.0	9.7	9.7	0.0	0.0	0.0	0.0	1.0	1.7
Cycle Q Clear(g_c), s	15.1	15.0	15.0	18.0	9.7	9.7	2.9	0.0	0.0	1.9	1.0	1.7
Prop In Lane	1.00		0.09	1.00		0.24	0.34		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	289	762	789	202	762	769	728	0	0	678	732	620
V/C Ratio(X)	0.27	0.80	0.80	0.14	0.59	0.59	0.21	0.00	0.00	0.15	0.08	0.14
Avail Cap(c_a), veh/h	302	800	829	211	800	807	728	0	0	678	732	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.53	0.74	0.74	0.74	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	12.4	12.4	20.3	10.9	10.9	10.1	0.0	0.0	9.8	9.6	9.8
Incr Delay (d2), s/veh	0.3	3.1	3.0	0.2	0.8	0.8	0.7	0.0	0.0	0.5	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.3	5.5	0.3	3.2	3.2	1.1	0.0	0.0	0.7	0.4	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	15.5	15.4	20.5	11.7	11.7	10.8	0.0	0.0	10.3	9.8	10.3
LnGrp LOS	B	B	B	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		1321			932			153			251	
Approach Delay, s/veh		15.6			12.0			10.8			10.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.1		25.9		24.1		25.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		4.9		17.1		3.9		20.0				
Green Ext Time (p_c), s		0.6		3.7		0.8		1.4				
Intersection Summary												
HCM 6th Ctrl Delay				13.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	1612	56	43	751	82	43	50	44	119	75	69
Future Volume (veh/h)	57	1612	56	43	751	82	43	50	44	119	75	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	1752	61	47	816	89	47	54	48	129	82	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	358	1898	66	140	1750	191	197	220	160	550	577	489
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	616	3504	121	258	3231	352	383	712	520	1293	1870	1585
Grp Volume(v), veh/h	62	885	928	47	449	456	149	0	0	129	82	75
Grp Sat Flow(s),veh/h/ln	616	1777	1848	258	1777	1807	1616	0	0	1293	1870	1585
Q Serve(g_s), s	4.1	27.3	27.7	4.8	9.3	9.3	0.0	0.0	0.0	0.0	1.9	2.1
Cycle Q Clear(g_c), s	13.4	27.3	27.7	32.5	9.3	9.3	3.8	0.0	0.0	3.2	1.9	2.1
Prop In Lane	1.00		0.07	1.00		0.20	0.32		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	358	962	1001	140	962	979	577	0	0	550	577	489
V/C Ratio(X)	0.17	0.92	0.93	0.33	0.47	0.47	0.26	0.00	0.00	0.23	0.14	0.15
Avail Cap(c_a), veh/h	358	962	1001	140	962	979	577	0	0	550	577	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.19	0.19	0.19	0.77	0.77	0.77	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	12.6	12.7	29.0	8.4	8.4	15.7	0.0	0.0	15.5	15.0	15.1
Incr Delay (d2), s/veh	0.0	3.2	3.5	1.1	0.3	0.3	1.1	0.0	0.0	1.0	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	9.2	9.8	0.7	2.9	3.0	1.6	0.0	0.0	1.4	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	15.8	16.1	30.0	8.7	8.7	16.8	0.0	0.0	16.5	15.5	15.7
LnGrp LOS	B	B	B	C	A	A	B	A	A	B	B	B
Approach Vol, veh/h		1875			952			149			286	
Approach Delay, s/veh		15.9			9.8			16.8			16.0	
Approach LOS		B			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		37.0		23.0		37.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		5.8		29.7		5.2		34.5				
Green Ext Time (p_c), s		0.6		2.5		0.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				14.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕		↗	↕		↖	↕	↗
Traffic Volume (veh/h)	265	632	49	59	585	94	80	278	45	88	201	239
Future Volume (veh/h)	265	632	49	59	585	94	80	278	45	88	201	239
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	288	687	53	64	636	102	87	302	49	96	218	260
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	1232	95	87	716	115	111	838	134	123	523	443
Arrive On Green	0.18	0.37	0.37	0.05	0.23	0.23	0.06	0.27	0.27	0.07	0.28	0.28
Sat Flow, veh/h	1781	3343	258	1781	3068	491	1781	3067	492	1781	1870	1585
Grp Volume(v), veh/h	288	365	375	64	368	370	87	174	177	96	218	260
Grp Sat Flow(s),veh/h/ln	1781	1777	1824	1781	1777	1782	1781	1777	1782	1781	1870	1585
Q Serve(g_s), s	11.8	12.2	12.3	2.7	15.0	15.1	3.6	5.9	6.0	4.0	7.1	10.6
Cycle Q Clear(g_c), s	11.8	12.2	12.3	2.7	15.0	15.1	3.6	5.9	6.0	4.0	7.1	10.6
Prop In Lane	1.00		0.14	1.00		0.28	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	328	655	672	87	415	416	111	486	487	123	523	443
V/C Ratio(X)	0.88	0.56	0.56	0.73	0.89	0.89	0.78	0.36	0.36	0.78	0.42	0.59
Avail Cap(c_a), veh/h	344	655	672	216	426	428	131	486	487	131	523	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.57	0.57	0.57	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	18.8	18.8	35.2	27.8	27.8	34.6	21.9	22.0	34.4	22.0	23.3
Incr Delay (d2), s/veh	13.3	0.6	0.6	11.1	19.4	19.7	22.3	2.0	2.1	24.6	2.4	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	4.5	4.6	1.4	8.1	8.2	2.2	2.6	2.7	2.5	3.4	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	19.4	19.4	46.3	47.2	47.6	56.9	24.0	24.1	58.9	24.5	28.9
LnGrp LOS	D	B	B	D	D	D	E	C	C	E	C	C
Approach Vol, veh/h		1028			802			438			574	
Approach Delay, s/veh		26.0			47.3			30.6			32.2	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	25.0	8.2	32.1	9.2	25.5	18.3	22.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	19.0	9.1	23.4	5.5	19.0	14.5	18.0				
Max Q Clear Time (g_c+I1), s	6.0	8.0	4.7	14.3	5.6	12.6	13.8	17.1				
Green Ext Time (p_c), s	0.0	1.4	0.0	2.8	0.0	1.2	0.1	0.4				
Intersection Summary												
HCM 6th Ctrl Delay				34.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	867	30	46	575	113	61	186	47	191	244	188
Future Volume (veh/h)	151	867	30	46	575	113	61	186	47	191	244	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	942	33	50	625	123	66	202	51	208	265	204
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	1075	38	75	700	137	86	812	200	247	707	599
Arrive On Green	0.11	0.31	0.31	0.04	0.24	0.24	0.05	0.29	0.29	0.14	0.38	0.38
Sat Flow, veh/h	1781	3502	123	1781	2961	582	1781	2825	697	1781	1870	1585
Grp Volume(v), veh/h	164	478	497	50	375	373	66	125	128	208	265	204
Grp Sat Flow(s),veh/h/ln	1781	1777	1848	1781	1777	1766	1781	1777	1745	1781	1870	1585
Q Serve(g_s), s	7.2	20.4	20.4	2.2	16.3	16.4	2.9	4.3	4.5	9.1	8.2	7.4
Cycle Q Clear(g_c), s	7.2	20.4	20.4	2.2	16.3	16.4	2.9	4.3	4.5	9.1	8.2	7.4
Prop In Lane	1.00		0.07	1.00		0.33	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	201	545	567	75	420	417	86	511	502	247	707	599
V/C Ratio(X)	0.82	0.88	0.88	0.67	0.89	0.89	0.77	0.25	0.25	0.84	0.37	0.34
Avail Cap(c_a), veh/h	234	553	575	114	433	430	160	511	502	278	707	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.30	0.30	0.30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	26.3	26.3	37.8	29.6	29.6	37.6	21.8	21.9	33.6	18.0	17.8
Incr Delay (d2), s/veh	6.0	5.1	4.9	9.9	19.9	20.4	13.5	1.1	1.2	18.7	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	8.5	8.8	1.1	8.8	8.8	1.6	1.9	1.9	5.2	3.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	31.3	31.2	47.7	49.4	49.9	51.1	23.0	23.1	52.3	19.5	19.3
LnGrp LOS	D	C	C	D	D	D	D	C	C	D	B	B
Approach Vol, veh/h		1139			798			319			677	
Approach Delay, s/veh		32.6			49.5			28.9			29.5	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.6	27.5	7.9	29.1	8.3	34.7	13.5	23.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	19.5	5.1	24.9	7.2	24.8	10.5	19.5				
Max Q Clear Time (g_c+I1), s	11.1	6.5	4.2	22.4	4.9	10.2	9.2	18.4				
Green Ext Time (p_c), s	0.1	1.1	0.0	1.4	0.0	2.0	0.1	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				36.1								
HCM 6th LOS				D								

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	68	67	380	354	35
Future Vol, veh/h	28	68	67	380	354	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	74	73	413	385	38

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	738	193	423	0	0
Stage 1	385	-	-	-	-
Stage 2	353	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-
Pot Cap-1 Maneuver	353	816	1133	-	-
Stage 1	657	-	-	-	-
Stage 2	682	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	330	816	1133	-	-
Mov Cap-2 Maneuver	330	-	-	-	-
Stage 1	615	-	-	-	-
Stage 2	682	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1133	-	571	-	-
HCM Lane V/C Ratio	0.064	-	0.183	-	-
HCM Control Delay (s)	8.4	-	12.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-

HCM 6th TWSC
 25: Claremont Blvd & 9th St

04/17/2024

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↑↑	↑↑	↔
Traffic Vol, veh/h	30	65	53	332	337	37
Future Vol, veh/h	30	65	53	332	337	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	71	58	361	366	40

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	663	183	406	0	-	0
Stage 1	366	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	394	828	1149	-	-	-
Stage 1	672	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	374	828	1149	-	-	-
Mov Cap-2 Maneuver	374	-	-	-	-	-
Stage 1	638	-	-	-	-	-
Stage 2	728	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1149	-	599	-	-
HCM Lane V/C Ratio	0.05	-	0.172	-	-
HCM Control Delay (s)	8.3	-	12.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	54	0	0	59	0	0
Future Vol, veh/h	54	0	0	59	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	59	0	0	64	0	0

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	30
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	1038
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	1038
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	66	0	0	51	0	0
Future Vol, veh/h	66	0	0	51	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	0	0	55	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	36
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	-	0	1029
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	1029
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	37	0	0	40
Future Vol, veh/h	0	0	37	0	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	40	0	0	43

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	20	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	1053	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1053	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	38	0	0	32
Future Vol, veh/h	0	0	38	0	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	41	0	0	35

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	21	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1051	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1051	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	98	105	0
Future Vol, veh/h	0	0	0	98	105	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	103	111	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	56	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	847	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	847	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

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

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	130	104	0
Future Vol, veh/h	0	0	0	130	104	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	141	113	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	57	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	846	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	846	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

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

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

04/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↑	↗	↙	↕		↗	↕	↗
Traffic Volume (veh/h)	0	0	0	44	0	40	2	902	42	27	930	0
Future Volume (veh/h)	0	0	0	44	0	40	2	902	42	27	930	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	46	0	42	2	949	44	28	979	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	91	153	129	5	1748	81	117	2740	0
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.08	0.00	0.51	0.51	0.03	0.54	0.00
Sat Flow, veh/h	0	-63995	0	1781	1870	1585	1781	3458	160	3456	5274	0
Grp Volume(v), veh/h	0	0	0	46	0	42	2	488	505	28	979	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1842	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	0.9	0.0	6.7	6.7	0.3	3.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.9	0.0	0.9	0.0	6.7	6.7	0.3	3.9	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.09	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	91	153	129	5	898	931	117	2740	0
V/C Ratio(X)	0.00	0.00	0.00	0.50	0.00	0.32	0.40	0.54	0.54	0.24	0.36	0.00
Avail Cap(c_a), veh/h	0	945	0	250	945	801	250	898	931	485	2740	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.5	0.0	15.4	17.7	6.0	6.0	16.8	4.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.2	0.0	1.4	44.5	2.4	2.3	1.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.4	0.0	0.3	0.1	1.9	2.0	0.1	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	20.7	0.0	16.9	62.2	8.4	8.3	17.8	5.1	0.0
LnGrp LOS	A	A	A	C	A	B	E	A	A	B	A	A
Approach Vol, veh/h		0			88			995			1007	
Approach Delay, s/veh		0.0			18.9			8.4			5.4	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	22.5	6.3	1.1	4.6	23.6		7.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	8.7	2.9	0.0	2.0	5.9		2.9				
Green Ext Time (p_c), s	0.0	4.3	0.0	0.0	0.0	5.4		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				7.4								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	0	1	0	83	1	79	0	850	49	22	873	0
Future Volume (veh/h)	0	1	0	83	1	79	0	850	49	22	873	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	0	90	1	86	0	924	53	24	949	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	140	0	135	474	402	4	1401	80	100	2765	0
Arrive On Green	0.00	0.07	0.00	0.08	0.25	0.25	0.00	0.41	0.41	0.03	0.54	0.00
Sat Flow, veh/h	0	1870	0	1781	1870	1585	1781	3416	196	3456	5274	0
Grp Volume(v), veh/h	0	1	0	90	1	86	0	481	496	24	949	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	1781	1777	1835	1728	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	2.2	0.0	1.9	0.0	9.6	9.6	0.3	4.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.2	0.0	1.9	0.0	9.6	9.6	0.3	4.6	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	0	140	0	135	474	402	4	729	753	100	2765	0
V/C Ratio(X)	0.00	0.01	0.00	0.67	0.00	0.21	0.00	0.66	0.66	0.24	0.34	0.00
Avail Cap(c_a), veh/h	0	767	0	203	767	650	203	729	753	394	2765	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	18.8	0.0	19.7	12.2	12.9	0.0	10.5	10.5	20.8	5.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	5.5	0.0	0.3	0.0	4.6	4.5	1.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.0	0.0	0.6	0.0	3.8	3.9	0.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.8	0.0	25.3	12.2	13.2	0.0	15.1	15.0	22.1	6.0	0.0
LnGrp LOS	A	B	A	C	B	B	A	B	B	C	A	A
Approach Vol, veh/h		1			177			977			973	
Approach Delay, s/veh		18.8			19.3			15.0			6.4	
Approach LOS		B			B			B			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	22.5	7.8	7.8	0.0	28.3		15.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	11.6	4.2	2.0	0.0	6.6		3.9				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.0	5.0		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				11.4								
HCM 6th LOS				B								

APPENDIX F

























HORIZON YEAR WITH PROJECT LEVEL-OF-SERVICE

WORKSHEET

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

04/05/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	737	277	407	1261	73	151	66	302	46	215	75
Future Volume (veh/h)	39	737	277	407	1261	73	151	66	302	46	215	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	801	301	442	1371	79	164	72	328	50	234	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	264	2468	1101	390	2468	1101	213	365	326	80	535	182
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	367	3554	1585	512	3554	1585	1064	1777	1585	985	2600	887
Grp Volume(v), veh/h	42	801	301	442	1371	79	164	72	328	50	158	158
Grp Sat Flow(s),veh/h/ln	367	1777	1585	512	1777	1585	1064	1777	1585	985	1777	1711
Q Serve(g_s), s	5.8	8.0	6.4	54.5	17.3	1.4	11.2	3.0	18.5	0.0	7.0	7.3
Cycle Q Clear(g_c), s	23.1	8.0	6.4	62.5	17.3	1.4	18.5	3.0	18.5	18.5	7.0	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	264	2468	1101	390	2468	1101	213	365	326	80	365	352
V/C Ratio(X)	0.16	0.32	0.27	1.13	0.56	0.07	0.77	0.20	1.01	0.62	0.43	0.45
Avail Cap(c_a), veh/h	264	2468	1101	390	2468	1101	213	365	326	80	365	352
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.55	0.55	0.55	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	5.4	5.2	23.3	6.8	4.4	40.5	29.6	35.8	45.0	31.2	31.3
Incr Delay (d2), s/veh	0.3	0.1	0.1	77.1	0.2	0.0	19.5	1.0	46.6	31.6	3.7	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.5	1.8	17.0	5.3	0.4	4.8	1.4	11.2	1.8	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.9	5.5	5.3	100.4	7.0	4.4	59.9	30.6	82.3	76.6	34.9	35.4
LnGrp LOS	B	A	A	F	A	A	E	C	F	E	C	D
Approach Vol, veh/h		1144			1892			564			366	
Approach Delay, s/veh		5.7			28.7			69.2			40.8	
Approach LOS		A			C			E			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		67.0		23.0		67.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		62.5		18.5		62.5				
Max Q Clear Time (g_c+I1), s		20.5		25.1		20.5		64.5				
Green Ext Time (p_c), s		0.0		9.3		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				29.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

























04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	1043	127	241	974	74	261	126	298	55	89	48
Future Volume (veh/h)	64	1043	127	241	974	74	261	126	298	55	89	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	1134	138	262	1059	80	284	137	324	60	97	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	362	2332	1040	336	2332	1040	331	411	367	121	529	266
Arrive On Green	0.66	0.66	0.66	0.66	0.66	0.66	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	533	3554	1585	496	3554	1585	1239	1777	1585	931	2289	1151
Grp Volume(v), veh/h	70	1134	138	262	1059	80	284	137	324	60	74	75
Grp Sat Flow(s),veh/h/ln	533	1777	1585	496	1777	1585	1239	1777	1585	931	1777	1663
Q Serve(g_s), s	5.9	12.9	2.6	39.6	11.7	1.5	15.6	5.1	15.8	2.7	2.7	2.9
Cycle Q Clear(g_c), s	17.6	12.9	2.6	52.5	11.7	1.5	18.5	5.1	15.8	18.5	2.7	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	362	2332	1040	336	2332	1040	331	411	367	121	411	385
V/C Ratio(X)	0.19	0.49	0.13	0.78	0.45	0.08	0.86	0.33	0.88	0.49	0.18	0.20
Avail Cap(c_a), veh/h	362	2332	1040	336	2332	1040	331	411	367	121	411	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	0.71	0.71	0.71	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.0	6.9	5.2	21.4	6.7	5.0	33.4	25.6	29.7	39.3	24.7	24.8
Incr Delay (d2), s/veh	0.3	0.2	0.1	9.9	0.1	0.0	18.1	1.5	19.4	13.7	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.0	0.7	5.5	3.6	0.4	7.1	2.3	7.8	1.6	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	7.1	5.2	31.3	6.9	5.0	51.4	27.2	49.1	53.0	25.6	25.9
LnGrp LOS	B	A	A	C	A	A	D	C	D	D	C	C
Approach Vol, veh/h		1342			1401			745			209	
Approach Delay, s/veh		7.1			11.3			45.9			33.6	
Approach LOS		A			B			D			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		57.0		23.0		57.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		52.5		18.5		52.5				
Max Q Clear Time (g_c+I1), s		20.5		19.6		20.5		54.5				
Green Ext Time (p_c), s		0.0		12.3		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				18.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

04/05/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	985	326	151	1446	27	361	105	139	74	174	174
Future Volume (veh/h)	83	985	326	151	1446	27	361	105	139	74	174	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	1071	354	164	1572	29	392	114	151	80	189	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	1759	785	224	1759	785	404	664	563	469	664	563
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	317	3554	1585	376	3554	1585	1005	1870	1585	1114	1870	1585
Grp Volume(v), veh/h	90	1071	354	164	1572	29	392	114	151	80	189	189
Grp Sat Flow(s),veh/h/ln	317	1777	1585	376	1777	1585	1005	1870	1585	1114	1870	1585
Q Serve(g_s), s	5.7	13.1	8.7	16.6	24.0	0.6	16.9	2.5	4.1	3.2	4.4	5.2
Cycle Q Clear(g_c), s	29.7	13.1	8.7	29.7	24.0	0.6	21.3	2.5	4.1	5.7	4.4	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	150	1759	785	224	1759	785	404	664	563	469	664	563
V/C Ratio(X)	0.60	0.61	0.45	0.73	0.89	0.04	0.97	0.17	0.27	0.17	0.28	0.34
Avail Cap(c_a), veh/h	150	1759	785	224	1759	785	404	664	563	469	664	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.53	0.53	0.53	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	11.0	9.9	24.7	13.7	7.8	23.9	13.3	13.8	15.2	13.9	14.2
Incr Delay (d2), s/veh	6.2	0.6	0.4	6.4	3.5	0.0	31.9	0.4	0.9	0.8	1.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.4	2.6	2.7	8.6	0.2	9.0	1.0	1.4	0.8	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	11.5	10.2	31.1	17.3	7.8	55.8	13.7	14.7	16.0	15.0	15.8
LnGrp LOS	D	B	B	C	B	A	E	B	B	B	B	B
Approach Vol, veh/h		1515			1765			657			458	
Approach Delay, s/veh		12.6			18.4			39.0			15.5	
Approach LOS		B			B			D			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.8		34.2		25.8		34.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.3		29.7		21.3		29.7				
Max Q Clear Time (g_c+I1), s		23.3		31.7		7.7		31.7				
Green Ext Time (p_c), s		0.0		0.0		1.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				19.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↘	↘	↑↑	↘	↘	↑	↘	↘	↑	↘
Traffic Volume (veh/h)	134	1068	175	213	1122	75	202	95	109	64	94	126
Future Volume (veh/h)	134	1068	175	213	1122	75	202	95	109	64	94	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	1161	190	232	1220	82	220	103	118	70	102	137
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	2401	1071	331	2401	1071	312	420	356	311	420	356
Arrive On Green	0.68	0.68	0.68	0.45	0.45	0.45	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	457	3554	1585	484	3554	1585	1293	1870	1585	1291	1870	1585
Grp Volume(v), veh/h	146	1161	190	232	1220	82	220	103	118	70	102	137
Grp Sat Flow(s),veh/h/ln	457	1777	1585	484	1777	1585	1293	1870	1585	1291	1870	1585
Q Serve(g_s), s	24.0	14.2	4.0	41.5	22.0	2.6	15.1	4.1	5.6	4.2	4.0	6.6
Cycle Q Clear(g_c), s	46.0	14.2	4.0	55.7	22.0	2.6	19.2	4.1	5.6	8.3	4.0	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	277	2401	1071	331	2401	1071	312	420	356	311	420	356
V/C Ratio(X)	0.53	0.48	0.18	0.70	0.51	0.08	0.70	0.25	0.33	0.22	0.24	0.39
Avail Cap(c_a), veh/h	281	2428	1083	334	2428	1083	312	420	356	311	420	356
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.65	0.65	0.65	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	7.0	5.4	30.0	14.0	8.7	36.5	28.6	29.2	32.1	28.6	29.6
Incr Delay (d2), s/veh	1.5	0.1	0.1	4.2	0.1	0.0	10.6	1.2	2.1	1.7	1.4	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.5	1.1	5.3	9.3	0.8	5.6	1.9	2.3	1.4	1.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	7.2	5.4	34.2	14.1	8.7	47.1	29.8	31.3	33.7	30.0	32.8
LnGrp LOS	C	A	A	C	B	A	D	C	C	C	C	C
Approach Vol, veh/h		1497			1534			441			309	
Approach Delay, s/veh		8.5			16.9			38.8			32.1	
Approach LOS		A			B			D			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.7		65.3		24.7		65.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		61.5		19.5		61.5				
Max Q Clear Time (g_c+I1), s		21.2		48.0		10.3		57.7				
Green Ext Time (p_c), s		0.0		8.7		0.8		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				17.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	54	837	250	520	1291	87	236	78	405	91	79	92
Future Volume (veh/h)	54	837	250	520	1291	87	236	78	405	91	79	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	910	272	565	1403	95	257	85	440	99	86	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1008	449	626	1490	664	438	471	399	384	438	391
Arrive On Green	0.05	0.28	0.28	0.18	0.42	0.42	0.06	0.25	0.25	0.06	0.25	0.25
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1777	1585
Grp Volume(v), veh/h	59	910	272	565	1403	95	257	85	440	99	86	100
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	2.6	19.7	11.9	12.8	30.3	3.0	5.1	2.9	20.1	3.3	3.1	4.1
Cycle Q Clear(g_c), s	2.6	19.7	11.9	12.8	30.3	3.0	5.1	2.9	20.1	3.3	3.1	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	1008	449	626	1490	664	438	471	399	384	438	391
V/C Ratio(X)	0.73	0.90	0.61	0.90	0.94	0.14	0.59	0.18	1.10	0.26	0.20	0.26
Avail Cap(c_a), veh/h	111	1031	460	626	1490	664	438	471	399	391	438	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	27.6	24.8	32.1	22.3	14.4	24.4	23.5	29.9	20.5	23.9	24.2
Incr Delay (d2), s/veh	11.5	9.2	1.8	16.3	12.2	0.1	2.0	0.8	75.1	0.4	1.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	8.9	4.3	6.4	13.3	1.0	1.8	1.3	15.3	1.3	1.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	36.8	26.6	48.4	34.5	14.5	26.3	24.3	105.1	20.8	24.9	25.8
LnGrp LOS	D	D	C	D	C	B	C	C	F	C	C	C
Approach Vol, veh/h		1241			2063			782			285	
Approach Delay, s/veh		35.1			37.4			70.4			23.8	
Approach LOS		D			D			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	24.6	19.0	27.2	9.6	24.2	8.2	38.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.3	14.5	23.2	5.1	19.2	5.0	32.7				
Max Q Clear Time (g_c+I1), s	5.3	22.1	14.8	21.7	7.1	6.1	4.6	32.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.0	0.7	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			41.8									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

04/05/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	69	1010	211	495	1045	143	340	136	583	98	85	81
Future Volume (veh/h)	69	1010	211	495	1045	143	340	136	583	98	85	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	1098	229	538	1136	155	370	148	634	107	92	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	1086	484	557	1466	654	481	520	440	320	434	374
Arrive On Green	0.05	0.31	0.31	0.16	0.41	0.41	0.03	0.09	0.09	0.06	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1807	1559
Grp Volume(v), veh/h	75	1098	229	538	1136	155	370	148	634	107	90	90
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1590
Q Serve(g_s), s	3.7	27.5	10.6	13.9	24.8	5.7	8.4	6.6	25.0	4.1	3.7	4.1
Cycle Q Clear(g_c), s	3.7	27.5	10.6	13.9	24.8	5.7	8.4	6.6	25.0	4.1	3.7	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Lane Grp Cap(c), veh/h	96	1086	484	557	1466	654	481	520	440	320	426	382
V/C Ratio(X)	0.78	1.01	0.47	0.97	0.77	0.24	0.77	0.28	1.44	0.33	0.21	0.24
Avail Cap(c_a), veh/h	129	1086	484	557	1466	654	481	520	440	320	426	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	31.3	25.4	37.5	22.8	17.2	28.9	32.5	40.9	23.8	27.4	27.5
Incr Delay (d2), s/veh	17.1	28.4	0.6	29.7	2.7	0.2	6.9	1.3	209.6	0.6	1.1	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	15.1	3.8	7.8	9.8	1.9	3.7	3.2	36.1	1.7	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	59.7	26.0	67.2	25.5	17.4	35.8	33.8	250.5	24.4	28.5	29.0
LnGrp LOS	E	F	C	E	C	B	D	C	F	C	C	C
Approach Vol, veh/h		1402			1829			1152			287	
Approach Delay, s/veh		54.1			37.1			153.7			27.1	
Approach LOS		D			D			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	29.5	19.0	32.0	12.9	26.1	9.4	41.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	25.0	14.5	27.5	8.4	21.6	6.5	35.5				
Max Q Clear Time (g_c+I1), s	6.1	27.0	15.9	29.5	10.4	6.1	5.7	26.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.8	0.0	4.9				
Intersection Summary												
HCM 6th Ctrl Delay			70.3									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp























04/05/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	630	571	29	1236	639	163	0	519	41	0	564
Future Volume (veh/h)	92	630	571	29	1236	639	163	0	519	41	0	564
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	100	685	621	32	1343	695	177	0	564	45	0	613
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	111	1446	645	49	1321	589	808	0	0	808	0	0
Arrive On Green	0.06	0.41	0.41	0.03	0.37	0.37	0.45	0.00	0.00	0.45	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	177		1781	45	
Grp Volume(v), veh/h	100	685	621	32	1343	695	177	20.0		45	18.4	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	C		1781	B	
Q Serve(g_s), s	6.7	17.0	45.9	2.1	44.6	44.6	7.2			1.7		
Cycle Q Clear(g_c), s	6.7	17.0	45.9	2.1	44.6	44.6	7.2			1.7		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	111	1446	645	49	1321	589	808			808		
V/C Ratio(X)	0.90	0.47	0.96	0.66	1.02	1.18	0.22			0.06		
Avail Cap(c_a), veh/h	111	1446	645	94	1321	589	808			808		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	55.9	26.2	34.7	57.8	37.7	37.7	19.9			18.4		
Incr Delay (d2), s/veh	54.7	0.2	26.4	14.0	29.0	97.5	0.1			0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.6	6.9	21.3	1.1	23.6	32.3	2.9			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	110.5	26.4	61.2	71.9	66.7	135.2	20.0			18.4		
LnGrp LOS	F	C	E	E	F	F	C			B		
Approach Vol, veh/h		1406			2070							
Approach Delay, s/veh		47.7			89.8							
Approach LOS		D			F							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	58.9		7.8	53.3	58.9		12.0	49.1				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	8.6		6.3	45.8	12.5		7.5	44.6				
Max Q Clear Time (g_c+I1), s	3.7		4.1	47.9	9.2		8.7	46.6				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			69.6									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/05/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	1129	487	32	924	428	123	0	821	77	0	591
Future Volume (veh/h)	149	1129	487	32	924	428	123	0	821	77	0	591
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	162	1227	529	35	1004	465	134	0	892	84	0	642
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	178	1300	580	55	1055	471	834	0	0	834	0	0
Arrive On Green	0.10	0.37	0.37	0.03	0.30	0.30	0.47	0.00	0.00	0.47	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	134		1781	84	
Grp Volume(v), veh/h	162	1227	529	35	1004	465	134	15.4		84	14.9	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	9.0	33.4	31.8	1.9	27.7	29.2	4.3			2.6		
Cycle Q Clear(g_c), s	9.0	33.4	31.8	1.9	27.7	29.2	4.3			2.6		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	178	1300	580	55	1055	471	834			834		
V/C Ratio(X)	0.91	0.94	0.91	0.63	0.95	0.99	0.16			0.10		
Avail Cap(c_a), veh/h	178	1300	580	89	1055	471	834			834		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	44.6	30.7	30.2	47.9	34.4	35.0	15.3			14.9		
Incr Delay (d2), s/veh	42.6	13.7	18.8	11.3	17.2	38.2	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	5.9	15.6	14.2	1.0	13.7	15.5	1.6			1.0		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.1	44.4	49.0	59.2	51.7	73.1	15.4			14.9		
LnGrp LOS	F	D	D	E	D	E	B			B		
Approach Vol, veh/h		1918			1504							
Approach Delay, s/veh		49.3			58.5							
Approach LOS		D			E							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	51.3		7.6	41.1	51.3		14.5	34.2				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	7.5		5.0	34.7	8.5		10.0	29.7				
Max Q Clear Time (g_c+I1), s	4.6		3.9	35.4	6.3		11.0	31.2				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			51.0									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/04/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	201	2	197	1	0	0	290	528	2	0	476	301
Future Volume (vph)	201	2	197	1	0	0	290	528	2	0	476	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95			0.95	1.00
Frt	1.00	0.92	0.85		1.00		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.98	1.00		0.95		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1528	1504		1770		1770	3537			3539	1583
Flt Permitted	0.95	0.98	1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1681	1528	1504		1863		1770	3537			3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	218	2	214	1	0	0	315	574	2	0	517	327
RTOR Reduction (vph)	0	46	118	0	0	0	0	0	0	0	0	201
Lane Group Flow (vph)	150	99	21	0	1	0	315	576	0	0	517	126
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	13.4	13.4	13.4		1.2		22.6	61.9			34.8	34.8
Effective Green, g (s)	13.4	13.4	13.4		1.2		22.6	61.9			34.8	34.8
Actuated g/C Ratio	0.15	0.15	0.15		0.01		0.25	0.69			0.39	0.39
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	250	227	223		24		444	2432			1368	612
v/s Ratio Prot	c0.09	0.06					c0.18	0.16			c0.15	
v/s Ratio Perm			0.01		c0.00							0.08
v/c Ratio	0.60	0.44	0.09		0.04		0.71	0.24			0.38	0.21
Uniform Delay, d1	35.8	34.9	33.1		43.8		30.7	5.2			19.8	18.4
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	3.8	1.3	0.2		0.7		5.1	0.2			0.8	0.8
Delay (s)	39.6	36.2	33.2		44.5		35.9	5.5			20.6	19.2
Level of Service	D	D	C		D		D	A			C	B
Approach Delay (s)		36.4			44.5			16.2			20.1	
Approach LOS		D			D			B			C	
Intersection Summary												
HCM 2000 Control Delay			21.8				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)				18.0	
Intersection Capacity Utilization			50.1%				ICU Level of Service				A	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis























5: Monte Vista Ave & Claremont Blvd

04/04/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	328	0	260	4	9	1	292	698	2	1	490	233
Future Volume (vph)	328	0	260	4	9	1	292	698	2	1	490	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.94	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.97	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1551	1504		1822		1770	3538		1770	3539	1583
Flt Permitted	0.95	0.97	1.00		1.00		0.95	1.00		0.36	1.00	1.00
Satd. Flow (perm)	1681	1551	1504		1846		1770	3538		676	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	357	0	283	4	10	1	317	759	2	1	533	253
RTOR Reduction (vph)	0	105	166	0	1	0	0	0	0	0	0	160
Lane Group Flow (vph)	221	113	35	0	14	0	317	761	0	1	533	93
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	15.8	15.8	15.8		1.6		22.8	59.1		31.8	31.8	31.8
Effective Green, g (s)	15.8	15.8	15.8		1.6		22.8	59.1		31.8	31.8	31.8
Actuated g/C Ratio	0.18	0.18	0.18		0.02		0.25	0.66		0.35	0.35	0.35
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	295	272	264		32		448	2323		238	1250	559
v/s Ratio Prot	c0.13	0.07					c0.18	0.22			c0.15	
v/s Ratio Perm			0.02		c0.01					0.00		0.06
v/c Ratio	0.75	0.42	0.13		0.44		0.71	0.33		0.00	0.43	0.17
Uniform Delay, d1	35.2	33.0	31.3		43.8		30.6	6.8		18.8	22.2	20.0
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		0.44	0.43	0.43
Incremental Delay, d2	10.0	1.0	0.2		9.3		5.1	0.4		0.0	0.7	0.4
Delay (s)	45.2	34.0	31.6		53.1		35.6	7.1		8.4	10.2	9.0
Level of Service	D	C	C		D		D	A		A	B	A
Approach Delay (s)		37.1			53.1			15.5			9.8	
Approach LOS		D			D			B			A	
Intersection Summary												
HCM 2000 Control Delay			19.4				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			18.0		
Intersection Capacity Utilization			59.4%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												























HCM 6th Signalized Intersection Summary
6: Foothill Blvd & Indian Hill Blvd

04/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	780	172	118	876	182	231	362	103	281	540	209
Future Volume (veh/h)	123	780	172	118	876	182	231	362	103	281	540	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	848	187	128	952	198	251	393	112	305	587	227
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	834	184	141	1005	448	257	767	216	336	607	514
Arrive On Green	0.08	0.29	0.29	0.08	0.28	0.28	0.14	0.28	0.28	0.19	0.32	0.32
Sat Flow, veh/h	1781	2894	638	1781	3554	1585	1781	2737	771	1781	1870	1585
Grp Volume(v), veh/h	134	521	514	128	952	198	251	254	251	305	587	227
Grp Sat Flow(s),veh/h/ln	1781	1777	1755	1781	1777	1585	1781	1777	1732	1781	1870	1585
Q Serve(g_s), s	8.2	31.7	31.7	7.8	28.9	11.3	15.4	13.2	13.4	18.4	34.0	12.4
Cycle Q Clear(g_c), s	8.2	31.7	31.7	7.8	28.9	11.3	15.4	13.2	13.4	18.4	34.0	12.4
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	151	512	506	141	1005	448	257	498	485	336	607	514
V/C Ratio(X)	0.89	1.02	1.02	0.91	0.95	0.44	0.97	0.51	0.52	0.91	0.97	0.44
Avail Cap(c_a), veh/h	151	512	506	141	1005	448	257	498	485	387	607	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	49.8	39.2	39.2	50.3	38.7	32.3	46.9	33.2	33.3	43.7	36.6	29.3
Incr Delay (d2), s/veh	42.8	44.0	44.3	49.4	17.2	0.7	48.9	3.7	3.9	18.1	24.4	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	19.5	19.3	5.4	14.5	4.3	10.2	6.1	6.1	9.8	19.3	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.7	83.2	83.5	99.7	55.8	33.0	95.8	36.9	37.2	61.8	60.9	31.3
LnGrp LOS	F	F	F	F	E	C	F	D	D	E	E	C
Approach Vol, veh/h		1169			1278			756			1119	
Approach Delay, s/veh		84.4			56.7			56.6			55.1	
Approach LOS		F			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.3	35.3	13.2	36.2	20.4	40.2	13.8	35.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	23.9	27.7	8.7	31.7	15.9	35.7	9.3	31.1				
Max Q Clear Time (g_c+I1), s	20.4	15.4	9.8	33.7	17.4	36.0	10.2	30.9				
Green Ext Time (p_c), s	0.3	2.3	0.0	0.0	0.0	0.0	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			63.8									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary
6: Foothill Blvd & Indian Hill Blvd

04/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	972	243	127	926	182	285	453	127	170	314	121
Future Volume (veh/h)	105	972	243	127	926	182	285	453	127	170	314	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	1057	264	138	1007	198	310	492	138	185	341	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	1024	254	151	1309	584	315	686	191	218	365	309
Arrive On Green	0.08	0.36	0.36	0.09	0.37	0.37	0.18	0.25	0.25	0.12	0.19	0.19
Sat Flow, veh/h	1781	2820	701	1781	3554	1585	1781	2744	765	1781	1870	1585
Grp Volume(v), veh/h	114	664	657	138	1007	198	310	318	312	185	341	132
Grp Sat Flow(s),veh/h/ln	1781	1777	1744	1781	1777	1585	1781	1777	1733	1781	1870	1585
Q Serve(g_s), s	6.3	36.3	36.3	7.7	25.0	9.0	17.3	16.3	16.5	10.2	17.9	7.3
Cycle Q Clear(g_c), s	6.3	36.3	36.3	7.7	25.0	9.0	17.3	16.3	16.5	10.2	17.9	7.3
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	142	645	633	151	1309	584	315	444	433	218	365	309
V/C Ratio(X)	0.80	1.03	1.04	0.91	0.77	0.34	0.98	0.72	0.72	0.85	0.93	0.43
Avail Cap(c_a), veh/h	169	645	633	151	1309	584	315	444	433	258	365	309
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	45.2	31.8	31.9	45.4	27.8	22.8	41.0	34.3	34.3	43.0	39.6	35.3
Incr Delay (d2), s/veh	20.5	43.1	46.0	47.9	2.9	0.3	46.0	9.5	10.0	16.7	28.7	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	22.2	22.3	5.3	10.5	3.3	11.4	8.0	8.0	5.4	11.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	74.9	77.8	93.2	30.7	23.1	87.0	43.7	44.3	59.7	68.3	38.8
LnGrp LOS	E	F	F	F	C	C	F	D	D	E	E	D
Approach Vol, veh/h		1435			1343			940			658	
Approach Delay, s/veh		75.5			36.0			58.2			60.0	
Approach LOS		E			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	29.5	13.0	40.8	22.2	24.0	12.5	41.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	14.5	22.7	8.5	36.3	17.7	19.5	9.5	35.3				
Max Q Clear Time (g_c+I1), s	12.2	18.5	9.7	38.3	19.3	19.9	8.3	27.0				
Green Ext Time (p_c), s	0.1	1.5	0.0	0.0	0.0	0.0	0.0	4.5				
Intersection Summary												
HCM 6th Ctrl Delay				57.3								
HCM 6th LOS				E								

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗	↘		↔			↔	
Traffic Vol, veh/h	21	1140	80	123	1281	10	1	0	92	0	0	8
Future Vol, veh/h	21	1140	80	123	1281	10	1	0	92	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	1239	87	134	1392	11	1	0	100	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1403	0	0	1326	0	0	2249	2956	620	2326	3032	696
Stage 1	-	-	-	-	-	-	1285	1285	-	1660	1660	-
Stage 2	-	-	-	-	-	-	964	1671	-	666	1372	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	483	-	-	517	-	-	23	14	431	20	13	384
Stage 1	-	-	-	-	-	-	174	233	-	101	153	-
Stage 2	-	-	-	-	-	-	274	151	-	415	212	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	483	-	-	517	-	-	17	10	431	12	9	384
Mov Cap-2 Maneuver	-	-	-	-	-	-	17	10	-	12	9	-
Stage 1	-	-	-	-	-	-	166	222	-	96	113	-
Stage 2	-	-	-	-	-	-	198	112	-	304	202	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.3			19.9			14.6		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	342	483	-	-	517	-	-	384
HCM Lane V/C Ratio	0.296	0.047	-	-	0.259	-	-	0.023
HCM Control Delay (s)	19.9	12.8	-	-	14.4	-	-	14.6
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.2	0.1	-	-	1	-	-	0.1

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗		↔			↔	
Traffic Vol, veh/h	21	1245	60	74	1247	5	0	0	122	0	0	27
Future Vol, veh/h	21	1245	60	74	1247	5	0	0	122	0	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	1353	65	80	1355	5	0	0	133	0	0	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1360	0	0	1418	0	0	2237	2919	677	2238	2979	678
Stage 1	-	-	-	-	-	-	1399	1399	-	1515	1515	-
Stage 2	-	-	-	-	-	-	838	1520	-	723	1464	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	501	-	-	476	-	-	23	15	395	23	14	395
Stage 1	-	-	-	-	-	-	148	206	-	125	180	-
Stage 2	-	-	-	-	-	-	327	179	-	384	191	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	501	-	-	476	-	-	18	12	395	13	11	395
Mov Cap-2 Maneuver	-	-	-	-	-	-	18	12	-	13	11	-
Stage 1	-	-	-	-	-	-	141	197	-	119	150	-
Stage 2	-	-	-	-	-	-	252	149	-	243	182	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.8			18.7			14.8		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	395	501	-	-	476	-	-	395
HCM Lane V/C Ratio	0.336	0.046	-	-	0.169	-	-	0.074
HCM Control Delay (s)	18.7	12.5	-	-	14.1	-	-	14.8
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0.6	-	-	0.2

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖	↑↑			↕			↕	
Traffic Volume (veh/h)	4	1151	82	70	1404	11	11	3	17	12	7	0
Future Volume (veh/h)	4	1151	82	70	1404	11	11	3	17	12	7	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	1251	89	76	1526	12	12	3	18	13	8	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	1854	827	236	1885	15	233	82	280	391	219	0
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	337	3554	1585	444	3614	28	460	251	854	895	667	0
Grp Volume(v), veh/h	4	1251	89	76	750	788	33	0	0	21	0	0
Grp Sat Flow(s),veh/h/ln	337	1777	1585	444	1777	1865	1565	0	0	1562	0	0
Q Serve(g_s), s	0.6	15.6	1.7	9.1	21.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	21.6	15.6	1.7	24.7	21.0	21.0	0.8	0.0	0.0	0.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.36		0.55	0.62		0.00
Lane Grp Cap(c), veh/h	178	1854	827	236	927	973	596	0	0	610	0	0
V/C Ratio(X)	0.02	0.67	0.11	0.32	0.81	0.81	0.06	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	185	1925	859	245	962	1010	596	0	0	610	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.41	0.41	0.41	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.8	10.6	7.3	19.7	11.9	11.9	13.8	0.0	0.0	13.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.9	0.1	0.3	2.2	2.1	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.1	0.5	0.9	7.2	7.5	0.3	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	11.5	7.3	20.0	14.0	14.0	14.0	0.0	0.0	13.8	0.0	0.0
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1344			1614			33				21
Approach Delay, s/veh		11.3			14.3			14.0				13.8
Approach LOS		B			B			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.2		35.8		24.2		35.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		2.8		23.6		2.5		26.7				
Green Ext Time (p_c), s		0.1		5.7		0.0		4.6				
Intersection Summary												
HCM 6th Ctrl Delay				12.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	1533	21	13	1267	13	85	10	83	28	8	0
Future Volume (veh/h)	9	1533	21	13	1267	13	85	10	83	28	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1666	23	14	1377	14	92	11	90	30	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	1883	840	154	1910	19	292	58	229	450	122	0
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.32	0.32	0.32	0.32	0.32	0.00
Sat Flow, veh/h	389	3554	1585	298	3604	37	636	181	714	1074	381	0
Grp Volume(v), veh/h	10	1666	23	14	679	712	193	0	0	39	0	0
Grp Sat Flow(s),veh/h/ln	389	1777	1585	298	1777	1864	1532	0	0	1454	0	0
Q Serve(g_s), s	1.2	24.9	0.4	2.6	17.4	17.4	3.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.7	24.9	0.4	27.5	17.4	17.4	5.6	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.48		0.47	0.77		0.00
Lane Grp Cap(c), veh/h	213	1883	840	154	942	988	579	0	0	572	0	0
V/C Ratio(X)	0.05	0.88	0.03	0.09	0.72	0.72	0.33	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	217	1925	859	158	962	1010	579	0	0	572	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.47	0.47	0.47	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.8	12.5	6.7	24.7	10.7	10.7	15.7	0.0	0.0	14.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	5.3	0.0	0.1	1.2	1.2	1.5	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.1	0.1	0.2	5.8	6.0	2.1	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	17.7	6.7	24.8	12.0	11.9	17.3	0.0	0.0	14.4	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1699			1405			193				39
Approach Delay, s/veh		17.6			12.1			17.3				14.4
Approach LOS		B			B			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.7		36.3		23.7		36.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		7.6		26.9		2.9		29.5				
Green Ext Time (p_c), s		0.8		4.6		0.1		2.3				
Intersection Summary												
HCM 6th Ctrl Delay				15.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷	↷		↷	↷	↶	↷	↷
Traffic Volume (veh/h)	190	911	10	11	1102	119	5	2	17	147	5	356
Future Volume (veh/h)	190	911	10	11	1102	119	5	2	17	147	5	356
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	990	11	12	1198	129	5	2	18	160	5	387
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	1668	19	26	1244	555	239	85	343	188	696	590
Arrive On Green	0.13	0.46	0.46	0.01	0.35	0.35	0.22	0.22	0.22	0.11	0.37	0.37
Sat Flow, veh/h	1781	3600	40	1781	3554	1585	785	391	1585	1781	1870	1585
Grp Volume(v), veh/h	207	489	512	12	1198	129	7	0	18	160	5	387
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1585	1175	0	1585	1781	1870	1585
Q Serve(g_s), s	10.3	18.3	18.3	0.6	29.8	5.2	0.0	0.0	0.8	7.9	0.2	18.3
Cycle Q Clear(g_c), s	10.3	18.3	18.3	0.6	29.8	5.2	0.3	0.0	0.8	7.9	0.2	18.3
Prop In Lane	1.00		0.02	1.00		1.00	0.71		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	823	863	26	1244	555	323	0	343	188	696	590
V/C Ratio(X)	0.91	0.59	0.59	0.47	0.96	0.23	0.02	0.00	0.05	0.85	0.01	0.66
Avail Cap(c_a), veh/h	228	823	863	99	1244	555	323	0	343	188	696	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.46	0.46	0.46	1.00	0.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	38.7	17.9	17.9	44.0	28.7	20.7	27.7	0.0	27.9	39.6	17.8	23.5
Incr Delay (d2), s/veh	27.9	0.8	0.8	6.0	10.2	0.1	0.1	0.0	0.3	26.2	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	7.0	7.3	0.3	13.4	1.8	0.1	0.0	0.3	4.7	0.1	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.6	18.7	18.6	50.0	38.9	20.8	27.8	0.0	28.2	65.8	17.8	28.4
LnGrp LOS	E	B	B	D	D	C	C	A	C	E	B	C
Approach Vol, veh/h		1208			1339			25			552	
Approach Delay, s/veh		26.9			37.2			28.1			39.1	
Approach LOS		C			D			C			D	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	14.0	24.0	5.8	46.2		38.0	16.0	36.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	19.5	5.0	38.0		33.5	11.5	31.5				
Max Q Clear Time (g_c+I1), s	9.9	2.8	2.6	20.3		20.3	12.3	31.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.8		1.1	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				33.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘	↗		↗	↗	↗	↗	↗
Traffic Volume (veh/h)	183	1244	11	34	1024	148	16	8	27	122	5	187
Future Volume (veh/h)	183	1244	11	34	1024	148	16	8	27	122	5	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	199	1352	12	37	1113	161	17	9	29	133	5	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	233	1562	14	60	1191	531	269	129	383	164	718	608
Arrive On Green	0.13	0.43	0.43	0.03	0.34	0.34	0.24	0.24	0.24	0.09	0.38	0.38
Sat Flow, veh/h	1781	3609	32	1781	3554	1585	838	535	1585	1781	1870	1585
Grp Volume(v), veh/h	199	665	699	37	1113	161	26	0	29	133	5	203
Grp Sat Flow(s),veh/h/ln	1781	1777	1865	1781	1777	1585	1373	0	1585	1781	1870	1585
Q Serve(g_s), s	9.8	30.6	30.6	1.8	27.3	6.8	0.0	0.0	1.3	6.6	0.1	8.1
Cycle Q Clear(g_c), s	9.8	30.6	30.6	1.8	27.3	6.8	1.0	0.0	1.3	6.6	0.1	8.1
Prop In Lane	1.00		0.02	1.00		1.00	0.65		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	233	769	807	60	1191	531	398	0	383	164	718	608
V/C Ratio(X)	0.85	0.87	0.87	0.62	0.93	0.30	0.07	0.00	0.08	0.81	0.01	0.33
Avail Cap(c_a), veh/h	247	769	807	101	1204	537	398	0	383	168	718	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.37	0.37	0.37	0.68	0.68	0.68	1.00	0.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	38.3	23.2	23.2	42.9	29.0	22.1	26.2	0.0	26.4	40.1	17.1	19.6
Incr Delay (d2), s/veh	10.0	4.1	4.0	6.9	9.7	0.2	0.3	0.0	0.4	21.3	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	12.4	13.0	0.9	12.4	2.4	0.5	0.0	0.5	3.8	0.1	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	27.3	27.1	49.9	38.7	22.4	26.5	0.0	26.7	61.4	17.1	20.8
LnGrp LOS	D	C	C	D	D	C	C	A	C	E	B	C
Approach Vol, veh/h		1563			1311			55			341	
Approach Delay, s/veh		29.9			37.0			26.6			36.6	
Approach LOS		C			D			C			D	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	12.8	26.3	7.5	43.4		39.0	16.3	34.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	20.5	5.1	37.9		33.5	12.5	30.5				
Max Q Clear Time (g_c+I1), s	8.6	3.3	3.8	32.6		10.1	11.8	29.3				
Green Ext Time (p_c), s	0.0	0.1	0.0	3.6		0.6	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay				33.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑↑		↘	↑↑	
Traffic Volume (veh/h)	156	793	127	135	964	45	238	336	167	58	284	98
Future Volume (veh/h)	156	793	127	135	964	45	238	336	167	58	284	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	862	138	147	1048	49	259	365	182	63	309	107
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	1197	534	186	1146	511	696	771	378	297	869	295
Arrive On Green	0.12	0.34	0.34	0.10	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1882	2310	1133	860	2604	884
Grp Volume(v), veh/h	170	862	138	147	1048	49	259	279	268	63	209	207
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	941	1777	1666	860	1777	1711
Q Serve(g_s), s	5.6	12.7	3.8	4.8	17.0	1.3	7.3	7.5	7.6	3.8	5.3	5.5
Cycle Q Clear(g_c), s	5.6	12.7	3.8	4.8	17.0	1.3	12.8	7.5	7.6	11.4	5.3	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		0.52
Lane Grp Cap(c), veh/h	212	1197	534	186	1146	511	696	593	556	297	593	571
V/C Ratio(X)	0.80	0.72	0.26	0.79	0.91	0.10	0.37	0.47	0.48	0.21	0.35	0.36
Avail Cap(c_a), veh/h	223	1197	534	229	1155	515	696	593	556	297	593	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	17.4	14.5	26.2	19.5	14.2	20.0	15.8	15.9	20.4	15.1	15.1
Incr Delay (d2), s/veh	14.6	1.7	0.2	13.9	11.2	0.1	1.5	2.6	2.9	1.6	1.6	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.7	1.2	2.6	7.7	0.4	1.5	3.0	2.9	0.8	2.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	19.1	14.7	40.2	30.7	14.3	21.5	18.4	18.8	22.0	16.7	16.9
LnGrp LOS	D	B	B	D	C	B	C	B	B	C	B	B
Approach Vol, veh/h		1170			1244			806			479	
Approach Delay, s/veh		21.7			31.2			19.5			17.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.5	10.8	24.7		24.5	11.6	23.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	7.7	19.3		19.5	7.5	19.5				
Max Q Clear Time (g_c+I1), s		14.8	6.8	14.7		13.4	7.6	19.0				
Green Ext Time (p_c), s		2.0	0.0	2.4		1.4	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay				23.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 10: Claremont Blvd & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	1178	183	110	837	47	161	261	114	102	258	117
Future Volume (veh/h)	150	1178	183	110	837	47	161	261	114	102	258	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	1280	199	120	910	51	175	284	124	111	280	127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	1416	632	153	1315	586	627	748	318	320	738	326
Arrive On Green	0.11	0.40	0.40	0.09	0.37	0.37	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1898	2427	1034	978	2397	1059
Grp Volume(v), veh/h	163	1280	199	120	910	51	175	206	202	111	206	201
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	949	1777	1684	978	1777	1680
Q Serve(g_s), s	5.8	22.0	5.6	4.3	14.1	1.4	5.2	5.9	6.1	6.5	5.9	6.1
Cycle Q Clear(g_c), s	5.8	22.0	5.6	4.3	14.1	1.4	11.3	5.9	6.1	12.7	5.9	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.61	1.00		0.63
Lane Grp Cap(c), veh/h	204	1416	632	153	1315	586	627	547	519	320	547	517
V/C Ratio(X)	0.80	0.90	0.32	0.79	0.69	0.09	0.28	0.38	0.39	0.35	0.38	0.39
Avail Cap(c_a), veh/h	247	1449	646	178	1315	586	627	547	519	320	547	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.46	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	18.4	13.4	29.1	17.3	13.3	22.1	17.6	17.7	22.7	17.6	17.7
Incr Delay (d2), s/veh	7.1	4.1	0.1	17.8	1.6	0.1	1.1	1.9	2.2	3.0	2.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	8.3	1.7	2.4	5.2	0.4	1.1	2.4	2.4	1.6	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	22.5	13.6	46.9	18.9	13.4	23.2	19.5	19.8	25.6	19.6	19.9
LnGrp LOS	D	C	B	D	B	B	C	B	B	C	B	B
Approach Vol, veh/h		1642			1081			583			518	
Approach Delay, s/veh		22.7			21.8			20.7			21.0	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.5	10.1	30.4		24.5	11.9	28.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	6.5	26.5		18.5	9.0	24.0				
Max Q Clear Time (g_c+I1), s		13.3	6.3	24.0		14.7	7.8	16.1				
Green Ext Time (p_c), s		1.5	0.0	1.9		1.0	0.0	3.7				
Intersection Summary												
HCM 6th Ctrl Delay				21.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

























04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	625	274	108	805	165	255	605	123	107	500	73
Future Volume (veh/h)	113	625	274	108	805	165	255	605	123	107	500	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	119	658	288	114	847	174	268	637	129	113	526	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	1011	451	236	973	434	273	1048	467	235	1281	184
Arrive On Green	0.08	0.28	0.28	0.07	0.27	0.27	0.08	0.29	0.29	0.07	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4508	649
Grp Volume(v), veh/h	119	658	288	114	847	174	268	637	129	113	395	208
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1753
Q Serve(g_s), s	4.2	10.3	10.1	2.0	14.4	5.7	4.9	9.8	4.0	2.0	6.0	6.1
Cycle Q Clear(g_c), s	4.2	10.3	10.1	2.0	14.4	5.7	4.9	9.8	4.0	2.0	6.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	141	1011	451	236	973	434	273	1048	467	235	967	498
V/C Ratio(X)	0.85	0.65	0.64	0.48	0.87	0.40	0.98	0.61	0.28	0.48	0.41	0.42
Avail Cap(c_a), veh/h	141	1011	451	273	1010	450	273	1048	467	273	967	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	19.9	19.8	28.4	21.9	18.8	29.1	19.2	17.1	28.4	18.4	18.4
Incr Delay (d2), s/veh	35.4	1.5	3.0	1.5	8.1	0.6	49.5	2.6	1.5	1.5	1.3	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.9	3.6	0.8	6.3	1.9	3.7	3.8	1.5	0.8	2.2	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	21.4	22.8	30.0	30.1	19.4	78.6	21.8	18.6	30.0	19.6	21.0
LnGrp LOS	E	C	C	C	C	B	E	C	B	C	B	C
Approach Vol, veh/h		1065			1135			1034			716	
Approach Delay, s/veh		26.6			28.4			36.1			21.7	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	23.2	8.8	22.5	9.5	22.5	9.5	21.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.0	11.8	4.0	12.3	6.9	8.1	6.2	16.4				
Green Ext Time (p_c), s	0.0	2.3	0.0	2.5	0.0	2.5	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				28.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

04/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	1029	225	167	711	306	179	516	143	197	619	71
Future Volume (veh/h)	154	1029	225	167	711	306	179	516	143	197	619	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	162	1083	237	176	748	322	188	543	151	207	652	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	1000	446	267	997	445	270	1000	446	270	1309	149
Arrive On Green	0.08	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4649	530
Grp Volume(v), veh/h	162	1083	237	176	748	322	188	543	151	207	476	251
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1775
Q Serve(g_s), s	5.0	18.0	8.1	3.2	12.3	11.7	3.4	8.3	4.8	3.8	7.5	7.6
Cycle Q Clear(g_c), s	5.0	18.0	8.1	3.2	12.3	11.7	3.4	8.3	4.8	3.8	7.5	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	139	1000	446	267	997	445	270	1000	446	270	958	500
V/C Ratio(X)	1.16	1.08	0.53	0.66	0.75	0.72	0.70	0.54	0.34	0.77	0.50	0.50
Avail Cap(c_a), veh/h	139	1000	446	270	1000	446	270	1000	446	270	958	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	23.0	19.4	28.7	21.0	20.8	28.7	19.5	18.2	28.9	19.2	19.2
Incr Delay (d2), s/veh	126.7	53.5	1.2	5.7	3.2	5.7	7.5	2.1	2.0	12.4	1.8	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	14.0	2.8	1.4	4.9	4.5	1.6	3.2	1.8	1.9	2.8	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	156.2	76.5	20.6	34.4	24.1	26.5	36.3	21.6	20.3	41.3	21.0	22.8
LnGrp LOS	F	F	C	C	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1482			1246			882			934	
Approach Delay, s/veh		76.3			26.2			24.5			26.0	
Approach LOS		E			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.4	22.5	9.5	22.5	9.5	22.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.8	10.3	5.2	20.0	5.4	9.6	7.0	14.3				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.0	2.7	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay			42.2									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	575	255	168	893	0	389	0	137	0	0	1
Future Volume (vph)	4	575	255	168	893	0	389	0	137	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.99	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1603	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1603	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	605	268	177	940	0	409	0	144	0	0	1
RTOR Reduction (vph)	0	0	185	0	0	0	0	105	91	0	1	0
Lane Group Flow (vph)	4	605	83	177	940	0	213	105	39	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.8	18.8	18.8	5.1	23.1		18.2	18.2	18.2		0.9	
Effective Green, g (s)	0.8	18.8	18.8	5.1	23.1		18.2	18.2	18.2		0.9	
Actuated g/C Ratio	0.01	0.31	0.31	0.08	0.38		0.30	0.30	0.30		0.01	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	23	1090	487	287	1340		501	478	448		44	
v/s Ratio Prot	0.00	0.17		c0.05	c0.27		c0.13	0.07			c0.00	
v/s Ratio Perm			0.05						0.03			
v/c Ratio	0.17	0.56	0.17	0.62	0.70		0.43	0.22	0.09		0.00	
Uniform Delay, d1	29.8	17.6	15.4	27.0	16.0		17.2	16.1	15.4		29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.6	0.6	0.2	3.9	1.7		2.6	1.1	0.4		0.0	
Delay (s)	33.4	18.2	15.6	30.9	17.7		19.8	17.1	15.8		29.6	
Level of Service	C	B	B	C	B		B	B	B		C	
Approach Delay (s)		17.5			19.8			17.9			29.6	
Approach LOS		B			B			B			C	

Intersection Summary

HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	61.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1066	559	282	699	1	553	2	537	0	2	0
Future Volume (vph)	4	1066	559	282	699	1	553	2	537	0	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.92	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3538		1681	1525	1504		3539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3538		1681	1525	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	1122	588	297	736	1	582	2	565	0	2	0
RTOR Reduction (vph)	0	0	247	0	0	0	0	49	260	0	0	0
Lane Group Flow (vph)	4	1122	341	297	737	0	402	336	102	0	2	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2			6	
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	431	425		55	
v/s Ratio Prot	0.00	c0.32		c0.09	c0.21		c0.24	0.22			c0.00	
v/s Ratio Perm			0.22						0.07			
v/c Ratio	0.17	0.93	0.63	1.11	0.51		0.85	0.78	0.24		0.04	
Uniform Delay, d1	31.2	20.3	17.7	29.5	14.3		21.6	21.1	17.7		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.3	12.0	2.3	87.1	0.3		16.8	13.1	1.3		0.3	
Delay (s)	34.5	32.3	19.9	116.6	14.6		38.4	34.2	19.0		31.3	
Level of Service	C	C	B	F	B		D	C	B		C	
Approach Delay (s)		28.0			43.9			30.9			31.3	
Approach LOS		C			D			C			C	

Intersection Summary

HCM 2000 Control Delay	33.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th TWSC
13: 6th St & Indian Hill Blvd

04/05/2024

Intersection												
Int Delay, s/veh	54.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	21	60	72	5	31	4	714	91	50	782	2
Future Vol, veh/h	0	21	60	72	5	31	4	714	91	50	782	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	65	78	5	34	4	776	99	54	850	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1812	1842	851	1837	1794	826	852	0	0	875	0	0
Stage 1	959	959	-	834	834	-	-	-	-	-	-	-
Stage 2	853	883	-	1003	960	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	61	75	360	~ 58	80	372	787	-	-	771	-	-
Stage 1	309	335	-	362	383	-	-	-	-	-	-	-
Stage 2	354	364	-	292	335	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	49	69	360	~ 33	74	372	787	-	-	771	-	-
Mov Cap-2 Maneuver	49	69	-	~ 33	74	-	-	-	-	-	-	-
Stage 1	307	312	-	360	381	-	-	-	-	-	-	-
Stage 2	316	362	-	206	312	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	46	\$ 892.7	0	0.6
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	787	-	-	172	46	771	-
HCM Lane V/C Ratio	0.006	-	-	0.512	2.552	0.07	-
HCM Control Delay (s)	9.6	-	-	46	892.7	10	-
HCM Lane LOS	A	-	-	E	F	B	-
HCM 95th %tile Q(veh)	0	-	-	2.5	12.5	0.2	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
13: 6th St & Indian Hill Blvd

04/05/2024

Intersection												
Int Delay, s/veh	77.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	4	7	5	83	12	115	7	737	71	91	653	1
Future Vol, veh/h	4	7	5	83	12	115	7	737	71	91	653	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	8	5	90	13	125	8	801	77	99	710	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1834	1803	711	1771	1765	840	711	0	0	878	0	0
Stage 1	909	909	-	856	856	-	-	-	-	-	-	-
Stage 2	925	894	-	915	909	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	59	79	433	~ 65	84	365	888	-	-	769	-	-
Stage 1	329	354	-	352	374	-	-	-	-	-	-	-
Stage 2	323	360	-	327	354	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	30	68	433	~ 53	72	365	888	-	-	769	-	-
Mov Cap-2 Maneuver	30	68	-	~ 53	72	-	-	-	-	-	-	-
Stage 1	326	308	-	349	371	-	-	-	-	-	-	-
Stage 2	203	357	-	274	308	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	79.5		\$ 644.8		0.1		1.3	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	65	103	769	-
HCM Lane V/C Ratio	0.009	-	-	0.268	2.216	0.129	-
HCM Control Delay (s)	9.1	-	-	79.5	\$ 644.8	10.4	-
HCM Lane LOS	A	-	-	F	F	B	-
HCM 95th %tile Q(veh)	0	-	-	0.9	19.9	0.4	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	59	212	30	46	132	18	67	217	80	20	159	36
Future Vol, veh/h	59	212	30	46	132	18	67	217	80	20	159	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	230	33	50	143	20	73	236	87	22	173	39
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	18.3	14.3	21.4	14.4
HCM LOS	C	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	20%	23%	9%
Vol Thru, %	60%	70%	67%	74%
Vol Right, %	22%	10%	9%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	364	301	196	215
LT Vol	67	59	46	20
Through Vol	217	212	132	159
RT Vol	80	30	18	36
Lane Flow Rate	396	327	213	234
Geometry Grp	1	1	1	1
Degree of Util (X)	0.679	0.586	0.399	0.425
Departure Headway (Hd)	6.174	6.444	6.744	6.552
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	582	556	530	547
Service Time	4.239	4.513	4.823	4.629
HCM Lane V/C Ratio	0.68	0.588	0.402	0.428
HCM Control Delay	21.4	18.3	14.3	14.4
HCM Lane LOS	C	C	B	B
HCM 95th-tile Q	5.2	3.8	1.9	2.1

Intersection	
Intersection Delay, s/veh	42.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	208	57	99	274	23	72	155	74	21	222	59
Future Vol, veh/h	40	208	57	99	274	23	72	155	74	21	222	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	226	62	108	298	25	78	168	80	23	241	64
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	34.1	62.2	33.8	33.9
HCM LOS	D	F	D	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	13%	25%	7%
Vol Thru, %	51%	68%	69%	74%
Vol Right, %	25%	19%	6%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	301	305	396	302
LT Vol	72	40	99	21
Through Vol	155	208	274	222
RT Vol	74	57	23	59
Lane Flow Rate	327	332	430	328
Geometry Grp	1	1	1	1
Degree of Util (X)	0.761	0.766	0.961	0.763
Departure Headway (Hd)	8.373	8.321	8.037	8.365
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	432	434	452	430
Service Time	6.456	6.406	6.11	6.448
HCM Lane V/C Ratio	0.757	0.765	0.951	0.763
HCM Control Delay	33.8	34.1	62.2	33.9
HCM Lane LOS	D	D	F	D
HCM 95th-tile Q	6.4	6.5	11.6	6.4

Intersection

Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	238	12	13	256	0	13	0	8	1	1	1
Future Vol, veh/h	2	238	12	13	256	0	13	0	8	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	259	13	14	278	0	14	0	9	1	1	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	9.5	8.2	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	62%	1%	5%	33%
Vol Thru, %	0%	94%	95%	33%
Vol Right, %	38%	5%	0%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	252	269	3
LT Vol	13	2	13	1
Through Vol	0	238	256	1
RT Vol	8	12	0	1
Lane Flow Rate	23	274	292	3
Geometry Grp	1	1	1	1
Degree of Util (X)	0.032	0.317	0.341	0.005
Departure Headway (Hd)	5.048	4.171	4.194	5.051
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	713	846	845	712
Service Time	3.05	2.269	2.285	3.054
HCM Lane V/C Ratio	0.032	0.324	0.346	0.004
HCM Control Delay	8.2	9.2	9.5	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.4	1.5	0

Intersection

Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	372	29	22	359	7	16	2	13	4	2	3
Future Vol, veh/h	2	372	29	22	359	7	16	2	13	4	2	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	404	32	24	390	8	17	2	14	4	2	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.7	12.5	9	8.9
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	0%	6%	44%
Vol Thru, %	6%	92%	93%	22%
Vol Right, %	42%	7%	2%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	403	388	9
LT Vol	16	2	22	4
Through Vol	2	372	359	2
RT Vol	13	29	7	3
Lane Flow Rate	34	438	422	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.053	0.542	0.528	0.016
Departure Headway (Hd)	5.643	4.453	4.507	5.734
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	631	810	801	620
Service Time	3.708	2.482	2.537	3.805
HCM Lane V/C Ratio	0.054	0.541	0.527	0.016
HCM Control Delay	9	12.7	12.5	8.9
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.2	3.3	3.1	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	309	20	270	221	124	37	617	139	46	423	44
Future Volume (veh/h)	81	309	20	270	221	124	37	617	139	46	423	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	325	21	284	233	131	39	649	146	48	445	46
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	383	25	361	379	321	316	769	173	221	885	91
Arrive On Green	0.22	0.22	0.22	0.20	0.20	0.20	0.04	0.27	0.27	0.04	0.27	0.27
Sat Flow, veh/h	1781	1738	112	1781	1870	1585	1781	2883	648	1781	3252	335
Grp Volume(v), veh/h	85	0	346	284	233	131	39	400	395	48	242	249
Grp Sat Flow(s),veh/h/ln	1781	0	1850	1781	1870	1585	1781	1777	1754	1781	1777	1810
Q Serve(g_s), s	2.6	0.0	12.1	10.2	7.7	4.9	1.1	14.4	14.4	1.3	7.8	7.8
Cycle Q Clear(g_c), s	2.6	0.0	12.1	10.2	7.7	4.9	1.1	14.4	14.4	1.3	7.8	7.8
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.37	1.00		0.18
Lane Grp Cap(c), veh/h	393	0	408	361	379	321	316	474	468	221	484	493
V/C Ratio(X)	0.22	0.00	0.85	0.79	0.62	0.41	0.12	0.84	0.85	0.22	0.50	0.50
Avail Cap(c_a), veh/h	475	0	493	475	499	423	380	474	468	275	484	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	25.2	25.5	24.5	23.4	17.1	23.4	23.4	18.1	20.7	20.7
Incr Delay (d2), s/veh	0.3	0.0	11.3	6.4	1.6	0.8	0.2	16.6	16.9	0.5	3.7	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	6.0	4.7	3.4	1.8	0.4	7.6	7.5	0.5	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	0.0	36.5	32.0	26.2	24.2	17.3	40.0	40.4	18.6	24.4	24.4
LnGrp LOS	C	A	D	C	C	C	B	D	D	B	C	C
Approach Vol, veh/h		431			648			834			539	
Approach Delay, s/veh		33.6			28.3			39.1			23.9	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	22.5		19.4	7.1	22.9		18.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	3.3	16.4		14.1	3.1	9.8		12.2				
Green Ext Time (p_c), s	0.0	0.8		0.8	0.0	1.7		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				32.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷	↷	↶	↷		↶	↷	
Traffic Volume (veh/h)	58	317	28	317	385	50	32	388	306	131	460	81
Future Volume (veh/h)	58	317	28	317	385	50	32	388	306	131	460	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	334	29	334	405	53	34	408	322	138	484	85
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	376	33	423	444	376	264	450	352	231	816	142
Arrive On Green	0.22	0.22	0.22	0.24	0.24	0.24	0.03	0.24	0.24	0.07	0.27	0.27
Sat Flow, veh/h	1781	1697	147	1781	1870	1585	1781	1896	1484	1781	3024	528
Grp Volume(v), veh/h	61	0	363	334	405	53	34	382	348	138	283	286
Grp Sat Flow(s),veh/h/ln	1781	0	1844	1781	1870	1585	1781	1777	1603	1781	1777	1775
Q Serve(g_s), s	2.1	0.0	14.5	13.3	16.0	2.0	1.1	15.8	16.0	4.4	10.5	10.6
Cycle Q Clear(g_c), s	2.1	0.0	14.5	13.3	16.0	2.0	1.1	15.8	16.0	4.4	10.5	10.6
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.93	1.00		0.30
Lane Grp Cap(c), veh/h	395	0	409	423	444	376	264	422	381	231	479	479
V/C Ratio(X)	0.15	0.00	0.89	0.79	0.91	0.14	0.13	0.91	0.91	0.60	0.59	0.60
Avail Cap(c_a), veh/h	423	0	438	423	444	376	322	422	381	231	479	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	28.6	27.1	28.1	22.8	21.0	28.1	28.1	21.9	24.0	24.1
Incr Delay (d2), s/veh	0.2	0.0	18.6	9.7	23.0	0.2	0.2	25.5	28.8	4.1	5.3	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	7.9	6.6	9.7	0.7	0.4	9.2	8.7	2.0	4.8	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	0.0	47.2	36.9	51.1	23.0	21.2	53.6	56.9	26.0	29.3	29.5
LnGrp LOS	C	A	D	D	D	C	C	D	E	C	C	C
Approach Vol, veh/h		424			792			764			707	
Approach Delay, s/veh		43.9			43.2			53.7			28.8	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5		21.3	7.1	24.9		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	6.4	18.0		16.5	3.1	12.6		18.0				
Green Ext Time (p_c), s	0.0	0.0		0.4	0.0	1.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			42.5									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↖↗↘		↗	↗↘	
Traffic Volume (veh/h)	121	319	50	197	409	118	50	698	72	33	821	72
Future Volume (veh/h)	121	319	50	197	409	118	50	698	72	33	821	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	336	53	207	431	124	53	735	76	35	864	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	821	128	149	499	423	169	1470	151	66	1436	126
Arrive On Green	0.08	0.27	0.27	0.08	0.27	0.27	0.05	0.31	0.31	0.04	0.30	0.30
Sat Flow, veh/h	1781	3080	481	1781	1870	1585	3456	4704	483	1781	4780	419
Grp Volume(v), veh/h	127	192	197	207	431	124	53	530	281	35	614	326
Grp Sat Flow(s),veh/h/ln	1781	1777	1784	1781	1870	1585	1728	1702	1783	1781	1702	1795
Q Serve(g_s), s	4.2	5.3	5.4	5.0	13.2	3.7	0.9	7.6	7.7	1.2	9.2	9.3
Cycle Q Clear(g_c), s	4.2	5.3	5.4	5.0	13.2	3.7	0.9	7.6	7.7	1.2	9.2	9.3
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.27	1.00		0.23
Lane Grp Cap(c), veh/h	149	474	476	149	499	423	169	1064	557	66	1023	539
V/C Ratio(X)	0.85	0.41	0.41	1.39	0.86	0.29	0.31	0.50	0.50	0.53	0.60	0.60
Avail Cap(c_a), veh/h	149	534	536	149	562	476	288	1064	557	149	1023	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	18.1	18.1	27.5	20.9	17.5	27.5	16.8	16.8	28.3	17.9	17.9
Incr Delay (d2), s/veh	35.5	0.6	0.6	212.2	12.2	0.4	1.0	1.7	3.2	6.6	2.6	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.9	2.0	10.7	6.5	1.2	0.4	2.7	3.1	0.6	3.4	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	18.6	18.7	239.7	33.1	17.9	28.6	18.4	20.0	34.9	20.5	22.8
LnGrp LOS	E	B	B	F	C	B	C	B	C	C	C	C
Approach Vol, veh/h		516			762			864			975	
Approach Delay, s/veh		29.5			86.7			19.6			21.8	
Approach LOS		C			F			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	23.2	9.5	20.5	7.4	22.5	9.5	20.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.2	9.7	7.0	7.4	2.9	11.3	6.2	15.2				
Green Ext Time (p_c), s	0.0	3.0	0.0	1.5	0.0	3.0	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				38.3								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

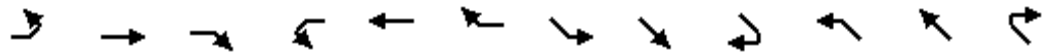
04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖↗	↖↗		↖	↗	↖↗
Traffic Volume (veh/h)	96	573	48	119	449	69	85	640	210	103	733	170
Future Volume (veh/h)	96	573	48	119	449	69	85	640	210	103	733	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	603	51	125	473	73	89	674	221	108	772	179
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	903	76	141	522	442	216	1091	352	138	1246	286
Arrive On Green	0.07	0.27	0.27	0.08	0.28	0.28	0.06	0.29	0.29	0.08	0.30	0.30
Sat Flow, veh/h	1781	3317	280	1781	1870	1585	3456	3820	1233	1781	4149	953
Grp Volume(v), veh/h	101	323	331	125	473	73	89	599	296	108	632	319
Grp Sat Flow(s),veh/h/ln	1781	1777	1820	1781	1870	1585	1728	1702	1648	1781	1702	1699
Q Serve(g_s), s	3.5	10.2	10.2	4.4	15.4	2.2	1.6	9.6	9.8	3.8	10.1	10.2
Cycle Q Clear(g_c), s	3.5	10.2	10.2	4.4	15.4	2.2	1.6	9.6	9.8	3.8	10.1	10.2
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.75	1.00		0.56
Lane Grp Cap(c), veh/h	129	484	495	141	522	442	216	972	471	138	1022	510
V/C Ratio(X)	0.78	0.67	0.67	0.88	0.91	0.17	0.41	0.62	0.63	0.78	0.62	0.63
Avail Cap(c_a), veh/h	141	507	520	141	534	453	274	972	471	141	1022	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	20.4	20.4	28.7	21.9	17.2	28.4	19.5	19.6	28.6	18.9	19.0
Incr Delay (d2), s/veh	22.4	3.1	3.1	43.6	18.9	0.2	1.2	2.9	6.2	23.8	2.8	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.0	4.1	3.4	8.5	0.7	0.6	3.7	4.0	2.4	3.8	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	23.5	23.5	72.3	40.9	17.4	29.7	22.5	25.8	52.4	21.8	24.7
LnGrp LOS	D	C	C	E	D	B	C	C	C	D	C	C
Approach Vol, veh/h		755			671			984			1059	
Approach Delay, s/veh		27.2			44.2			24.1			25.8	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	22.5	9.5	21.7	8.4	23.4	9.1	22.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.8	11.8	6.4	12.2	3.6	12.2	5.5	17.4				
Green Ext Time (p_c), s	0.0	2.8	0.0	1.8	0.0	2.8	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay				29.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

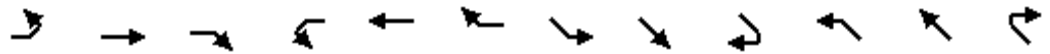
04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	59	54	47	20	54	27	45	813	68	36	679	21
Future Volume (veh/h)	59	54	47	20	54	27	45	813	68	36	679	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	59	51	22	59	29	49	884	74	39	738	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	49	410	65	135	410	78	955	809	68	910	28
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.04	0.51	0.51	0.04	0.50	0.50
Sat Flow, veh/h	0	190	1585	0	523	1585	1781	1870	1585	1781	1804	56
Grp Volume(v), veh/h	123	0	51	81	0	29	49	884	74	39	0	761
Grp Sat Flow(s),veh/h/ln	190	0	1585	523	0	1585	1781	1870	1585	1781	0	1860
Q Serve(g_s), s	0.0	0.0	1.7	0.0	0.0	1.0	1.9	30.7	1.7	1.5	0.0	24.0
Cycle Q Clear(g_c), s	18.1	0.0	1.7	18.1	0.0	1.0	1.9	30.7	1.7	1.5	0.0	24.0
Prop In Lane	0.52		1.00	0.27		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	127	0	410	201	0	410	78	955	809	68	0	939
V/C Ratio(X)	0.97	0.00	0.12	0.40	0.00	0.07	0.63	0.93	0.09	0.58	0.00	0.81
Avail Cap(c_a), veh/h	127	0	410	201	0	410	130	955	809	127	0	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.1	0.0	19.9	21.3	0.0	19.6	32.9	15.9	8.8	33.1	0.0	14.5
Incr Delay (d2), s/veh	68.9	0.0	0.1	1.3	0.0	0.1	8.0	15.9	0.2	7.5	0.0	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	0.6	1.1	0.0	0.4	1.0	15.7	0.6	0.8	0.0	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.0	0.0	20.0	22.6	0.0	19.7	40.9	31.8	9.0	40.7	0.0	22.1
LnGrp LOS	F	A	C	C	A	B	D	C	A	D	A	C
Approach Vol, veh/h		174			110			1007				800
Approach Delay, s/veh		74.4			21.9			30.6				23.0
Approach LOS		E			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	39.8		22.6	7.2	40.2		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	33.3		18.1	5.0	33.4		18.1				
Max Q Clear Time (g_c+I1), s	3.9	26.0		20.1	3.5	32.7		20.1				
Green Ext Time (p_c), s	0.0	3.2		0.0	0.0	0.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			30.9									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	48	40	49	46	37	91	26	666	42	19	712	21
Future Volume (veh/h)	48	40	49	46	37	91	26	666	42	19	712	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	43	53	50	40	99	28	724	46	21	774	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	44	408	80	43	408	53	984	834	43	940	28
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.03	0.53	0.53	0.02	0.52	0.52
Sat Flow, veh/h	0	172	1585	0	166	1585	1781	1870	1585	1781	1807	54
Grp Volume(v), veh/h	95	0	53	90	0	99	28	724	46	21	0	797
Grp Sat Flow(s),veh/h/ln	172	0	1585	166	0	1585	1781	1870	1585	1781	0	1861
Q Serve(g_s), s	0.0	0.0	1.8	0.0	0.0	3.5	1.1	21.0	1.0	0.8	0.0	25.2
Cycle Q Clear(g_c), s	18.0	0.0	1.8	18.0	0.0	3.5	1.1	21.0	1.0	0.8	0.0	25.2
Prop In Lane	0.55		1.00	0.56		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	124	0	408	123	0	408	53	984	834	43	0	968
V/C Ratio(X)	0.77	0.00	0.13	0.73	0.00	0.24	0.52	0.74	0.06	0.49	0.00	0.82
Avail Cap(c_a), veh/h	124	0	408	123	0	408	130	984	834	127	0	968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.0	0.0	20.0	26.8	0.0	20.6	33.5	12.8	8.1	33.7	0.0	14.1
Incr Delay (d2), s/veh	24.7	0.0	0.1	20.1	0.0	0.3	7.7	4.9	0.1	8.5	0.0	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.7	2.2	0.0	1.3	0.6	9.1	0.3	0.4	0.0	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	0.0	20.1	46.9	0.0	20.9	41.2	17.7	8.2	42.3	0.0	22.0
LnGrp LOS	D	A	C	D	A	C	D	B	A	D	A	C
Approach Vol, veh/h		148			189			798				818
Approach Delay, s/veh		40.4			33.3			18.0				22.5
Approach LOS		D			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	40.9		22.5	6.2	41.3		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	33.4		18.0	5.0	33.5		18.0				
Max Q Clear Time (g_c+I1), s	3.1	27.2		20.0	2.8	23.0		20.0				
Green Ext Time (p_c), s	0.0	3.0		0.0	0.0	4.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	27	37	128	60	166	58	762	213	92	650	27
Future Volume (veh/h)	9	27	37	128	60	166	58	762	213	92	650	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	29	40	139	65	180	63	828	232	100	707	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	363	307	361	85	235	373	960	814	308	940	39
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.05	0.51	0.51	0.07	0.53	0.53
Sat Flow, veh/h	1135	1870	1585	1332	438	1214	1781	1870	1585	1781	1784	73
Grp Volume(v), veh/h	10	29	40	139	0	245	63	828	232	100	0	736
Grp Sat Flow(s),veh/h/ln	1135	1870	1585	1332	0	1652	1781	1870	1585	1781	0	1857
Q Serve(g_s), s	0.5	0.8	1.3	5.7	0.0	8.4	1.0	23.2	5.0	1.5	0.0	18.6
Cycle Q Clear(g_c), s	8.9	0.8	1.3	6.5	0.0	8.4	1.0	23.2	5.0	1.5	0.0	18.6
Prop In Lane	1.00		1.00	1.00		0.73	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	181	363	307	361	0	320	373	960	814	308	0	978
V/C Ratio(X)	0.06	0.08	0.13	0.38	0.00	0.76	0.17	0.86	0.29	0.32	0.00	0.75
Avail Cap(c_a), veh/h	301	561	476	503	0	496	427	960	814	336	0	978
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.81	0.81	0.81	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	19.8	20.0	22.5	0.0	22.9	8.7	12.7	8.3	11.1	0.0	11.1
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.7	0.0	3.8	0.2	8.4	0.7	0.6	0.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	0.5	1.8	0.0	3.4	0.3	10.0	1.6	0.5	0.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	19.9	20.2	23.1	0.0	26.7	8.9	21.1	9.0	11.7	0.0	16.5
LnGrp LOS	C	B	C	C	A	C	A	C	A	B	A	B
Approach Vol, veh/h		79			384			1123				836
Approach Delay, s/veh		21.0			25.4			17.9				15.9
Approach LOS		C			C			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	35.3		16.1	7.8	36.1		16.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	3.5	25.2		10.9	3.0	20.6		10.4				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	1.4		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				18.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	85	88	133	78	171	103	599	210	140	663	86
Future Volume (veh/h)	29	85	88	133	78	171	103	599	210	140	663	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	92	96	145	85	186	112	651	228	152	721	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	405	343	321	113	247	308	942	799	390	826	107
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.07	0.50	0.50	0.07	0.51	0.51
Sat Flow, veh/h	1108	1870	1585	1195	522	1143	1781	1870	1585	1781	1623	209
Grp Volume(v), veh/h	32	92	96	145	0	271	112	651	228	152	0	814
Grp Sat Flow(s),veh/h/ln	1108	1870	1585	1195	0	1665	1781	1870	1585	1781	0	1833
Q Serve(g_s), s	1.8	2.6	3.3	7.4	0.0	9.9	1.9	17.2	5.4	2.6	0.0	25.5
Cycle Q Clear(g_c), s	11.7	2.6	3.3	10.0	0.0	9.9	1.9	17.2	5.4	2.6	0.0	25.5
Prop In Lane	1.00		1.00	1.00		0.69	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	182	405	343	321	0	360	308	942	799	390	0	933
V/C Ratio(X)	0.18	0.23	0.28	0.45	0.00	0.75	0.36	0.69	0.29	0.39	0.00	0.87
Avail Cap(c_a), veh/h	257	532	451	403	0	474	329	942	799	401	0	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.91	0.91	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.3	21.0	21.2	25.1	0.0	23.8	12.2	12.3	9.3	9.4	0.0	14.1
Incr Delay (d2), s/veh	0.5	0.3	0.4	1.0	0.0	4.8	0.7	3.8	0.8	0.6	0.0	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.1	1.2	2.1	0.0	4.2	0.6	7.0	1.8	0.9	0.0	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	21.3	21.7	26.1	0.0	28.6	12.9	16.1	10.2	10.0	0.0	25.2
LnGrp LOS	C	C	C	C	A	C	B	B	B	B	A	C
Approach Vol, veh/h		220			416			991			966	
Approach Delay, s/veh		22.7			27.7			14.3			22.8	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	37.2		18.6	8.8	37.6		18.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	27.9		18.5	5.1	27.9		18.5				
Max Q Clear Time (g_c+I1), s	4.6	19.2		13.7	3.9	27.5		12.0				
Green Ext Time (p_c), s	0.0	3.4		0.4	0.0	0.2		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				20.3								
HCM 6th LOS				C								

Intersection	
Intersection Delay, s/veh	20.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	55	184	48	45	298	137	30	235	28	42	168	18
Future Vol, veh/h	55	184	48	45	298	137	30	235	28	42	168	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	200	52	49	324	149	33	255	30	46	183	20
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	15.2	20.3	25.7	20.2
HCM LOS	C	C	D	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	10%	100%	0%	0%	100%	0%	0%	18%
Vol Thru, %	80%	0%	100%	0%	0%	100%	0%	74%
Vol Right, %	10%	0%	0%	100%	0%	0%	100%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	293	55	184	48	45	298	137	228
LT Vol	30	55	0	0	45	0	0	42
Through Vol	235	0	184	0	0	298	0	168
RT Vol	28	0	0	48	0	0	137	18
Lane Flow Rate	318	60	200	52	49	324	149	248
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.683	0.142	0.442	0.105	0.11	0.681	0.283	0.549
Departure Headway (Hd)	7.721	8.578	7.956	7.225	8.089	7.57	6.842	7.977
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	465	421	450	493	441	476	521	449
Service Time	5.51	6.278	5.755	5.024	5.881	5.361	4.633	5.774
HCM Lane V/C Ratio	0.684	0.143	0.444	0.105	0.111	0.681	0.286	0.552
HCM Control Delay	25.7	12.7	17	10.9	11.9	25.2	12.3	20.2
HCM Lane LOS	D	B	C	B	B	D	B	C
HCM 95th-tile Q	5.1	0.5	2.2	0.3	0.4	5	1.2	3.2

Intersection	
Intersection Delay, s/veh	80.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	49	336	76	71	269	91	45	139	88	116	313	57
Future Vol, veh/h	49	336	76	71	269	91	45	139	88	116	313	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	365	83	77	292	99	49	151	96	126	340	62
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	45.5	28.2	36.3	184.9
HCM LOS	E	D	E	F

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	17%	100%	0%	0%	100%	0%	0%	24%
Vol Thru, %	51%	0%	100%	0%	0%	100%	0%	64%
Vol Right, %	32%	0%	0%	100%	0%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	272	49	336	76	71	269	91	486
LT Vol	45	49	0	0	71	0	0	116
Through Vol	139	0	336	0	0	269	0	313
RT Vol	88	0	0	76	0	0	91	57
Lane Flow Rate	296	53	365	83	77	292	99	528
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.741	0.139	0.899	0.187	0.204	0.733	0.229	1.316
Departure Headway (Hd)	9.943	10.42	9.885	9.136	10.632	10.096	9.345	8.971
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	367	346	369	396	340	360	387	407
Service Time	7.643	8.12	7.585	6.836	8.332	7.796	7.045	6.745
HCM Lane V/C Ratio	0.807	0.153	0.989	0.21	0.226	0.811	0.256	1.297
HCM Control Delay	36.3	14.8	57.1	13.9	16	36	14.8	184.9
HCM Lane LOS	E	B	F	B	C	E	B	F
HCM 95th-tile Q	5.8	0.5	9	0.7	0.8	5.6	0.9	23.9

HCM 6th Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	0	126	8	0	1	399	711	7	1	452	126
Future Volume (veh/h)	65	0	126	8	0	1	399	711	7	1	452	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	0	137	9	0	1	434	773	8	1	491	137
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	201	171	22	0	19	634	2685	28	539	2648	1181
Arrive On Green	0.11	0.00	0.11	0.01	0.00	0.01	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	798	3603	37	692	3554	1585
Grp Volume(v), veh/h	71	0	137	9	0	1	434	381	400	1	491	137
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	798	1777	1864	692	1777	1585
Q Serve(g_s), s	3.7	0.0	8.4	0.5	0.0	0.1	35.3	7.0	7.0	0.0	4.1	2.4
Cycle Q Clear(g_c), s	3.7	0.0	8.4	0.5	0.0	0.1	39.4	7.0	7.0	7.0	4.1	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	192	201	171	22	0	19	634	1324	1389	539	2648	1181
V/C Ratio(X)	0.37	0.00	0.80	0.42	0.00	0.05	0.68	0.29	0.29	0.00	0.19	0.12
Avail Cap(c_a), veh/h	321	337	285	321	0	285	634	1324	1389	539	2648	1181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	41.5	0.0	43.6	49.0	0.0	48.8	9.6	4.1	4.1	5.3	3.8	3.6
Incr Delay (d2), s/veh	1.2	0.0	8.5	12.3	0.0	1.1	5.9	0.5	0.5	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.7	0.3	0.0	0.0	5.7	2.0	2.1	0.0	1.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	0.0	52.0	61.3	0.0	49.9	15.5	4.7	4.7	5.3	3.9	3.7
LnGrp LOS	D	A	D	E	A	D	B	A	A	A	A	A
Approach Vol, veh/h		208			10			1215			629	
Approach Delay, s/veh		48.8			60.2			8.5			3.8	
Approach LOS		D			E			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		79.0		15.3		79.0		5.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		50.5		18.0		50.5		18.0				
Max Q Clear Time (g_c+I1), s		41.4		10.4		9.0		2.5				
Green Ext Time (p_c), s		4.9		0.4		3.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				11.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	5	314	4	0	1	147	420	7	2	569	220
Future Volume (veh/h)	251	5	314	4	0	1	147	420	7	2	569	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	273	5	341	4	0	1	160	457	8	2	618	239
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	431	453	384	12	0	10	403	1996	35	561	1985	885
Arrive On Green	0.24	0.24	0.24	0.01	0.00	0.01	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	644	3573	63	928	3554	1585
Grp Volume(v), veh/h	273	5	341	4	0	1	160	227	238	2	618	239
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	644	1777	1859	928	1777	1585
Q Serve(g_s), s	9.6	0.1	14.5	0.2	0.0	0.0	12.4	4.5	4.5	0.1	6.5	5.5
Cycle Q Clear(g_c), s	9.6	0.1	14.5	0.2	0.0	0.0	18.9	4.5	4.5	4.6	6.5	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	431	453	384	12	0	10	403	992	1038	561	1985	885
V/C Ratio(X)	0.63	0.01	0.89	0.34	0.00	0.10	0.40	0.23	0.23	0.00	0.31	0.27
Avail Cap(c_a), veh/h	458	481	408	458	0	408	403	992	1038	561	1985	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	23.8	20.2	25.6	34.6	0.0	34.6	13.3	7.8	7.8	9.0	8.3	8.0
Incr Delay (d2), s/veh	2.6	0.0	20.0	16.1	0.0	3.9	2.9	0.5	0.5	0.0	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.1	7.3	0.1	0.0	0.0	1.8	1.5	1.6	0.0	2.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	20.2	45.6	50.7	0.0	38.4	16.2	8.4	8.3	9.0	8.5	8.6
LnGrp LOS	C	C	D	D	A	D	B	A	A	A	A	A
Approach Vol, veh/h		619			5			625			859	
Approach Delay, s/veh		36.9			48.2			10.4			8.5	
Approach LOS		D			D			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.6		21.4		43.6		5.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		18.0		20.5		18.0				
Max Q Clear Time (g_c+I1), s		20.9		16.5		8.5		2.2				
Green Ext Time (p_c), s		0.0		0.4		3.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 22: Indian Hill Blvd & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	186	567	229	159	928	140	223	717	162	166	725	155
Future Volume (veh/h)	186	567	229	159	928	140	223	717	162	166	725	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	616	249	173	1009	152	242	779	176	180	788	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	1421	634	335	1421	634	264	1421	634	296	1166	249
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	484	3554	1585	640	3554	1585	587	3554	1585	588	2914	621
Grp Volume(v), veh/h	202	616	249	173	1009	152	242	779	176	180	480	476
Grp Sat Flow(s),veh/h/ln	484	1777	1585	640	1777	1585	587	1777	1585	588	1777	1759
Q Serve(g_s), s	7.3	5.7	5.0	12.1	10.7	2.9	8.0	7.6	3.4	10.4	10.0	10.0
Cycle Q Clear(g_c), s	18.0	5.7	5.0	17.8	10.7	2.9	18.0	7.6	3.4	18.0	10.0	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	238	1421	634	335	1421	634	264	1421	634	296	711	703
V/C Ratio(X)	0.85	0.43	0.39	0.52	0.71	0.24	0.92	0.55	0.28	0.61	0.68	0.68
Avail Cap(c_a), veh/h	238	1421	634	335	1421	634	264	1421	634	296	711	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.65	0.65	0.65	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	21.1	9.8	9.6	16.2	11.3	9.0	20.8	10.4	9.1	18.6	11.1	11.1
Incr Delay (d2), s/veh	23.7	0.2	0.4	0.9	1.1	0.1	37.3	1.5	1.1	6.3	3.6	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	1.8	1.4	1.5	3.5	0.8	5.1	2.6	1.1	2.2	3.6	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	10.0	10.0	17.1	12.4	9.1	58.1	11.9	10.2	24.8	14.7	14.7
LnGrp LOS	D	B	B	B	B	A	E	B	B	C	B	B
Approach Vol, veh/h		1067			1334			1197			1136	
Approach Delay, s/veh		16.6			12.6			21.0			16.3	
Approach LOS		B			B			C			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		20.0		20.0		20.0		19.8				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				16.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 22: Indian Hill Blvd & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕	↗	↘	↕	↗	↘	↕	↗	↘	↕	↗
Traffic Volume (veh/h)	218	1056	184	196	632	160	196	755	167	178	692	135
Future Volume (veh/h)	218	1056	184	196	632	160	196	755	167	178	692	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	237	1148	200	213	687	174	213	821	182	193	752	147
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1421	634	216	1421	634	281	1421	634	306	1185	232
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	755	3554	1585	490	3554	1585	619	3554	1585	666	2964	579
Grp Volume(v), veh/h	237	1148	200	213	687	174	213	821	182	193	451	448
Grp Sat Flow(s),veh/h/ln	755	1777	1585	490	1777	1585	619	1777	1585	666	1777	1766
Q Serve(g_s), s	11.5	12.9	3.9	5.1	6.5	3.3	8.8	8.1	3.5	9.9	9.2	9.2
Cycle Q Clear(g_c), s	18.0	12.9	3.9	18.0	6.5	3.3	18.0	8.1	3.5	18.0	9.2	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	353	1421	634	216	1421	634	281	1421	634	306	711	706
V/C Ratio(X)	0.67	0.81	0.32	0.99	0.48	0.27	0.76	0.58	0.29	0.63	0.63	0.63
Avail Cap(c_a), veh/h	353	1421	634	216	1421	634	281	1421	634	306	711	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	17.8	12.0	9.3	21.8	10.0	9.1	20.0	10.5	9.2	18.7	10.9	10.9
Incr Delay (d2), s/veh	4.8	3.6	0.3	54.2	0.2	0.2	17.2	1.7	1.1	5.7	2.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.6	1.1	5.3	2.0	0.9	3.4	2.8	1.1	2.3	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	15.5	9.6	76.0	10.3	9.3	37.2	12.2	10.3	24.4	13.4	13.4
LnGrp LOS	C	B	A	E	B	A	D	B	B	C	B	B
Approach Vol, veh/h		1585			1074			1216			1092	
Approach Delay, s/veh		15.8			23.1			16.3			15.4	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		20.0		20.0		20.0		20.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	790	50	56	1087	79	62	125	43	119	93	65
Future Volume (veh/h)	54	790	50	56	1087	79	62	125	43	119	93	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	859	54	61	1182	86	67	136	47	129	101	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	1648	104	310	1630	118	194	368	112	558	682	578
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	437	3395	213	611	3359	244	323	1009	308	1201	1870	1585
Grp Volume(v), veh/h	59	450	463	61	625	643	250	0	0	129	101	71
Grp Sat Flow(s),veh/h/ln	437	1777	1832	611	1777	1826	1640	0	0	1201	1870	1585
Q Serve(g_s), s	7.4	10.5	10.5	4.6	16.7	16.8	1.0	0.0	0.0	0.0	2.2	1.8
Cycle Q Clear(g_c), s	24.2	10.5	10.5	15.0	16.7	16.8	6.2	0.0	0.0	4.6	2.2	1.8
Prop In Lane	1.00		0.12	1.00		0.13	0.27		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	210	862	889	310	862	886	674	0	0	558	682	578
V/C Ratio(X)	0.28	0.52	0.52	0.20	0.72	0.73	0.37	0.00	0.00	0.23	0.15	0.12
Avail Cap(c_a), veh/h	227	933	962	334	933	959	674	0	0	558	682	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.18	0.18	0.18	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	10.6	10.6	15.8	12.3	12.3	14.1	0.0	0.0	13.6	12.8	12.7
Incr Delay (d2), s/veh	0.6	0.4	0.4	0.1	0.5	0.5	1.6	0.0	0.0	1.0	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.5	3.6	0.6	5.6	5.8	2.6	0.0	0.0	1.3	0.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	11.1	11.1	15.9	12.7	12.7	15.6	0.0	0.0	14.5	13.3	13.1
LnGrp LOS	C	B	B	B	B	B	B	A	A	B	B	B
Approach Vol, veh/h		972			1329			250			301	
Approach Delay, s/veh		11.8			12.9			15.6			13.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.4		33.6		26.4		33.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		8.2		26.2		6.6		18.8				
Green Ext Time (p_c), s		1.1		2.9		1.0		7.3				
Intersection Summary												
HCM 6th Ctrl Delay				12.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1212	44	37	830	79	49	50	56	129	122	111
Future Volume (veh/h)	66	1212	44	37	830	79	49	50	56	129	122	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	1317	48	40	902	86	53	54	61	140	133	121
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	1702	62	190	1595	152	220	224	208	613	680	576
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	570	3497	127	398	3278	313	389	615	573	1277	1870	1585
Grp Volume(v), veh/h	72	669	696	40	489	499	168	0	0	140	133	121
Grp Sat Flow(s),veh/h/ln	570	1777	1847	398	1777	1814	1577	0	0	1277	1870	1585
Q Serve(g_s), s	6.1	18.6	18.6	5.5	11.7	11.7	0.0	0.0	0.0	0.0	2.9	3.2
Cycle Q Clear(g_c), s	17.8	18.6	18.6	24.2	11.7	11.7	4.0	0.0	0.0	3.4	2.9	3.2
Prop In Lane	1.00		0.07	1.00		0.17	0.32		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	286	865	899	190	865	883	652	0	0	613	680	576
V/C Ratio(X)	0.25	0.77	0.77	0.21	0.57	0.57	0.26	0.00	0.00	0.23	0.20	0.21
Avail Cap(c_a), veh/h	308	933	970	205	933	952	652	0	0	613	680	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.55	0.55	0.55	0.74	0.74	0.74	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	12.7	12.7	22.6	10.9	10.9	13.4	0.0	0.0	13.2	13.1	13.2
Incr Delay (d2), s/veh	0.3	2.1	2.1	0.4	0.5	0.5	1.0	0.0	0.0	0.9	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.6	6.9	0.5	4.0	4.0	1.6	0.0	0.0	1.3	1.2	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	14.8	14.8	23.0	11.4	11.4	14.4	0.0	0.0	14.1	13.7	14.0
LnGrp LOS	B	B	B	C	B	B	B	A	A	B	B	B
Approach Vol, veh/h		1437			1028			168			394	
Approach Delay, s/veh		14.9			11.9			14.4			13.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.3		33.7		26.3		33.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		6.0		20.6		5.4		26.2				
Green Ext Time (p_c), s		0.7		7.0		1.4		3.0				
Intersection Summary												
HCM 6th Ctrl Delay				13.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	316	547	23	49	964	317	110	435	36	117	248	255
Future Volume (veh/h)	316	547	23	49	964	317	110	435	36	117	248	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	343	595	25	53	1048	345	120	473	39	127	270	277
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	351	1869	78	68	999	325	139	595	49	144	340	288
Arrive On Green	0.20	0.54	0.54	0.04	0.38	0.38	0.08	0.18	0.18	0.08	0.18	0.18
Sat Flow, veh/h	1781	3475	146	1781	2634	858	1781	3325	273	1781	1870	1585
Grp Volume(v), veh/h	343	304	316	53	703	690	120	252	260	127	270	277
Grp Sat Flow(s),veh/h/ln	1781	1777	1844	1781	1777	1716	1781	1777	1821	1781	1870	1585
Q Serve(g_s), s	21.1	10.5	10.5	3.2	41.7	41.7	7.3	14.9	15.0	7.8	15.2	19.1
Cycle Q Clear(g_c), s	21.1	10.5	10.5	3.2	41.7	41.7	7.3	14.9	15.0	7.8	15.2	19.1
Prop In Lane	1.00		0.08	1.00		0.50	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	351	956	992	68	674	650	139	318	326	144	340	288
V/C Ratio(X)	0.98	0.32	0.32	0.78	1.04	1.06	0.86	0.79	0.80	0.88	0.79	0.96
Avail Cap(c_a), veh/h	351	956	992	143	674	650	139	318	326	144	340	288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	14.2	14.2	52.4	34.1	34.2	50.1	43.2	43.2	50.0	43.0	44.6
Incr Delay (d2), s/veh	37.9	0.2	0.2	16.8	46.7	52.4	38.8	18.1	18.1	42.1	17.2	44.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	3.9	4.1	1.7	25.7	25.8	4.7	8.0	8.3	5.2	8.7	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.8	14.3	14.3	69.2	80.9	86.5	88.9	61.3	61.3	92.2	60.2	88.6
LnGrp LOS	F	B	B	E	F	F	F	E	E	F	E	F
Approach Vol, veh/h		963			1446			632			674	
Approach Delay, s/veh		38.3			83.1			66.5			77.9	
Approach LOS		D			F			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	24.2	8.7	63.7	13.1	24.5	26.2	46.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.9	19.7	8.8	54.6	8.6	20.0	21.7	41.7				
Max Q Clear Time (g_c+I1), s	9.8	17.0	5.2	12.5	9.3	21.1	23.1	43.7				
Green Ext Time (p_c), s	0.0	0.8	0.0	3.7	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				67.8								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	1193	60	71	636	127	80	252	66	247	413	282
Future Volume (veh/h)	203	1193	60	71	636	127	80	252	66	247	413	282
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	221	1297	65	77	691	138	87	274	72	268	449	307
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	1282	64	99	837	167	109	603	156	279	582	493
Arrive On Green	0.14	0.37	0.37	0.06	0.28	0.28	0.06	0.22	0.22	0.16	0.31	0.31
Sat Flow, veh/h	1781	3444	172	1781	2952	589	1781	2796	721	1781	1870	1585
Grp Volume(v), veh/h	221	668	694	77	416	413	87	172	174	268	449	307
Grp Sat Flow(s),veh/h/ln	1781	1777	1839	1781	1777	1764	1781	1777	1741	1781	1870	1585
Q Serve(g_s), s	10.9	33.5	33.5	3.8	19.7	19.7	4.3	7.6	7.8	13.4	19.6	14.9
Cycle Q Clear(g_c), s	10.9	33.5	33.5	3.8	19.7	19.7	4.3	7.6	7.8	13.4	19.6	14.9
Prop In Lane	1.00		0.09	1.00		0.33	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	257	661	685	99	504	500	109	383	375	279	582	493
V/C Ratio(X)	0.86	1.01	1.01	0.78	0.83	0.83	0.80	0.45	0.46	0.96	0.77	0.62
Avail Cap(c_a), veh/h	293	661	685	115	504	500	109	383	375	279	582	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	28.2	28.3	42.0	30.2	30.2	41.7	30.7	30.8	37.7	28.1	26.5
Incr Delay (d2), s/veh	13.4	29.9	30.2	25.0	10.8	10.9	33.0	3.8	4.1	43.0	9.5	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	18.3	19.0	2.3	9.4	9.4	2.9	3.5	3.6	9.1	10.1	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	58.2	58.4	66.9	40.9	41.1	74.7	34.4	34.8	80.6	37.6	32.3
LnGrp LOS	D	F	F	E	D	D	E	C	C	F	D	C
Approach Vol, veh/h		1583			906			433			1024	
Approach Delay, s/veh		57.3			43.2			42.7			47.3	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	23.9	9.5	38.0	10.0	32.5	17.5	30.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	14.1	18.6	5.8	33.5	5.5	27.2	14.8	24.5				
Max Q Clear Time (g_c+I1), s	15.4	9.8	5.8	35.5	6.3	21.6	12.9	21.7				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	2.0	0.1	1.3				
Intersection Summary												
HCM 6th Ctrl Delay				49.9								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary

25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	30	0	122	0	0	0	49	432	0	0	404	22
Future Volume (veh/h)	30	0	122	0	0	0	49	432	0	0	404	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	0	133	0	0	0	53	470	0	0	439	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	0	170	2	4	0	73	2818	1257	2	2495	1113
Arrive On Green	0.05	0.00	0.11	0.00	0.00	0.00	0.04	0.79	0.00	0.00	0.70	0.70
Sat Flow, veh/h	1781	0	1585	1781	1870	0	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	33	0	133	0	0	0	53	470	0	0	439	24
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.6	0.0	7.4	0.0	0.0	0.0	2.6	2.8	0.0	0.0	3.8	0.4
Cycle Q Clear(g_c), s	1.6	0.0	7.4	0.0	0.0	0.0	2.6	2.8	0.0	0.0	3.8	0.4
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	0	170	2	4	0	73	2818	1257	2	2495	1113
V/C Ratio(X)	0.34	0.00	0.78	0.00	0.00	0.00	0.73	0.17	0.00	0.00	0.18	0.02
Avail Cap(c_a), veh/h	356	0	317	99	374	0	131	2818	1257	99	2495	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.93	0.93
Uniform Delay (d), s/veh	41.0	0.0	39.2	0.0	0.0	0.0	42.7	2.2	0.0	0.0	4.6	4.1
Incr Delay (d2), s/veh	2.0	0.0	7.7	0.0	0.0	0.0	13.0	0.1	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	3.2	0.0	0.0	0.0	1.4	0.6	0.0	0.0	1.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	0.0	46.9	0.0	0.0	0.0	55.7	2.4	0.0	0.0	4.7	4.1
LnGrp LOS	D	A	D	A	A	A	E	A	A	A	A	A
Approach Vol, veh/h		166			0			523			463	
Approach Delay, s/veh		46.1			0.0			7.8			4.7	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	75.9	0.0	14.1	8.2	67.7	9.4	4.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	30.5	5.0	18.0	6.6	19.4	18.0	18.0				
Max Q Clear Time (g_c+I1), s	0.0	4.8	0.0	9.4	4.6	5.8	3.6	0.0				
Green Ext Time (p_c), s	0.0	3.0	0.0	0.4	0.0	2.3	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			12.0									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	44	1	122	45	7	30	59	503	3	5	445	30
Future Volume (veh/h)	44	1	122	45	7	30	59	503	3	5	445	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	1	133	49	8	33	64	547	3	5	484	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	1	181	74	30	124	84	2174	970	12	2029	905
Arrive On Green	0.06	0.12	0.12	0.04	0.09	0.09	0.05	0.61	0.61	0.01	0.57	0.57
Sat Flow, veh/h	1781	12	1575	1781	319	1315	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	48	0	134	49	0	41	64	547	3	5	484	33
Grp Sat Flow(s),veh/h/ln	1781	0	1587	1781	0	1634	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.1	0.0	6.5	2.2	0.0	1.9	2.8	5.7	0.1	0.2	5.4	0.7
Cycle Q Clear(g_c), s	2.1	0.0	6.5	2.2	0.0	1.9	2.8	5.7	0.1	0.2	5.4	0.7
Prop In Lane	1.00		0.99	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	183	74	0	154	84	2174	970	12	2029	905
V/C Ratio(X)	0.43	0.00	0.73	0.66	0.00	0.27	0.76	0.25	0.00	0.43	0.24	0.04
Avail Cap(c_a), veh/h	401	0	585	145	0	368	158	2174	970	111	2029	905
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	36.2	0.0	34.2	37.8	0.0	33.6	37.6	7.1	6.0	39.6	8.5	7.5
Incr Delay (d2), s/veh	2.7	0.0	5.6	9.8	0.0	0.9	12.9	0.3	0.0	21.3	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.8	1.1	0.0	0.8	1.5	1.8	0.0	0.2	1.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	0.0	39.8	47.5	0.0	34.5	50.5	7.4	6.0	60.9	8.8	7.6
LnGrp LOS	D	A	D	D	A	C	D	A	A	E	A	A
Approach Vol, veh/h		182			90			614			522	
Approach Delay, s/veh		39.5			41.6			11.9			9.2	
Approach LOS		D			D			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	53.4	7.8	13.7	8.3	50.2	9.5	12.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	21.0	6.5	29.5	7.1	18.9	18.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	7.7	4.2	8.5	4.8	7.4	4.1	3.9				
Green Ext Time (p_c), s	0.0	2.8	0.0	0.8	0.0	2.4	0.1	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			16.4									
HCM 6th LOS			B									

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	50	0	0	30	0	0
Future Vol, veh/h	50	0	0	30	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	0	0	33	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 27
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	- 0	- 0 1042
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 1042
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	45	1	0	59	0	22
Future Vol, veh/h	45	1	0	59	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	1	0	64	0	24

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	25
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0 1045
Stage 1	-	-	0	-	0 -
Stage 2	-	-	0	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	- 1045
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	1045	-	-	-
HCM Lane V/C Ratio	0.023	-	-	-
HCM Control Delay (s)	8.5	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	30	0	0	16
Future Vol, veh/h	0	0	30	0	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	33	0	0	17

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	17	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	1058	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1058	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	22	21	0	0	77
Future Vol, veh/h	0	22	21	0	0	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	24	23	0	0	84

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	12	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	1065	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1065	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 1065	-
HCM Lane V/C Ratio	-	- 0.022	-
HCM Control Delay (s)	-	- 8.5	-
HCM Lane LOS	-	- A	-
HCM 95th %tile Q(veh)	-	- 0.1	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	87	50	0
Future Vol, veh/h	0	0	0	87	50	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	92	53	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	27	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	7.14	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.92	-
Pot Cap-1 Maneuver	0	883	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			
Mov Cap-1 Maneuver	-	883	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

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

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	22	0	68	100	2
Future Vol, veh/h	0	22	0	68	100	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	23	0	72	105	2

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	54	-	0	0
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	850	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	850	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	850	-	-
HCM Lane V/C Ratio	-	0.027	-	-
HCM Control Delay (s)	-	9.4	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↗	↖	↕		↖	↗	↖
Traffic Volume (veh/h)	0	0	0	124	0	318	0	522	52	93	1065	1
Future Volume (veh/h)	0	0	0	124	0	318	0	522	52	93	1065	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	131	0	335	0	549	55	98	1121	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	515	0	684	515	436	193	1576	158	985	2546	2
Arrive On Green	0.00	0.00	0.00	0.28	0.00	0.28	0.00	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	0	1870	0	1781	1870	1585	502	3262	326	1583	5269	5
Grp Volume(v), veh/h	0	0	0	131	0	335	0	298	306	98	724	398
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	502	1777	1812	791	1702	1870
Q Serve(g_s), s	0.0	0.0	0.0	2.1	0.0	7.2	0.0	3.9	3.9	1.5	5.2	5.2
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.1	0.0	7.2	0.0	3.9	3.9	5.4	5.2	5.2
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	0	515	0	684	515	436	193	859	875	985	1645	903
V/C Ratio(X)	0.00	0.00	0.00	0.19	0.00	0.77	0.00	0.35	0.35	0.10	0.44	0.44
Avail Cap(c_a), veh/h	0	904	0	1054	904	766	193	859	875	985	1645	903
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	10.6	0.0	12.4	0.0	6.0	6.0	7.7	6.3	6.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	2.9	0.0	1.1	1.1	0.2	0.9	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	2.3	0.0	0.9	0.9	0.2	1.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	10.7	0.0	15.3	0.0	7.1	7.1	7.9	7.2	7.9
LnGrp LOS	A	A	A	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		0			466			604			1220	
Approach Delay, s/veh		0.0			14.0			7.1			7.5	
Approach LOS					B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		14.8		22.5		14.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		5.9		0.0		7.4		9.2				
Green Ext Time (p_c), s		2.6		0.0		5.8		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				8.7								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

29: Richton St & Monte Vista Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↖	↖	↕		↖	↗	↖
Traffic Volume (veh/h)	0	0	0	106	0	127	1	928	72	34	870	0
Future Volume (veh/h)	0	0	0	106	0	127	1	928	72	34	870	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	112	0	134	1	977	76	36	916	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	267	0	483	267	226	520	1909	149	867	2918	0
Arrive On Green	0.00	0.00	0.00	0.14	0.00	0.14	0.57	0.57	0.57	0.57	0.57	0.00
Sat Flow, veh/h	0	1870	0	1781	1870	1585	610	3341	260	1040	5274	0
Grp Volume(v), veh/h	0	0	0	112	0	134	1	520	533	36	916	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	610	1777	1824	520	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	2.5	0.0	5.6	5.6	0.7	3.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	0.0	2.5	3.0	5.6	5.6	6.3	3.0	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	0	267	0	483	267	226	520	1015	1042	867	2918	0
V/C Ratio(X)	0.00	0.00	0.00	0.23	0.00	0.59	0.00	0.51	0.51	0.04	0.31	0.00
Avail Cap(c_a), veh/h	0	1069	0	1247	1069	906	520	1015	1042	867	2918	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	12.3	0.0	12.6	4.3	4.1	4.1	6.0	3.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	2.5	0.0	1.8	1.8	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.6	0.0	0.8	0.0	1.1	1.2	0.1	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	12.6	0.0	15.1	4.3	5.9	5.9	6.1	3.8	0.0
LnGrp LOS	A	A	A	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		0			246			1054			952	
Approach Delay, s/veh		0.0			14.0			5.9			3.9	
Approach LOS					B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		9.0		22.5		9.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		7.6		0.0		8.3		4.5				
Green Ext Time (p_c), s		5.0		0.0		4.6		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				5.9								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	39	737	277	407	1261	73	151	66	302	46	215	75
Future Volume (veh/h)	39	737	277	407	1261	73	151	66	302	46	215	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	801	301	442	1371	79	164	72	328	50	234	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	279	2468	1101	491	2468	1101	213	365	326	80	535	182
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	396	3554	1585	679	3554	1585	1064	1777	1585	985	2600	887
Grp Volume(v), veh/h	42	801	301	442	1371	79	164	72	328	50	158	158
Grp Sat Flow(s),veh/h/ln	396	1777	1585	679	1777	1585	1064	1777	1585	985	1777	1711
Q Serve(g_s), s	5.3	8.0	6.4	54.5	17.3	1.4	11.2	3.0	18.5	0.0	7.0	7.3
Cycle Q Clear(g_c), s	22.6	8.0	6.4	62.5	17.3	1.4	18.5	3.0	18.5	18.5	7.0	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	279	2468	1101	491	2468	1101	213	365	326	80	365	352
V/C Ratio(X)	0.15	0.32	0.27	0.90	0.56	0.07	0.77	0.20	1.01	0.62	0.43	0.45
Avail Cap(c_a), veh/h	279	2468	1101	491	2468	1101	213	365	326	80	365	352
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.55	0.55	0.55	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	5.4	5.2	19.7	6.8	4.4	40.5	29.6	35.8	45.0	31.2	31.3
Incr Delay (d2), s/veh	0.2	0.1	0.1	12.0	0.2	0.0	19.5	1.0	46.6	31.6	3.7	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.5	1.8	10.5	5.3	0.4	4.8	1.4	11.2	1.8	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.7	5.5	5.3	31.7	7.0	4.4	59.9	30.6	82.3	76.6	34.9	35.4
LnGrp LOS	B	A	A	C	A	A	E	C	F	E	C	D
Approach Vol, veh/h		1144			1892			564			366	
Approach Delay, s/veh		5.7			12.7			69.2			40.8	
Approach LOS		A			B			E			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		67.0		23.0		67.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		62.5		18.5		62.5				
Max Q Clear Time (g_c+I1), s		20.5		24.6		20.5		64.5				
Green Ext Time (p_c), s		0.0		9.2		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	1043	127	246	979	79	261	126	298	55	89	48
Future Volume (veh/h)	64	1043	127	246	979	79	261	126	298	55	89	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	1134	138	267	1064	86	284	137	324	60	97	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	360	2332	1040	336	2332	1040	331	411	367	121	529	266
Arrive On Green	0.66	0.66	0.66	0.66	0.66	0.66	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	530	3554	1585	496	3554	1585	1239	1777	1585	931	2289	1151
Grp Volume(v), veh/h	70	1134	138	267	1064	86	284	137	324	60	74	75
Grp Sat Flow(s),veh/h/ln	530	1777	1585	496	1777	1585	1239	1777	1585	931	1777	1663
Q Serve(g_s), s	6.0	12.9	2.6	39.6	11.8	1.6	15.6	5.1	15.8	2.7	2.7	2.9
Cycle Q Clear(g_c), s	17.7	12.9	2.6	52.5	11.8	1.6	18.5	5.1	15.8	18.5	2.7	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	360	2332	1040	336	2332	1040	331	411	367	121	411	385
V/C Ratio(X)	0.19	0.49	0.13	0.80	0.46	0.08	0.86	0.33	0.88	0.49	0.18	0.20
Avail Cap(c_a), veh/h	360	2332	1040	336	2332	1040	331	411	367	121	411	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.86	0.86	0.86	0.71	0.71	0.71	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	6.9	5.2	21.8	6.7	5.0	33.4	25.6	29.7	39.3	24.7	24.8
Incr Delay (d2), s/veh	0.3	0.2	0.1	10.9	0.1	0.0	18.1	1.5	19.4	13.7	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.0	0.7	5.8	3.6	0.4	7.1	2.3	7.8	1.6	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	7.1	5.2	32.6	6.9	5.0	51.4	27.2	49.1	53.0	25.6	25.9
LnGrp LOS	B	A	A	C	A	A	D	C	D	D	C	C
Approach Vol, veh/h		1342			1417			745			209	
Approach Delay, s/veh		7.1			11.6			45.9			33.6	
Approach LOS		A			B			D			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		57.0		23.0		57.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		52.5		18.5		52.5				
Max Q Clear Time (g_c+I1), s		20.5		19.7		20.5		54.5				
Green Ext Time (p_c), s		0.0		12.3		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				18.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	83	985	326	151	1446	27	361	105	139	74	174	174
Future Volume (veh/h)	83	985	326	151	1446	27	361	105	139	74	174	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	1071	354	164	1572	29	392	114	151	80	189	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	1759	785	266	1759	785	457	664	563	520	664	563
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	326	3554	1585	527	3554	1585	1194	1870	1585	1279	1870	1585
Grp Volume(v), veh/h	90	1071	354	164	1572	29	392	114	151	80	189	189
Grp Sat Flow(s),veh/h/ln	326	1777	1585	527	1777	1585	1194	1870	1585	1279	1870	1585
Q Serve(g_s), s	5.7	13.1	8.7	16.6	24.0	0.6	16.9	2.5	4.1	2.8	4.4	5.2
Cycle Q Clear(g_c), s	29.7	13.1	8.7	29.7	24.0	0.6	21.3	2.5	4.1	5.3	4.4	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	151	1759	785	266	1759	785	457	664	563	520	664	563
V/C Ratio(X)	0.60	0.61	0.45	0.62	0.89	0.04	0.86	0.17	0.27	0.15	0.28	0.34
Avail Cap(c_a), veh/h	151	1759	785	266	1759	785	457	664	563	520	664	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.53	0.53	0.53	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	11.0	9.9	22.6	13.7	7.8	22.7	13.3	13.8	15.1	13.9	14.2
Incr Delay (d2), s/veh	6.0	0.6	0.4	2.3	3.5	0.0	14.3	0.4	0.9	0.6	1.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.4	2.6	2.3	8.6	0.2	7.1	1.0	1.4	0.8	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	11.5	10.2	24.9	17.3	7.8	37.0	13.7	14.7	15.7	15.0	15.8
LnGrp LOS	D	B	B	C	B	A	D	B	B	B	B	B
Approach Vol, veh/h		1515			1765			657			458	
Approach Delay, s/veh		12.6			17.8			27.8			15.4	
Approach LOS		B			B			C			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.8		34.2		25.8		34.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.3		29.7		21.3		29.7				
Max Q Clear Time (g_c+I1), s		23.3		31.7		7.3		31.7				
Green Ext Time (p_c), s		0.0		0.0		1.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (veh/h)	134	1068	175	213	1122	75	217	95	109	64	94	126
Future Volume (veh/h)	134	1068	175	213	1122	75	217	95	109	64	94	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	1161	190	232	1220	82	236	103	118	70	102	137
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	2401	1071	331	2401	1071	312	420	356	311	420	356
Arrive On Green	0.68	0.68	0.68	0.45	0.45	0.45	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	457	3554	1585	484	3554	1585	1293	1870	1585	1291	1870	1585
Grp Volume(v), veh/h	146	1161	190	232	1220	82	236	103	118	70	102	137
Grp Sat Flow(s),veh/h/ln	457	1777	1585	484	1777	1585	1293	1870	1585	1291	1870	1585
Q Serve(g_s), s	24.0	14.2	4.0	41.5	22.0	2.6	16.2	4.1	5.6	4.2	4.0	6.6
Cycle Q Clear(g_c), s	46.0	14.2	4.0	55.7	22.0	2.6	20.2	4.1	5.6	8.3	4.0	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	277	2401	1071	331	2401	1071	312	420	356	311	420	356
V/C Ratio(X)	0.53	0.48	0.18	0.70	0.51	0.08	0.76	0.25	0.33	0.22	0.24	0.39
Avail Cap(c_a), veh/h	281	2428	1083	334	2428	1083	312	420	356	311	420	356
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.66	0.66	0.66	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	7.0	5.4	30.0	14.0	8.7	37.0	28.6	29.2	32.1	28.6	29.6
Incr Delay (d2), s/veh	1.5	0.1	0.1	4.3	0.1	0.0	13.2	1.2	2.1	1.7	1.4	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.5	1.1	5.3	9.3	0.8	6.2	1.9	2.3	1.4	1.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	7.2	5.4	34.3	14.1	8.7	50.3	29.8	31.3	33.7	30.0	32.8
LnGrp LOS	C	A	A	C	B	A	D	C	C	C	C	C
Approach Vol, veh/h		1497			1534			457			309	
Approach Delay, s/veh		8.5			16.9			40.8			32.1	
Approach LOS		A			B			D			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.7		65.3		24.7		65.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		61.5		19.5		61.5				
Max Q Clear Time (g_c+I1), s		22.2		48.0		10.3		57.7				
Green Ext Time (p_c), s		0.0		8.7		0.8		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				17.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↗	
Traffic Volume (veh/h)	54	837	250	520	1291	87	236	78	405	91	79	92
Future Volume (veh/h)	54	837	250	520	1291	87	236	78	405	91	79	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	910	272	565	1403	95	257	85	440	99	86	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1008	449	626	1490	664	438	471	399	384	438	391
Arrive On Green	0.05	0.28	0.28	0.18	0.42	0.42	0.06	0.25	0.25	0.06	0.25	0.25
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1777	1585
Grp Volume(v), veh/h	59	910	272	565	1403	95	257	85	440	99	86	100
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	2.6	19.7	11.9	12.8	30.3	3.0	5.1	2.9	20.1	3.3	3.1	4.1
Cycle Q Clear(g_c), s	2.6	19.7	11.9	12.8	30.3	3.0	5.1	2.9	20.1	3.3	3.1	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	1008	449	626	1490	664	438	471	399	384	438	391
V/C Ratio(X)	0.73	0.90	0.61	0.90	0.94	0.14	0.59	0.18	1.10	0.26	0.20	0.26
Avail Cap(c_a), veh/h	111	1031	460	626	1490	664	438	471	399	391	438	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	27.6	24.8	32.1	22.3	14.4	24.4	23.5	29.9	20.5	23.9	24.2
Incr Delay (d2), s/veh	11.5	9.2	1.8	16.3	12.2	0.1	2.0	0.8	75.1	0.4	1.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	8.9	4.3	6.4	13.3	1.0	1.8	1.3	15.3	1.3	1.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	36.8	26.6	48.4	34.5	14.5	26.3	24.3	105.1	20.8	24.9	25.8
LnGrp LOS	D	D	C	D	C	B	C	C	F	C	C	C
Approach Vol, veh/h		1241			2063			782			285	
Approach Delay, s/veh		35.1			37.4			70.4			23.8	
Approach LOS		D			D			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	24.6	19.0	27.2	9.6	24.2	8.2	38.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.3	14.5	23.2	5.1	19.2	5.0	32.7				
Max Q Clear Time (g_c+I1), s	5.3	22.1	14.8	21.7	7.1	6.1	4.6	32.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.0	0.7	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			41.8									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

3: Monte Vista Ave/Padua Ave & Baseline Rd

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘	↑	↗	↘	↑↑	↘
Traffic Volume (veh/h)	69	1010	211	495	1045	143	340	141	593	98	85	81
Future Volume (veh/h)	69	1010	211	495	1045	143	340	141	593	98	85	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	1098	229	538	1136	155	370	153	645	107	92	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	1086	484	557	1466	654	481	520	440	316	434	374
Arrive On Green	0.05	0.31	0.31	0.16	0.41	0.41	0.03	0.09	0.09	0.06	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1807	1559
Grp Volume(v), veh/h	75	1098	229	538	1136	155	370	153	645	107	90	90
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1590
Q Serve(g_s), s	3.7	27.5	10.6	13.9	24.8	5.7	8.4	6.9	25.0	4.1	3.7	4.1
Cycle Q Clear(g_c), s	3.7	27.5	10.6	13.9	24.8	5.7	8.4	6.9	25.0	4.1	3.7	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Lane Grp Cap(c), veh/h	96	1086	484	557	1466	654	481	520	440	316	426	382
V/C Ratio(X)	0.78	1.01	0.47	0.97	0.77	0.24	0.77	0.29	1.46	0.34	0.21	0.24
Avail Cap(c_a), veh/h	129	1086	484	557	1466	654	481	520	440	316	426	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	31.3	25.4	37.5	22.8	17.2	28.9	32.6	40.9	23.8	27.4	27.5
Incr Delay (d2), s/veh	17.1	28.4	0.6	29.7	2.7	0.2	6.9	1.3	220.5	0.6	1.1	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	15.1	3.8	7.8	9.8	1.9	3.7	3.3	37.4	1.7	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	59.7	26.0	67.2	25.5	17.4	35.8	34.0	261.3	24.5	28.5	29.0
LnGrp LOS	E	F	C	E	C	B	D	C	F	C	C	C
Approach Vol, veh/h		1402			1829			1168			287	
Approach Delay, s/veh		54.1			37.1			160.1			27.2	
Approach LOS		D			D			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	29.5	19.0	32.0	12.9	26.1	9.4	41.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	25.0	14.5	27.5	8.4	21.6	6.5	35.5				
Max Q Clear Time (g_c+I1), s	6.1	27.0	15.9	29.5	10.4	6.1	5.7	26.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.8	0.0	4.9				
Intersection Summary												
HCM 6th Ctrl Delay				72.2								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘		↗↗	↘		↘
Traffic Volume (veh/h)	92	630	571	29	1236	639	163	0	519	41	0	564
Future Volume (veh/h)	92	630	571	29	1236	639	163	0	519	41	0	564
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	100	685	621	32	1343	695	177	0	564	45	0	613
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	111	1446	645	49	1321	589	808	0	0	808	0	0
Arrive On Green	0.06	0.41	0.41	0.03	0.37	0.37	0.45	0.00	0.00	0.45	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	177		1781	45	
Grp Volume(v), veh/h	100	685	621	32	1343	695	177	20.0		45	18.4	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	C		1781	B	
Q Serve(g_s), s	6.7	17.0	45.9	2.1	44.6	44.6	7.2			1.7		
Cycle Q Clear(g_c), s	6.7	17.0	45.9	2.1	44.6	44.6	7.2			1.7		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	111	1446	645	49	1321	589	808			808		
V/C Ratio(X)	0.90	0.47	0.96	0.66	1.02	1.18	0.22			0.06		
Avail Cap(c_a), veh/h	111	1446	645	94	1321	589	808			808		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	55.9	26.2	34.7	57.8	37.7	37.7	19.9			18.4		
Incr Delay (d2), s/veh	54.7	0.2	26.4	14.0	29.0	97.5	0.1			0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.6	6.9	21.3	1.1	23.6	32.3	2.9			0.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	110.5	26.4	61.2	71.9	66.7	135.2	20.0			18.4		
LnGrp LOS	F	C	E	E	F	F	C			B		
Approach Vol, veh/h		1406			2070							
Approach Delay, s/veh		47.7			89.8							
Approach LOS		D			F							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	58.9		7.8	53.3	58.9		12.0	49.1				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	8.6		6.3	45.8	12.5		7.5	44.6				
Max Q Clear Time (g_c+I1), s	3.7		4.1	47.9	9.2		8.7	46.6				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			69.6									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/10/2024
























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↘	↘	↑↑	↘	↘		↘↘	↘		↘
Traffic Volume (veh/h)	154	1129	492	32	924	428	123	0	821	77	0	591
Future Volume (veh/h)	154	1129	492	32	924	428	123	0	821	77	0	591
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	167	1227	535	35	1004	465	134	0	892	84	0	642
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	183	1300	580	55	1045	466	834	0	0	834	0	0
Arrive On Green	0.10	0.37	0.37	0.03	0.29	0.29	0.47	0.00	0.00	0.47	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	134		1781	84	
Grp Volume(v), veh/h	167	1227	535	35	1004	465	134	15.4		84	14.9	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	9.3	33.4	32.3	1.9	27.8	29.3	4.3			2.6		
Cycle Q Clear(g_c), s	9.3	33.4	32.3	1.9	27.8	29.3	4.3			2.6		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	183	1300	580	55	1045	466	834			834		
V/C Ratio(X)	0.91	0.94	0.92	0.63	0.96	1.00	0.16			0.10		
Avail Cap(c_a), veh/h	183	1300	580	89	1045	466	834			834		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	44.4	30.7	30.3	47.9	34.7	35.3	15.3			14.9		
Incr Delay (d2), s/veh	41.9	13.7	20.4	11.3	19.1	41.1	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	6.1	15.6	14.6	1.0	14.0	15.9	1.6			1.0		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.3	44.4	50.8	59.2	53.8	76.4	15.4			14.9		
LnGrp LOS	F	D	D	E	D	E	B			B		
Approach Vol, veh/h		1929			1504							
Approach Delay, s/veh		49.8			60.9							
Approach LOS		D			E							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	51.3		7.6	41.1	51.3		14.8	33.9				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	7.5		5.0	34.7	8.5		10.3	29.4				
Max Q Clear Time (g_c+I1), s	4.6		3.9	35.4	6.3		11.3	31.3				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			52.3									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/04/2024

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	201	2	197	1	0	0	290	528	2	0	476	301	
Future Volume (vph)	201	2	197	1	0	0	290	528	2	0	476	301	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5	
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95			0.95	1.00	
Frt	1.00	0.92	0.85		1.00		1.00	1.00			1.00	0.85	
Flt Protected	0.95	0.98	1.00		0.95		0.95	1.00			1.00	1.00	
Satd. Flow (prot)	1681	1528	1504		1770		1770	3537			3539	1583	
Flt Permitted	0.95	0.98	1.00		1.00		0.95	1.00			1.00	1.00	
Satd. Flow (perm)	1681	1528	1504		1863		1770	3537			3539	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	218	2	214	1	0	0	315	574	2	0	517	327	
RTOR Reduction (vph)	0	46	118	0	0	0	0	0	0	0	0	201	
Lane Group Flow (vph)	150	99	21	0	1	0	315	576	0	0	517	126	
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm	
Protected Phases	4	4			8		5	2			6	6	
Permitted Phases			4	8						6		6	
Actuated Green, G (s)	13.4	13.4	13.4		1.2		22.6	61.9			34.8	34.8	
Effective Green, g (s)	13.4	13.4	13.4		1.2		22.6	61.9			34.8	34.8	
Actuated g/C Ratio	0.15	0.15	0.15		0.01		0.25	0.69			0.39	0.39	
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5			4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)	250	227	223		24		444	2432			1368	612	
v/s Ratio Prot	c0.09	0.06					c0.18	0.16			c0.15		
v/s Ratio Perm			0.01		c0.00							0.08	
v/c Ratio	0.60	0.44	0.09		0.04		0.71	0.24			0.38	0.21	
Uniform Delay, d1	35.8	34.9	33.1		43.8		30.7	5.2			19.8	18.4	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00	
Incremental Delay, d2	3.8	1.3	0.2		0.7		5.1	0.2			0.8	0.8	
Delay (s)	39.6	36.2	33.2		44.5		35.9	5.5			20.6	19.2	
Level of Service	D	D	C		D		D	A			C	B	
Approach Delay (s)		36.4			44.5			16.2			20.1		
Approach LOS		D			D			B			C		
Intersection Summary													
HCM 2000 Control Delay			21.8		HCM 2000 Level of Service						C		
HCM 2000 Volume to Capacity ratio			0.52										
Actuated Cycle Length (s)			90.0		Sum of lost time (s)						18.0		
Intersection Capacity Utilization			50.1%		ICU Level of Service						A		
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/04/2024


























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	333	0	260	4	9	1	292	708	2	1	490	233
Future Volume (vph)	333	0	260	4	9	1	292	708	2	1	490	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.95	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.97	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1553	1504		1822		1770	3538		1770	3539	1583
Flt Permitted	0.95	0.97	1.00		1.00		0.95	1.00		0.36	1.00	1.00
Satd. Flow (perm)	1681	1553	1504		1846		1770	3538		669	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	362	0	283	4	10	1	317	770	2	1	533	253
RTOR Reduction (vph)	0	105	168	0	1	0	0	0	0	0	0	161
Lane Group Flow (vph)	224	112	36	0	14	0	317	772	0	1	533	92
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	15.9	15.9	15.9		1.6		22.8	59.0		31.7	31.7	31.7
Effective Green, g (s)	15.9	15.9	15.9		1.6		22.8	59.0		31.7	31.7	31.7
Actuated g/C Ratio	0.18	0.18	0.18		0.02		0.25	0.66		0.35	0.35	0.35
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	296	274	265		32		448	2319		235	1246	557
v/s Ratio Prot	c0.13	0.07					c0.18	0.22			c0.15	
v/s Ratio Perm			0.02		c0.01					0.00		0.06
v/c Ratio	0.76	0.41	0.14		0.44		0.71	0.33		0.00	0.43	0.17
Uniform Delay, d1	35.2	32.9	31.3		43.8		30.6	6.8		18.9	22.2	20.1
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		0.45	0.44	0.49
Incremental Delay, d2	10.5	1.0	0.2		9.3		5.1	0.4		0.0	0.7	0.4
Delay (s)	45.7	33.9	31.5		53.1		35.6	7.2		8.5	10.4	10.2
Level of Service	D	C	C		D		D	A		A	B	B
Approach Delay (s)		37.2			53.1			15.5			10.4	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
6: Foothill Blvd & Indian Hill Blvd

04/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	780	172	118	876	182	231	362	103	281	540	209
Future Volume (veh/h)	123	780	172	118	876	182	231	362	103	281	540	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	848	187	128	952	198	251	393	112	305	587	227
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	834	184	141	1005	448	257	767	216	336	607	514
Arrive On Green	0.08	0.29	0.29	0.08	0.28	0.28	0.14	0.28	0.28	0.19	0.32	0.32
Sat Flow, veh/h	1781	2894	638	1781	3554	1585	1781	2737	771	1781	1870	1585
Grp Volume(v), veh/h	134	521	514	128	952	198	251	254	251	305	587	227
Grp Sat Flow(s),veh/h/ln	1781	1777	1755	1781	1777	1585	1781	1777	1732	1781	1870	1585
Q Serve(g_s), s	8.2	31.7	31.7	7.8	28.9	11.3	15.4	13.2	13.4	18.4	34.0	12.4
Cycle Q Clear(g_c), s	8.2	31.7	31.7	7.8	28.9	11.3	15.4	13.2	13.4	18.4	34.0	12.4
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	151	512	506	141	1005	448	257	498	485	336	607	514
V/C Ratio(X)	0.89	1.02	1.02	0.91	0.95	0.44	0.97	0.51	0.52	0.91	0.97	0.44
Avail Cap(c_a), veh/h	151	512	506	141	1005	448	257	498	485	387	607	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	49.8	39.2	39.2	50.3	38.7	32.3	46.9	33.2	33.3	43.7	36.6	29.3
Incr Delay (d2), s/veh	42.8	44.0	44.3	49.4	17.2	0.7	48.9	3.7	3.9	18.1	24.4	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	19.5	19.3	5.4	14.5	4.3	10.2	6.1	6.1	9.8	19.3	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.7	83.2	83.5	99.7	55.8	33.0	95.8	36.9	37.2	61.8	60.9	31.3
LnGrp LOS	F	F	F	F	E	C	F	D	D	E	E	C
Approach Vol, veh/h		1169			1278			756			1119	
Approach Delay, s/veh		84.4			56.7			56.6			55.1	
Approach LOS		F			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.3	35.3	13.2	36.2	20.4	40.2	13.8	35.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	23.9	27.7	8.7	31.7	15.9	35.7	9.3	31.1				
Max Q Clear Time (g_c+I1), s	20.4	15.4	9.8	33.7	17.4	36.0	10.2	30.9				
Green Ext Time (p_c), s	0.3	2.3	0.0	0.0	0.0	0.0	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			63.8									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

6: Foothill Blvd & Indian Hill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕	↗	↖	↕		↗	↕	↖
Traffic Volume (veh/h)	105	972	243	127	931	182	285	453	127	170	314	121
Future Volume (veh/h)	105	972	243	127	931	182	285	453	127	170	314	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	1057	264	138	1012	198	310	492	138	185	341	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	1024	254	151	1309	584	315	686	191	218	365	309
Arrive On Green	0.08	0.36	0.36	0.09	0.37	0.37	0.18	0.25	0.25	0.12	0.19	0.19
Sat Flow, veh/h	1781	2820	701	1781	3554	1585	1781	2744	765	1781	1870	1585
Grp Volume(v), veh/h	114	664	657	138	1012	198	310	318	312	185	341	132
Grp Sat Flow(s),veh/h/ln	1781	1777	1744	1781	1777	1585	1781	1777	1733	1781	1870	1585
Q Serve(g_s), s	6.3	36.3	36.3	7.7	25.2	9.0	17.3	16.3	16.5	10.2	17.9	7.3
Cycle Q Clear(g_c), s	6.3	36.3	36.3	7.7	25.2	9.0	17.3	16.3	16.5	10.2	17.9	7.3
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	142	645	633	151	1309	584	315	444	433	218	365	309
V/C Ratio(X)	0.80	1.03	1.04	0.91	0.77	0.34	0.98	0.72	0.72	0.85	0.93	0.43
Avail Cap(c_a), veh/h	169	645	633	151	1309	584	315	444	433	258	365	309
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	45.2	31.8	31.9	45.4	27.9	22.8	41.0	34.3	34.3	43.0	39.6	35.3
Incr Delay (d2), s/veh	20.5	43.1	46.0	47.9	2.9	0.3	46.0	9.5	10.0	16.7	28.7	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	22.2	22.3	5.3	10.6	3.3	11.4	8.0	8.0	5.4	11.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	74.9	77.8	93.2	30.8	23.1	87.0	43.7	44.3	59.7	68.3	38.8
LnGrp LOS	E	F	F	F	C	C	F	D	D	E	E	D
Approach Vol, veh/h		1435			1348			940			658	
Approach Delay, s/veh		75.5			36.1			58.2			60.0	
Approach LOS		E			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	29.5	13.0	40.8	22.2	24.0	12.5	41.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	14.5	22.7	8.5	36.3	17.7	19.5	9.5	35.3				
Max Q Clear Time (g_c+I1), s	12.2	18.5	9.7	38.3	19.3	19.9	8.3	27.2				
Green Ext Time (p_c), s	0.1	1.5	0.0	0.0	0.0	0.0	0.0	4.4				
Intersection Summary												
HCM 6th Ctrl Delay				57.3								
HCM 6th LOS				E								

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗		↔			↔	
Traffic Vol, veh/h	21	1140	80	123	1281	10	1	0	92	0	0	8
Future Vol, veh/h	21	1140	80	123	1281	10	1	0	92	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	1239	87	134	1392	11	1	0	100	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1403	0	0	1326	0	0	2249	2956	620	2326	3032	696
Stage 1	-	-	-	-	-	-	1285	1285	-	1660	1660	-
Stage 2	-	-	-	-	-	-	964	1671	-	666	1372	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	483	-	-	517	-	-	23	14	431	20	13	384
Stage 1	-	-	-	-	-	-	174	233	-	101	153	-
Stage 2	-	-	-	-	-	-	274	151	-	415	212	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	483	-	-	517	-	-	17	10	431	12	9	384
Mov Cap-2 Maneuver	-	-	-	-	-	-	17	10	-	12	9	-
Stage 1	-	-	-	-	-	-	166	222	-	96	113	-
Stage 2	-	-	-	-	-	-	198	112	-	304	202	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.3			19.9			14.6		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	342	483	-	-	517	-	-	384
HCM Lane V/C Ratio	0.296	0.047	-	-	0.259	-	-	0.023
HCM Control Delay (s)	19.9	12.8	-	-	14.4	-	-	14.6
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.2	0.1	-	-	1	-	-	0.1

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	1245	60	74	1252	5	0	0	122	0	0	27
Future Vol, veh/h	21	1245	60	74	1252	5	0	0	122	0	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	1353	65	80	1361	5	0	0	133	0	0	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1366	0	0	1418	0	0	2240	2925	677	2244	2985	681
Stage 1	-	-	-	-	-	-	1399	1399	-	1521	1521	-
Stage 2	-	-	-	-	-	-	841	1526	-	723	1464	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	499	-	-	476	-	-	23	15	395	23	14	393
Stage 1	-	-	-	-	-	-	148	206	-	124	179	-
Stage 2	-	-	-	-	-	-	326	178	-	384	191	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	499	-	-	476	-	-	18	12	395	13	11	393
Mov Cap-2 Maneuver	-	-	-	-	-	-	18	12	-	13	11	-
Stage 1	-	-	-	-	-	-	141	197	-	118	149	-
Stage 2	-	-	-	-	-	-	251	148	-	243	182	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.8			18.7			14.9		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	395	499	-	-	476	-	-	393
HCM Lane V/C Ratio	0.336	0.046	-	-	0.169	-	-	0.075
HCM Control Delay (s)	18.7	12.6	-	-	14.1	-	-	14.9
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0.6	-	-	0.2

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↕			↕	
Traffic Volume (veh/h)	4	1151	82	70	1404	11	11	3	17	12	7	0
Future Volume (veh/h)	4	1151	82	70	1404	11	11	3	17	12	7	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	1251	89	76	1526	12	12	3	18	13	8	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	1862	831	228	1893	15	232	82	278	389	218	0
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	337	3554	1585	408	3614	28	460	252	854	894	668	0
Grp Volume(v), veh/h	4	1251	89	76	750	788	33	0	0	21	0	0
Grp Sat Flow(s),veh/h/ln	337	1777	1585	408	1777	1865	1565	0	0	1562	0	0
Q Serve(g_s), s	0.6	15.5	1.7	10.1	20.9	20.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	21.5	15.5	1.7	25.6	20.9	20.9	0.8	0.0	0.0	0.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.36		0.55	0.62		0.00
Lane Grp Cap(c), veh/h	179	1862	831	228	931	977	592	0	0	606	0	0
V/C Ratio(X)	0.02	0.67	0.11	0.33	0.81	0.81	0.06	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	185	1925	859	235	962	1010	592	0	0	606	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.41	0.41	0.41	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.6	10.5	7.2	19.9	11.8	11.8	13.9	0.0	0.0	13.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.1	0.3	2.1	2.0	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.7	0.4	0.9	6.5	6.8	0.3	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	11.4	7.3	20.2	13.9	13.8	14.1	0.0	0.0	13.9	0.0	0.0
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1344			1614			33				21
Approach Delay, s/veh		11.1			14.1			14.1				13.9
Approach LOS		B			B			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.1		35.9		24.1		35.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		2.8		23.5		2.5		27.6				
Green Ext Time (p_c), s		0.1		5.5		0.0		3.8				
Intersection Summary												
HCM 6th Ctrl Delay				12.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	1533	21	13	1272	13	85	10	83	28	8	0
Future Volume (veh/h)	9	1533	21	13	1272	13	85	10	83	28	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1666	23	14	1383	14	92	11	90	30	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	1883	840	154	1910	19	292	58	229	450	122	0
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.32	0.32	0.32	0.32	0.32	0.00
Sat Flow, veh/h	386	3554	1585	298	3604	36	636	181	714	1074	381	0
Grp Volume(v), veh/h	10	1666	23	14	682	715	193	0	0	39	0	0
Grp Sat Flow(s),veh/h/ln	386	1777	1585	298	1777	1864	1532	0	0	1454	0	0
Q Serve(g_s), s	1.2	24.9	0.4	2.6	17.5	17.6	3.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.8	24.9	0.4	27.5	17.5	17.6	5.6	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.48		0.47	0.77		0.00
Lane Grp Cap(c), veh/h	212	1883	840	154	942	988	579	0	0	571	0	0
V/C Ratio(X)	0.05	0.88	0.03	0.09	0.72	0.72	0.33	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	216	1925	859	158	962	1010	579	0	0	571	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.47	0.47	0.47	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.9	12.5	6.7	24.6	10.8	10.8	15.7	0.0	0.0	14.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	5.2	0.0	0.1	1.3	1.2	1.5	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.1	0.1	0.2	5.8	6.1	2.1	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	17.7	6.7	24.8	12.0	12.0	17.3	0.0	0.0	14.4	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1699			1411			193				39
Approach Delay, s/veh		17.6			12.1			17.3				14.4
Approach LOS		B			B			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.7		36.3		23.7		36.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		7.6		26.9		2.9		29.5				
Green Ext Time (p_c), s		0.8		4.6		0.1		2.3				
Intersection Summary												
HCM 6th Ctrl Delay				15.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↖		↕	↖	↖	↕	↖
Traffic Volume (veh/h)	190	911	10	11	1102	119	5	2	17	147	5	356
Future Volume (veh/h)	190	911	10	11	1102	119	5	2	17	147	5	356
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	990	11	12	1198	129	5	2	18	160	5	387
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	1668	19	26	1244	555	239	85	343	188	696	590
Arrive On Green	0.13	0.46	0.46	0.01	0.35	0.35	0.22	0.22	0.22	0.11	0.37	0.37
Sat Flow, veh/h	1781	3600	40	1781	3554	1585	785	391	1585	1781	1870	1585
Grp Volume(v), veh/h	207	489	512	12	1198	129	7	0	18	160	5	387
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1585	1175	0	1585	1781	1870	1585
Q Serve(g_s), s	10.3	18.3	18.3	0.6	29.8	5.2	0.0	0.0	0.8	7.9	0.2	18.3
Cycle Q Clear(g_c), s	10.3	18.3	18.3	0.6	29.8	5.2	0.3	0.0	0.8	7.9	0.2	18.3
Prop In Lane	1.00		0.02	1.00		1.00	0.71		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	823	863	26	1244	555	323	0	343	188	696	590
V/C Ratio(X)	0.91	0.59	0.59	0.47	0.96	0.23	0.02	0.00	0.05	0.85	0.01	0.66
Avail Cap(c_a), veh/h	228	823	863	99	1244	555	323	0	343	188	696	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.46	0.46	0.46	1.00	0.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	38.7	17.9	17.9	44.0	28.7	20.7	27.7	0.0	27.9	39.6	17.8	23.5
Incr Delay (d2), s/veh	27.9	0.8	0.8	6.0	10.2	0.1	0.1	0.0	0.3	26.2	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	7.0	7.3	0.3	13.4	1.8	0.1	0.0	0.3	4.7	0.1	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.6	18.7	18.6	50.0	38.9	20.8	27.8	0.0	28.2	65.8	17.8	28.4
LnGrp LOS	E	B	B	D	D	C	C	A	C	E	B	C
Approach Vol, veh/h		1208			1339			25			552	
Approach Delay, s/veh		26.9			37.2			28.1			39.1	
Approach LOS		C			D			C			D	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	14.0	24.0	5.8	46.2		38.0	16.0	36.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	19.5	5.0	38.0		33.5	11.5	31.5				
Max Q Clear Time (g_c+I1), s	9.9	2.8	2.6	20.3		20.3	12.3	31.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.8		1.1	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				33.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	1244	11	39	1029	163	16	8	27	122	5	187
Future Volume (veh/h)	183	1244	11	39	1029	163	16	8	27	122	5	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	199	1352	12	42	1118	177	17	9	29	133	5	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	233	1578	14	64	1216	543	263	126	372	164	705	597
Arrive On Green	0.13	0.44	0.44	0.04	0.34	0.34	0.23	0.23	0.23	0.09	0.38	0.38
Sat Flow, veh/h	1781	3609	32	1781	3554	1585	837	537	1585	1781	1870	1585
Grp Volume(v), veh/h	199	665	699	42	1118	177	26	0	29	133	5	203
Grp Sat Flow(s),veh/h/ln	1781	1777	1865	1781	1777	1585	1374	0	1585	1781	1870	1585
Q Serve(g_s), s	9.8	30.3	30.4	2.1	27.2	7.4	0.0	0.0	1.3	6.6	0.2	8.2
Cycle Q Clear(g_c), s	9.8	30.3	30.4	2.1	27.2	7.4	1.0	0.0	1.3	6.6	0.2	8.2
Prop In Lane	1.00		0.02	1.00		1.00	0.65		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	233	777	815	64	1216	543	389	0	372	164	705	597
V/C Ratio(X)	0.85	0.86	0.86	0.65	0.92	0.33	0.07	0.00	0.08	0.81	0.01	0.34
Avail Cap(c_a), veh/h	247	777	815	101	1244	555	389	0	372	168	705	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.37	0.37	0.37	0.68	0.68	0.68	1.00	0.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	38.3	22.8	22.8	42.8	28.4	21.9	26.7	0.0	26.8	40.1	17.5	20.0
Incr Delay (d2), s/veh	10.0	3.8	3.6	7.4	7.9	0.2	0.3	0.0	0.4	21.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	12.2	12.8	1.0	12.0	2.6	0.5	0.0	0.5	3.7	0.1	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	26.5	26.4	50.2	36.3	22.2	27.1	0.0	27.3	61.2	17.5	21.3
LnGrp LOS	D	C	C	D	D	C	C	A	C	E	B	C
Approach Vol, veh/h		1563			1337			55			341	
Approach Delay, s/veh		29.2			34.9			27.2			36.8	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	12.8	25.6	7.8	43.8		38.4	16.3	35.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	19.5	5.1	38.9		32.5	12.5	31.5				
Max Q Clear Time (g_c+I1), s	8.6	3.3	4.1	32.4		10.2	11.8	29.2				
Green Ext Time (p_c), s	0.0	0.1	0.0	4.2		0.6	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay				32.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑↑		↘	↑↑	
Traffic Volume (veh/h)	156	793	127	135	964	45	238	336	167	58	284	98
Future Volume (veh/h)	156	793	127	135	964	45	238	336	167	58	284	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	862	138	147	1048	49	259	365	182	63	309	107
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	1197	534	186	1146	511	696	771	378	297	869	295
Arrive On Green	0.12	0.34	0.34	0.10	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1882	2310	1133	860	2604	884
Grp Volume(v), veh/h	170	862	138	147	1048	49	259	279	268	63	209	207
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	941	1777	1666	860	1777	1711
Q Serve(g_s), s	5.6	12.7	3.8	4.8	17.0	1.3	7.3	7.5	7.6	3.8	5.3	5.5
Cycle Q Clear(g_c), s	5.6	12.7	3.8	4.8	17.0	1.3	12.8	7.5	7.6	11.4	5.3	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		0.52
Lane Grp Cap(c), veh/h	212	1197	534	186	1146	511	696	593	556	297	593	571
V/C Ratio(X)	0.80	0.72	0.26	0.79	0.91	0.10	0.37	0.47	0.48	0.21	0.35	0.36
Avail Cap(c_a), veh/h	223	1197	534	229	1155	515	696	593	556	297	593	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	17.4	14.5	26.2	19.5	14.2	20.0	15.8	15.9	20.4	15.1	15.1
Incr Delay (d2), s/veh	14.6	1.7	0.2	13.9	11.2	0.1	1.5	2.6	2.9	1.6	1.6	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.7	1.2	2.6	7.7	0.4	1.5	3.0	2.9	0.8	2.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	19.1	14.7	40.2	30.7	14.3	21.5	18.4	18.8	22.0	16.7	16.9
LnGrp LOS	D	B	B	D	C	B	C	B	B	C	B	B
Approach Vol, veh/h		1170			1244			806			479	
Approach Delay, s/veh		21.7			31.2			19.5			17.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.5	10.8	24.7		24.5	11.6	23.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	7.7	19.3		19.5	7.5	19.5				
Max Q Clear Time (g_c+I1), s		14.8	6.8	14.7		13.4	7.6	19.0				
Green Ext Time (p_c), s		2.0	0.0	2.4		1.4	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay				23.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 10: Claremont Blvd & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	1178	183	110	837	47	186	266	119	102	258	117
Future Volume (veh/h)	150	1178	183	110	837	47	186	266	119	102	258	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	1280	199	120	910	51	202	289	129	111	280	127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	1416	632	153	1315	586	627	742	323	315	738	326
Arrive On Green	0.11	0.40	0.40	0.09	0.37	0.37	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1898	2409	1049	969	2397	1059
Grp Volume(v), veh/h	163	1280	199	120	910	51	202	211	207	111	206	201
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	949	1777	1681	969	1777	1680
Q Serve(g_s), s	5.8	22.0	5.6	4.3	14.1	1.4	6.1	6.1	6.3	6.6	5.9	6.1
Cycle Q Clear(g_c), s	5.8	22.0	5.6	4.3	14.1	1.4	12.2	6.1	6.3	12.9	5.9	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		0.63
Lane Grp Cap(c), veh/h	204	1416	632	153	1315	586	627	547	518	315	547	517
V/C Ratio(X)	0.80	0.90	0.32	0.79	0.69	0.09	0.32	0.39	0.40	0.35	0.38	0.39
Avail Cap(c_a), veh/h	247	1449	646	178	1315	586	627	547	518	315	547	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.49	0.49	0.49	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	18.4	13.4	29.1	17.3	13.3	22.5	17.7	17.7	22.9	17.6	17.7
Incr Delay (d2), s/veh	7.5	4.3	0.1	17.8	1.6	0.1	1.3	2.0	2.2	3.1	2.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	8.4	1.7	2.4	5.2	0.4	1.3	2.5	2.5	1.6	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.6	22.7	13.6	46.9	18.9	13.4	23.8	19.7	20.0	25.9	19.6	19.9
LnGrp LOS	D	C	B	D	B	B	C	B	B	C	B	B
Approach Vol, veh/h		1642			1081			620			518	
Approach Delay, s/veh		22.9			21.8			21.1			21.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.5	10.1	30.4		24.5	11.9	28.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	6.5	26.5		18.5	9.0	24.0				
Max Q Clear Time (g_c+I1), s		14.2	6.3	24.0		14.9	7.8	16.1				
Green Ext Time (p_c), s		1.4	0.0	1.9		1.0	0.0	3.7				
Intersection Summary												
HCM 6th Ctrl Delay				22.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶↷	↷	↷	↶↷	↷	↷	↶↷	↷↷	↷
Traffic Volume (veh/h)	113	625	274	108	805	165	255	605	123	107	500	73
Future Volume (veh/h)	113	625	274	108	805	165	255	605	123	107	500	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	119	658	288	114	847	174	268	637	129	113	526	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	1011	451	236	973	434	273	1048	467	235	1281	184
Arrive On Green	0.08	0.28	0.28	0.07	0.27	0.27	0.08	0.29	0.29	0.07	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4508	649
Grp Volume(v), veh/h	119	658	288	114	847	174	268	637	129	113	395	208
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1753
Q Serve(g_s), s	4.2	10.3	10.1	2.0	14.4	5.7	4.9	9.8	4.0	2.0	6.0	6.1
Cycle Q Clear(g_c), s	4.2	10.3	10.1	2.0	14.4	5.7	4.9	9.8	4.0	2.0	6.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	141	1011	451	236	973	434	273	1048	467	235	967	498
V/C Ratio(X)	0.85	0.65	0.64	0.48	0.87	0.40	0.98	0.61	0.28	0.48	0.41	0.42
Avail Cap(c_a), veh/h	141	1011	451	273	1010	450	273	1048	467	273	967	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	19.9	19.8	28.4	21.9	18.8	29.1	19.2	17.1	28.4	18.4	18.4
Incr Delay (d2), s/veh	35.4	1.5	3.0	1.5	8.1	0.6	49.5	2.6	1.5	1.5	1.3	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.9	3.6	0.8	6.3	1.9	3.7	3.8	1.5	0.8	2.2	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	21.4	22.8	30.0	30.1	19.4	78.6	21.8	18.6	30.0	19.6	21.0
LnGrp LOS	E	C	C	C	C	B	E	C	B	C	B	C
Approach Vol, veh/h		1065			1135			1034			716	
Approach Delay, s/veh		26.6			28.4			36.1			21.7	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	23.2	8.8	22.5	9.5	22.5	9.5	21.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.0	11.8	4.0	12.3	6.9	8.1	6.2	16.4				
Green Ext Time (p_c), s	0.0	2.3	0.0	2.5	0.0	2.5	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				28.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	1039	255	167	711	306	179	516	143	197	619	71
Future Volume (veh/h)	164	1039	255	167	711	306	179	516	143	197	619	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	1094	268	176	748	322	188	543	151	207	652	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	1000	446	267	997	445	270	1000	446	270	1309	149
Arrive On Green	0.08	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4649	530
Grp Volume(v), veh/h	173	1094	268	176	748	322	188	543	151	207	476	251
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1775
Q Serve(g_s), s	5.0	18.0	9.3	3.2	12.3	11.7	3.4	8.3	4.8	3.8	7.5	7.6
Cycle Q Clear(g_c), s	5.0	18.0	9.3	3.2	12.3	11.7	3.4	8.3	4.8	3.8	7.5	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	139	1000	446	267	997	445	270	1000	446	270	958	500
V/C Ratio(X)	1.24	1.09	0.60	0.66	0.75	0.72	0.70	0.54	0.34	0.77	0.50	0.50
Avail Cap(c_a), veh/h	139	1000	446	270	1000	446	270	1000	446	270	958	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	23.0	19.9	28.7	21.0	20.8	28.7	19.5	18.2	28.9	19.2	19.2
Incr Delay (d2), s/veh	155.4	57.5	2.2	5.7	3.2	5.7	7.5	2.1	2.0	12.4	1.8	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	14.5	3.3	1.4	4.9	4.5	1.6	3.2	1.8	1.9	2.8	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	184.8	80.5	22.1	34.4	24.1	26.5	36.3	21.6	20.3	41.3	21.0	22.8
LnGrp LOS	F	F	C	C	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1535			1246			882			934	
Approach Delay, s/veh		82.0			26.2			24.5			26.0	
Approach LOS		F			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.5	9.4	22.5	9.5	22.5	9.5	22.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.8	10.3	5.2	20.0	5.4	9.6	7.0	14.3				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.0	2.7	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay			44.5									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	575	255	168	893	0	389	0	137	0	0	1
Future Volume (vph)	4	575	255	168	893	0	389	0	137	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.99	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1603	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1603	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	605	268	177	940	0	409	0	144	0	0	1
RTOR Reduction (vph)	0	0	185	0	0	0	0	105	91	0	1	0
Lane Group Flow (vph)	4	605	83	177	940	0	213	105	39	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.8	18.8	18.8	5.1	23.1		18.2	18.2	18.2		0.9	
Effective Green, g (s)	0.8	18.8	18.8	5.1	23.1		18.2	18.2	18.2		0.9	
Actuated g/C Ratio	0.01	0.31	0.31	0.08	0.38		0.30	0.30	0.30		0.01	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	23	1090	487	287	1340		501	478	448		44	
v/s Ratio Prot	0.00	0.17		c0.05	c0.27		c0.13	0.07			c0.00	
v/s Ratio Perm			0.05						0.03			
v/c Ratio	0.17	0.56	0.17	0.62	0.70		0.43	0.22	0.09		0.00	
Uniform Delay, d1	29.8	17.6	15.4	27.0	16.0		17.2	16.1	15.4		29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.6	0.6	0.2	3.9	1.7		2.6	1.1	0.4		0.0	
Delay (s)	33.4	18.2	15.6	30.9	17.7		19.8	17.1	15.8		29.6	
Level of Service	C	B	B	C	B		B	B	B		C	
Approach Delay (s)		17.5			19.8			17.9			29.6	
Approach LOS		B			B			B			C	

Intersection Summary

HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	61.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↗	↖	↖↖	↗↗		↖	↖↖	↖		↗↗	
Traffic Volume (vph)	4	1076	559	282	699	1	553	2	537	0	2	0
Future Volume (vph)	4	1076	559	282	699	1	553	2	537	0	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.92	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3538		1681	1525	1504		3539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3538		1681	1525	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	1133	588	297	736	1	582	2	565	0	2	0
RTOR Reduction (vph)	0	0	245	0	0	0	0	49	260	0	0	0
Lane Group Flow (vph)	4	1133	343	297	737	0	402	336	102	0	2	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2			6	
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	431	425		55	
v/s Ratio Prot	0.00	c0.32		c0.09	c0.21		c0.24	0.22			c0.00	
v/s Ratio Perm			0.22						0.07			
v/c Ratio	0.17	0.94	0.63	1.11	0.51		0.85	0.78	0.24		0.04	
Uniform Delay, d1	31.2	20.4	17.7	29.5	14.3		21.6	21.1	17.7		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.3	13.2	2.4	87.1	0.3		16.8	13.1	1.3		0.3	
Delay (s)	34.5	33.5	20.1	116.6	14.6		38.4	34.2	19.0		31.3	
Level of Service	C	C	C	F	B		D	C	B		C	
Approach Delay (s)		29.0			43.9			30.9			31.3	
Approach LOS		C			D			C			C	

Intersection Summary

HCM 2000 Control Delay	33.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th TWSC
13: 6th St & Indian Hill Blvd

04/05/2024

Intersection												
Int Delay, s/veh	54.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	21	60	72	5	31	4	714	91	50	782	2
Future Vol, veh/h	0	21	60	72	5	31	4	714	91	50	782	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	65	78	5	34	4	776	99	54	850	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1812	1842	851	1837	1794	826	852	0	0	875	0	0
Stage 1	959	959	-	834	834	-	-	-	-	-	-	-
Stage 2	853	883	-	1003	960	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	61	75	360	~ 58	80	372	787	-	-	771	-	-
Stage 1	309	335	-	362	383	-	-	-	-	-	-	-
Stage 2	354	364	-	292	335	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	49	69	360	~ 33	74	372	787	-	-	771	-	-
Mov Cap-2 Maneuver	49	69	-	~ 33	74	-	-	-	-	-	-	-
Stage 1	307	312	-	360	381	-	-	-	-	-	-	-
Stage 2	316	362	-	206	312	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	46	\$ 892.7	0	0.6
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	787	-	-	172	46	771	-
HCM Lane V/C Ratio	0.006	-	-	0.512	2.552	0.07	-
HCM Control Delay (s)	9.6	-	-	46	892.7	10	-
HCM Lane LOS	A	-	-	E	F	B	-
HCM 95th %tile Q(veh)	0	-	-	2.5	12.5	0.2	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	85.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	4	7	5	88	12	115	7	737	71	91	653	1
Future Vol, veh/h	4	7	5	88	12	115	7	737	71	91	653	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	8	5	96	13	125	8	801	77	99	710	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1834	1803	711	1771	1765	840	711	0	0	878	0	0
Stage 1	909	909	-	856	856	-	-	-	-	-	-	-
Stage 2	925	894	-	915	909	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	59	79	433	~ 65	84	365	888	-	-	769	-	-
Stage 1	329	354	-	352	374	-	-	-	-	-	-	-
Stage 2	323	360	-	327	354	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	30	68	433	~ 53	72	365	888	-	-	769	-	-
Mov Cap-2 Maneuver	30	68	-	~ 53	72	-	-	-	-	-	-	-
Stage 1	326	308	-	349	371	-	-	-	-	-	-	-
Stage 2	203	357	-	274	308	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	79.5		\$ 700.1		0.1		1.3	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	65	100	769	-
HCM Lane V/C Ratio	0.009	-	-	0.268	2.337	0.129	-
HCM Control Delay (s)	9.1	-	-	79.5	\$ 700.1	10.4	-
HCM Lane LOS	A	-	-	F	F	B	-
HCM 95th %tile Q(veh)	0	-	-	0.9	20.9	0.4	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	59	212	30	46	132	18	67	217	80	20	159	36
Future Vol, veh/h	59	212	30	46	132	18	67	217	80	20	159	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	230	33	50	143	20	73	236	87	22	173	39
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	18.3	14.3	21.4	14.4
HCM LOS	C	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	20%	23%	9%
Vol Thru, %	60%	70%	67%	74%
Vol Right, %	22%	10%	9%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	364	301	196	215
LT Vol	67	59	46	20
Through Vol	217	212	132	159
RT Vol	80	30	18	36
Lane Flow Rate	396	327	213	234
Geometry Grp	1	1	1	1
Degree of Util (X)	0.679	0.586	0.399	0.425
Departure Headway (Hd)	6.174	6.444	6.744	6.552
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	582	556	530	547
Service Time	4.239	4.513	4.823	4.629
HCM Lane V/C Ratio	0.68	0.588	0.402	0.428
HCM Control Delay	21.4	18.3	14.3	14.4
HCM Lane LOS	C	C	B	B
HCM 95th-tile Q	5.2	3.8	1.9	2.1

Intersection	
Intersection Delay, s/veh	44.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	208	57	99	279	23	72	155	74	21	222	59
Future Vol, veh/h	40	208	57	99	279	23	72	155	74	21	222	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	226	62	108	303	25	78	168	80	23	241	64
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	34.7	65.8	34.4	34.6
HCM LOS	D	F	D	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	13%	25%	7%
Vol Thru, %	51%	68%	70%	74%
Vol Right, %	25%	19%	6%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	301	305	401	302
LT Vol	72	40	99	21
Through Vol	155	208	279	222
RT Vol	74	57	23	59
Lane Flow Rate	327	332	436	328
Geometry Grp	1	1	1	1
Degree of Util (X)	0.766	0.771	0.976	0.768
Departure Headway (Hd)	8.429	8.376	8.065	8.422
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	429	431	449	427
Service Time	6.514	6.462	6.143	6.506
HCM Lane V/C Ratio	0.762	0.77	0.971	0.768
HCM Control Delay	34.4	34.7	65.8	34.6
HCM Lane LOS	D	D	F	D
HCM 95th-tile Q	6.5	6.6	12.1	6.5

Intersection

Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	238	12	13	256	0	13	0	8	1	1	1
Future Vol, veh/h	2	238	12	13	256	0	13	0	8	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	259	13	14	278	0	14	0	9	1	1	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	9.5	8.2	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	62%	1%	5%	33%
Vol Thru, %	0%	94%	95%	33%
Vol Right, %	38%	5%	0%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	252	269	3
LT Vol	13	2	13	1
Through Vol	0	238	256	1
RT Vol	8	12	0	1
Lane Flow Rate	23	274	292	3
Geometry Grp	1	1	1	1
Degree of Util (X)	0.032	0.317	0.341	0.005
Departure Headway (Hd)	5.048	4.171	4.194	5.051
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	713	846	845	712
Service Time	3.05	2.269	2.285	3.054
HCM Lane V/C Ratio	0.032	0.324	0.346	0.004
HCM Control Delay	8.2	9.2	9.5	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.4	1.5	0

Intersection

Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	372	29	22	364	7	16	2	13	4	2	3
Future Vol, veh/h	2	372	29	22	364	7	16	2	13	4	2	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	404	32	24	396	8	17	2	14	4	2	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.7	12.6	9	8.9
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	0%	6%	44%
Vol Thru, %	6%	92%	93%	22%
Vol Right, %	42%	7%	2%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	403	393	9
LT Vol	16	2	22	4
Through Vol	2	372	364	2
RT Vol	13	29	7	3
Lane Flow Rate	34	438	427	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.053	0.542	0.535	0.016
Departure Headway (Hd)	5.652	4.458	4.507	5.744
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	630	810	799	619
Service Time	3.72	2.488	2.537	3.816
HCM Lane V/C Ratio	0.054	0.541	0.534	0.016
HCM Control Delay	9	12.7	12.6	8.9
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.2	3.3	3.2	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↖	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	81	309	20	270	221	124	37	617	139	46	423	44
Future Volume (veh/h)	81	309	20	270	221	124	37	617	139	46	423	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	325	21	284	233	131	39	649	146	48	445	46
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	383	25	361	379	321	316	769	173	221	885	91
Arrive On Green	0.22	0.22	0.22	0.20	0.20	0.20	0.04	0.27	0.27	0.04	0.27	0.27
Sat Flow, veh/h	1781	1738	112	1781	1870	1585	1781	2883	648	1781	3252	335
Grp Volume(v), veh/h	85	0	346	284	233	131	39	400	395	48	242	249
Grp Sat Flow(s),veh/h/ln	1781	0	1850	1781	1870	1585	1781	1777	1754	1781	1777	1810
Q Serve(g_s), s	2.6	0.0	12.1	10.2	7.7	4.9	1.1	14.4	14.4	1.3	7.8	7.8
Cycle Q Clear(g_c), s	2.6	0.0	12.1	10.2	7.7	4.9	1.1	14.4	14.4	1.3	7.8	7.8
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.37	1.00		0.18
Lane Grp Cap(c), veh/h	393	0	408	361	379	321	316	474	468	221	484	493
V/C Ratio(X)	0.22	0.00	0.85	0.79	0.62	0.41	0.12	0.84	0.85	0.22	0.50	0.50
Avail Cap(c_a), veh/h	475	0	493	475	499	423	380	474	468	275	484	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	25.2	25.5	24.5	23.4	17.1	23.4	23.4	18.1	20.7	20.7
Incr Delay (d2), s/veh	0.3	0.0	11.3	6.4	1.6	0.8	0.2	16.6	16.9	0.5	3.7	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	6.0	4.7	3.4	1.8	0.4	7.6	7.5	0.5	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	0.0	36.5	32.0	26.2	24.2	17.3	40.0	40.4	18.6	24.4	24.4
LnGrp LOS	C	A	D	C	C	C	B	D	D	B	C	C
Approach Vol, veh/h		431			648			834			539	
Approach Delay, s/veh		33.6			28.3			39.1			23.9	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	22.5		19.4	7.1	22.9		18.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	3.3	16.4		14.1	3.1	9.8		12.2				
Green Ext Time (p_c), s	0.0	0.8		0.8	0.0	1.7		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				32.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	58	317	28	317	385	50	32	388	306	141	475	86
Future Volume (veh/h)	58	317	28	317	385	50	32	388	306	141	475	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	334	29	334	405	53	34	408	322	148	500	91
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	376	33	423	444	376	257	450	352	231	810	147
Arrive On Green	0.22	0.22	0.22	0.24	0.24	0.24	0.03	0.24	0.24	0.07	0.27	0.27
Sat Flow, veh/h	1781	1697	147	1781	1870	1585	1781	1896	1484	1781	3005	544
Grp Volume(v), veh/h	61	0	363	334	405	53	34	382	348	148	295	296
Grp Sat Flow(s),veh/h/ln	1781	0	1844	1781	1870	1585	1781	1777	1603	1781	1777	1772
Q Serve(g_s), s	2.1	0.0	14.5	13.3	16.0	2.0	1.1	15.8	16.0	4.8	11.0	11.1
Cycle Q Clear(g_c), s	2.1	0.0	14.5	13.3	16.0	2.0	1.1	15.8	16.0	4.8	11.0	11.1
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.93	1.00		0.31
Lane Grp Cap(c), veh/h	395	0	409	423	444	376	257	422	381	231	479	478
V/C Ratio(X)	0.15	0.00	0.89	0.79	0.91	0.14	0.13	0.91	0.91	0.64	0.61	0.62
Avail Cap(c_a), veh/h	423	0	438	423	444	376	314	422	381	231	479	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	28.6	27.1	28.1	22.8	21.0	28.1	28.1	22.1	24.2	24.3
Incr Delay (d2), s/veh	0.2	0.0	18.6	9.7	23.0	0.2	0.2	25.5	28.8	5.8	5.8	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	7.9	6.6	9.7	0.7	0.4	9.2	8.7	2.2	5.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	0.0	47.2	36.9	51.1	23.0	21.3	53.6	56.9	27.8	30.0	30.2
LnGrp LOS	C	A	D	D	D	C	C	D	E	C	C	C
Approach Vol, veh/h		424			792			764			739	
Approach Delay, s/veh		43.9			43.2			53.7			29.7	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5		21.3	7.1	24.9		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	6.8	18.0		16.5	3.1	13.1		18.0				
Green Ext Time (p_c), s	0.0	0.0		0.4	0.0	1.5		0.0				

Intersection Summary												
HCM 6th Ctrl Delay				42.6								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↖↗↘		↗	↖↗↘	
Traffic Volume (veh/h)	121	319	50	197	409	118	50	698	72	33	821	72
Future Volume (veh/h)	121	319	50	197	409	118	50	698	72	33	821	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	336	53	207	431	124	53	735	76	35	864	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	821	128	149	499	423	169	1470	151	66	1436	126
Arrive On Green	0.08	0.27	0.27	0.08	0.27	0.27	0.05	0.31	0.31	0.04	0.30	0.30
Sat Flow, veh/h	1781	3080	481	1781	1870	1585	3456	4704	483	1781	4780	419
Grp Volume(v), veh/h	127	192	197	207	431	124	53	530	281	35	614	326
Grp Sat Flow(s),veh/h/ln	1781	1777	1784	1781	1870	1585	1728	1702	1783	1781	1702	1795
Q Serve(g_s), s	4.2	5.3	5.4	5.0	13.2	3.7	0.9	7.6	7.7	1.2	9.2	9.3
Cycle Q Clear(g_c), s	4.2	5.3	5.4	5.0	13.2	3.7	0.9	7.6	7.7	1.2	9.2	9.3
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.27	1.00		0.23
Lane Grp Cap(c), veh/h	149	474	476	149	499	423	169	1064	557	66	1023	539
V/C Ratio(X)	0.85	0.41	0.41	1.39	0.86	0.29	0.31	0.50	0.50	0.53	0.60	0.60
Avail Cap(c_a), veh/h	149	534	536	149	562	476	288	1064	557	149	1023	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	18.1	18.1	27.5	20.9	17.5	27.5	16.8	16.8	28.3	17.9	17.9
Incr Delay (d2), s/veh	35.5	0.6	0.6	212.2	12.2	0.4	1.0	1.7	3.2	6.6	2.6	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.9	2.0	10.7	6.5	1.2	0.4	2.7	3.1	0.6	3.4	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	18.6	18.7	239.7	33.1	17.9	28.6	18.4	20.0	34.9	20.5	22.8
LnGrp LOS	E	B	B	F	C	B	C	B	C	C	C	C
Approach Vol, veh/h		516			762			864			975	
Approach Delay, s/veh		29.5			86.7			19.6			21.8	
Approach LOS		C			F			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	23.2	9.5	20.5	7.4	22.5	9.5	20.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.2	9.7	7.0	7.4	2.9	11.3	6.2	15.2				
Green Ext Time (p_c), s	0.0	3.0	0.0	1.5	0.0	3.0	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				38.3								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary

17: Monte Vista Ave & Arrow Rt

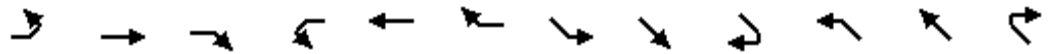
04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↖↗↘		↗	↗↘	
Traffic Volume (veh/h)	96	578	53	119	449	69	85	640	210	103	748	170
Future Volume (veh/h)	96	578	53	119	449	69	85	640	210	103	748	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	608	56	125	473	73	89	674	221	108	787	179
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	896	82	141	522	442	216	1091	352	138	1251	282
Arrive On Green	0.07	0.27	0.27	0.08	0.28	0.28	0.06	0.29	0.29	0.08	0.30	0.30
Sat Flow, veh/h	1781	3290	303	1781	1870	1585	3456	3820	1233	1781	4166	939
Grp Volume(v), veh/h	101	328	336	125	473	73	89	599	296	108	642	324
Grp Sat Flow(s),veh/h/ln	1781	1777	1816	1781	1870	1585	1728	1702	1648	1781	1702	1701
Q Serve(g_s), s	3.5	10.4	10.4	4.4	15.4	2.2	1.6	9.6	9.8	3.8	10.3	10.4
Cycle Q Clear(g_c), s	3.5	10.4	10.4	4.4	15.4	2.2	1.6	9.6	9.8	3.8	10.3	10.4
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.75	1.00		0.55
Lane Grp Cap(c), veh/h	129	484	494	141	522	442	216	972	471	138	1022	511
V/C Ratio(X)	0.78	0.68	0.68	0.88	0.91	0.17	0.41	0.62	0.63	0.78	0.63	0.63
Avail Cap(c_a), veh/h	141	507	518	141	534	453	274	972	471	141	1022	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	20.5	20.5	28.7	21.9	17.2	28.4	19.5	19.6	28.6	19.0	19.1
Incr Delay (d2), s/veh	22.4	3.4	3.4	43.6	18.9	0.2	1.2	2.9	6.2	23.8	2.9	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.1	4.2	3.4	8.5	0.7	0.6	3.7	4.0	2.4	3.8	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	23.9	23.9	72.3	40.9	17.4	29.7	22.5	25.8	52.4	21.9	25.0
LnGrp LOS	D	C	C	E	D	B	C	C	C	D	C	C
Approach Vol, veh/h		765			671			984			1074	
Approach Delay, s/veh		27.5			44.2			24.1			25.9	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	22.5	9.5	21.7	8.4	23.4	9.1	22.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.8	11.8	6.4	12.4	3.6	12.4	5.5	17.4				
Green Ext Time (p_c), s	0.0	2.8	0.0	1.8	0.0	2.7	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay				29.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

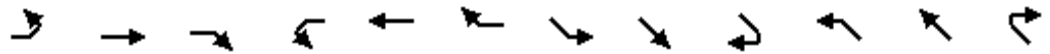
04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	59	54	47	20	54	27	45	813	68	36	679	21
Future Volume (veh/h)	59	54	47	20	54	27	45	813	68	36	679	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	59	51	22	59	29	49	884	74	39	738	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	49	410	65	135	410	78	955	809	68	910	28
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.04	0.51	0.51	0.04	0.50	0.50
Sat Flow, veh/h	0	190	1585	0	523	1585	1781	1870	1585	1781	1804	56
Grp Volume(v), veh/h	123	0	51	81	0	29	49	884	74	39	0	761
Grp Sat Flow(s),veh/h/ln	190	0	1585	523	0	1585	1781	1870	1585	1781	0	1860
Q Serve(g_s), s	0.0	0.0	1.7	0.0	0.0	1.0	1.9	30.7	1.7	1.5	0.0	24.0
Cycle Q Clear(g_c), s	18.1	0.0	1.7	18.1	0.0	1.0	1.9	30.7	1.7	1.5	0.0	24.0
Prop In Lane	0.52		1.00	0.27		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	127	0	410	201	0	410	78	955	809	68	0	939
V/C Ratio(X)	0.97	0.00	0.12	0.40	0.00	0.07	0.63	0.93	0.09	0.58	0.00	0.81
Avail Cap(c_a), veh/h	127	0	410	201	0	410	130	955	809	127	0	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.1	0.0	19.9	21.3	0.0	19.6	32.9	15.9	8.8	33.1	0.0	14.5
Incr Delay (d2), s/veh	68.9	0.0	0.1	1.3	0.0	0.1	8.0	15.9	0.2	7.5	0.0	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	0.6	1.1	0.0	0.4	1.0	15.7	0.6	0.8	0.0	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.0	0.0	20.0	22.6	0.0	19.7	40.9	31.8	9.0	40.7	0.0	22.1
LnGrp LOS	F	A	C	C	A	B	D	C	A	D	A	C
Approach Vol, veh/h		174			110			1007				800
Approach Delay, s/veh		74.4			21.9			30.6				23.0
Approach LOS		E			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	39.8		22.6	7.2	40.2		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	33.3		18.1	5.0	33.4		18.1				
Max Q Clear Time (g_c+I1), s	3.9	26.0		20.1	3.5	32.7		20.1				
Green Ext Time (p_c), s	0.0	3.2		0.0	0.0	0.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			30.9									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	48	40	49	46	37	91	26	666	47	19	712	21
Future Volume (veh/h)	48	40	49	46	37	91	26	666	47	19	712	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	43	53	50	40	99	28	724	51	21	774	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	44	408	80	43	408	53	984	834	43	940	28
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.03	0.53	0.53	0.02	0.52	0.52
Sat Flow, veh/h	0	172	1585	0	166	1585	1781	1870	1585	1781	1807	54
Grp Volume(v), veh/h	95	0	53	90	0	99	28	724	51	21	0	797
Grp Sat Flow(s),veh/h/ln	172	0	1585	166	0	1585	1781	1870	1585	1781	0	1861
Q Serve(g_s), s	0.0	0.0	1.8	0.0	0.0	3.5	1.1	21.0	1.1	0.8	0.0	25.2
Cycle Q Clear(g_c), s	18.0	0.0	1.8	18.0	0.0	3.5	1.1	21.0	1.1	0.8	0.0	25.2
Prop In Lane	0.55		1.00	0.56		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	124	0	408	123	0	408	53	984	834	43	0	968
V/C Ratio(X)	0.77	0.00	0.13	0.73	0.00	0.24	0.52	0.74	0.06	0.49	0.00	0.82
Avail Cap(c_a), veh/h	124	0	408	123	0	408	130	984	834	127	0	968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.0	0.0	20.0	26.8	0.0	20.6	33.5	12.8	8.1	33.7	0.0	14.1
Incr Delay (d2), s/veh	24.7	0.0	0.1	20.1	0.0	0.3	7.7	4.9	0.1	8.5	0.0	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.7	2.2	0.0	1.3	0.6	9.1	0.4	0.4	0.0	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	0.0	20.1	46.9	0.0	20.9	41.2	17.7	8.3	42.3	0.0	22.0
LnGrp LOS	D	A	C	D	A	C	D	B	A	D	A	C
Approach Vol, veh/h		148			189			803				818
Approach Delay, s/veh		40.4			33.3			17.9				22.5
Approach LOS		D			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	40.9		22.5	6.2	41.3		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	33.4		18.0	5.0	33.5		18.0				
Max Q Clear Time (g_c+I1), s	3.1	27.2		20.0	2.8	23.0		20.0				
Green Ext Time (p_c), s	0.0	3.0		0.0	0.0	4.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			23.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	27	37	128	60	166	58	762	213	92	650	27
Future Volume (veh/h)	9	27	37	128	60	166	58	762	213	92	650	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	29	40	139	65	180	63	828	232	100	707	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	363	307	361	85	235	373	960	814	308	940	39
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.05	0.51	0.51	0.07	0.53	0.53
Sat Flow, veh/h	1135	1870	1585	1332	438	1214	1781	1870	1585	1781	1784	73
Grp Volume(v), veh/h	10	29	40	139	0	245	63	828	232	100	0	736
Grp Sat Flow(s),veh/h/ln	1135	1870	1585	1332	0	1652	1781	1870	1585	1781	0	1857
Q Serve(g_s), s	0.5	0.8	1.3	5.7	0.0	8.4	1.0	23.2	5.0	1.5	0.0	18.6
Cycle Q Clear(g_c), s	8.9	0.8	1.3	6.5	0.0	8.4	1.0	23.2	5.0	1.5	0.0	18.6
Prop In Lane	1.00		1.00	1.00		0.73	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	181	363	307	361	0	320	373	960	814	308	0	978
V/C Ratio(X)	0.06	0.08	0.13	0.38	0.00	0.76	0.17	0.86	0.29	0.32	0.00	0.75
Avail Cap(c_a), veh/h	301	561	476	503	0	496	427	960	814	336	0	978
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.81	0.81	0.81	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	19.8	20.0	22.5	0.0	22.9	8.7	12.7	8.3	11.1	0.0	11.1
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.7	0.0	3.8	0.2	8.4	0.7	0.6	0.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	0.5	1.8	0.0	3.4	0.3	10.0	1.6	0.5	0.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	19.9	20.2	23.1	0.0	26.7	8.9	21.1	9.0	11.7	0.0	16.5
LnGrp LOS	C	B	C	C	A	C	A	C	A	B	A	B
Approach Vol, veh/h		79			384			1123				836
Approach Delay, s/veh		21.0			25.4			17.9				15.9
Approach LOS		C			C			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	35.3		16.1	7.8	36.1		16.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	3.5	25.2		10.9	3.0	20.6		10.4				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	1.4		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				18.5								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	85	88	133	83	171	103	599	210	140	663	86
Future Volume (veh/h)	29	85	88	133	83	171	103	599	210	140	663	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	92	96	145	90	186	112	651	228	152	721	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	399	338	302	116	240	327	1015	860	398	887	114
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.06	0.54	0.54	0.06	0.55	0.55
Sat Flow, veh/h	1103	1870	1585	1195	544	1124	1781	1870	1585	1781	1623	209
Grp Volume(v), veh/h	32	92	96	145	0	276	112	651	228	152	0	814
Grp Sat Flow(s),veh/h/ln	1103	1870	1585	1195	0	1668	1781	1870	1585	1781	0	1833
Q Serve(g_s), s	2.1	3.1	3.8	8.6	0.0	11.7	2.0	18.3	5.8	2.8	0.0	27.2
Cycle Q Clear(g_c), s	13.8	3.1	3.8	11.6	0.0	11.7	2.0	18.3	5.8	2.8	0.0	27.2
Prop In Lane	1.00		1.00	1.00		0.67	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	159	399	338	302	0	356	327	1015	860	398	0	1002
V/C Ratio(X)	0.20	0.23	0.28	0.48	0.00	0.78	0.34	0.64	0.26	0.38	0.00	0.81
Avail Cap(c_a), veh/h	189	449	380	334	0	400	341	1015	860	410	0	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.91	0.91	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.3	24.4	24.7	29.2	0.0	27.8	12.1	12.0	9.2	9.3	0.0	13.9
Incr Delay (d2), s/veh	0.6	0.3	0.5	1.2	0.0	8.3	0.6	2.8	0.7	0.6	0.0	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.3	1.4	2.5	0.0	5.4	0.7	7.4	1.9	1.0	0.0	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	24.7	25.2	30.4	0.0	36.1	12.7	14.9	9.8	9.9	0.0	21.1
LnGrp LOS	C	C	C	C	A	D	B	B	A	A	A	C
Approach Vol, veh/h		220			421			991				966
Approach Delay, s/veh		26.4			34.1			13.5				19.3
Approach LOS		C			C			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	45.2		20.5	9.0	45.5		20.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.3	38.2		18.0	5.1	38.4		18.0				
Max Q Clear Time (g_c+I1), s	4.8	20.3		15.8	4.0	29.2		13.7				
Green Ext Time (p_c), s	0.0	5.1		0.2	0.0	4.2		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				20.1								
HCM 6th LOS				C								

Intersection	
Intersection Delay, s/veh	20.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	55	184	48	45	298	137	30	235	28	42	168	18
Future Vol, veh/h	55	184	48	45	298	137	30	235	28	42	168	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	200	52	49	324	149	33	255	30	46	183	20
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	15.2	20.3	25.7	20.2
HCM LOS	C	C	D	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	10%	100%	0%	0%	100%	0%	0%	18%
Vol Thru, %	80%	0%	100%	0%	0%	100%	0%	74%
Vol Right, %	10%	0%	0%	100%	0%	0%	100%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	293	55	184	48	45	298	137	228
LT Vol	30	55	0	0	45	0	0	42
Through Vol	235	0	184	0	0	298	0	168
RT Vol	28	0	0	48	0	0	137	18
Lane Flow Rate	318	60	200	52	49	324	149	248
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.683	0.142	0.442	0.105	0.11	0.681	0.283	0.549
Departure Headway (Hd)	7.721	8.578	7.956	7.225	8.089	7.57	6.842	7.977
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	465	421	450	493	441	476	521	449
Service Time	5.51	6.278	5.755	5.024	5.881	5.361	4.633	5.774
HCM Lane V/C Ratio	0.684	0.143	0.444	0.105	0.111	0.681	0.286	0.552
HCM Control Delay	25.7	12.7	17	10.9	11.9	25.2	12.3	20.2
HCM Lane LOS	D	B	C	B	B	D	B	C
HCM 95th-tile Q	5.1	0.5	2.2	0.3	0.4	5	1.2	3.2

Intersection	
Intersection Delay, s/veh	81.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	49	336	76	71	274	91	45	139	88	116	313	57
Future Vol, veh/h	49	336	76	71	274	91	45	139	88	116	313	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	365	83	77	298	99	49	151	96	126	340	62
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	45.9	29.2	36.6	186.6
HCM LOS	E	D	E	F

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	17%	100%	0%	0%	100%	0%	0%	24%
Vol Thru, %	51%	0%	100%	0%	0%	100%	0%	64%
Vol Right, %	32%	0%	0%	100%	0%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	272	49	336	76	71	274	91	486
LT Vol	45	49	0	0	71	0	0	116
Through Vol	139	0	336	0	0	274	0	313
RT Vol	88	0	0	76	0	0	91	57
Lane Flow Rate	296	53	365	83	77	298	99	528
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.743	0.139	0.901	0.188	0.204	0.747	0.229	1.32
Departure Headway (Hd)	9.977	10.452	9.917	9.167	10.648	10.112	9.361	8.996
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	367	345	369	394	340	360	386	407
Service Time	7.677	8.152	7.617	6.867	8.348	7.812	7.061	6.77
HCM Lane V/C Ratio	0.807	0.154	0.989	0.211	0.226	0.828	0.256	1.297
HCM Control Delay	36.6	14.8	57.6	14	16.1	37.4	14.8	186.6
HCM Lane LOS	E	B	F	B	C	E	B	F
HCM 95th-tile Q	5.8	0.5	9.1	0.7	0.8	5.8	0.9	24

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	0	126	8	0	1	399	711	7	1	452	126
Future Volume (veh/h)	65	0	126	8	0	1	399	711	7	1	452	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	0	137	9	0	1	434	773	8	1	491	137
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	201	171	22	0	19	634	2685	28	539	2648	1181
Arrive On Green	0.11	0.00	0.11	0.01	0.00	0.01	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	798	3603	37	692	3554	1585
Grp Volume(v), veh/h	71	0	137	9	0	1	434	381	400	1	491	137
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	798	1777	1864	692	1777	1585
Q Serve(g_s), s	3.7	0.0	8.4	0.5	0.0	0.1	35.3	7.0	7.0	0.0	4.1	2.4
Cycle Q Clear(g_c), s	3.7	0.0	8.4	0.5	0.0	0.1	39.4	7.0	7.0	7.0	4.1	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	192	201	171	22	0	19	634	1324	1389	539	2648	1181
V/C Ratio(X)	0.37	0.00	0.80	0.42	0.00	0.05	0.68	0.29	0.29	0.00	0.19	0.12
Avail Cap(c_a), veh/h	321	337	285	321	0	285	634	1324	1389	539	2648	1181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	41.5	0.0	43.6	49.0	0.0	48.8	9.6	4.1	4.1	5.3	3.8	3.6
Incr Delay (d2), s/veh	1.2	0.0	8.5	12.3	0.0	1.1	5.9	0.5	0.5	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.7	0.3	0.0	0.0	5.7	2.0	2.1	0.0	1.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	0.0	52.0	61.3	0.0	49.9	15.5	4.7	4.7	5.3	3.9	3.7
LnGrp LOS	D	A	D	E	A	D	B	A	A	A	A	A
Approach Vol, veh/h		208			10			1215			629	
Approach Delay, s/veh		48.8			60.2			8.5			3.8	
Approach LOS		D			E			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		79.0		15.3		79.0		5.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		50.5		18.0		50.5		18.0				
Max Q Clear Time (g_c+I1), s		41.4		10.4		9.0		2.5				
Green Ext Time (p_c), s		4.9		0.4		3.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				11.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	5	314	4	0	1	147	420	7	2	579	225
Future Volume (veh/h)	251	5	314	4	0	1	147	420	7	2	579	225
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	273	5	341	4	0	1	160	457	8	2	629	245
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	431	453	384	12	0	10	397	1996	35	561	1985	885
Arrive On Green	0.24	0.24	0.24	0.01	0.00	0.01	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	634	3573	63	928	3554	1585
Grp Volume(v), veh/h	273	5	341	4	0	1	160	227	238	2	629	245
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	634	1777	1859	928	1777	1585
Q Serve(g_s), s	9.6	0.1	14.5	0.2	0.0	0.0	12.7	4.5	4.5	0.1	6.6	5.6
Cycle Q Clear(g_c), s	9.6	0.1	14.5	0.2	0.0	0.0	19.3	4.5	4.5	4.6	6.6	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	431	453	384	12	0	10	397	992	1038	561	1985	885
V/C Ratio(X)	0.63	0.01	0.89	0.34	0.00	0.10	0.40	0.23	0.23	0.00	0.32	0.28
Avail Cap(c_a), veh/h	458	481	408	458	0	408	397	992	1038	561	1985	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	23.8	20.2	25.6	34.6	0.0	34.6	13.5	7.8	7.8	9.0	8.3	8.1
Incr Delay (d2), s/veh	2.6	0.0	20.0	16.1	0.0	3.9	3.0	0.5	0.5	0.0	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.1	7.3	0.1	0.0	0.0	1.8	1.5	1.6	0.0	2.1	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	20.2	45.6	50.7	0.0	38.4	16.5	8.4	8.3	9.0	8.6	8.6
LnGrp LOS	C	C	D	D	A	D	B	A	A	A	A	A
Approach Vol, veh/h		619			5			625			876	
Approach Delay, s/veh		36.9			48.2			10.4			8.6	
Approach LOS		D			D			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.6		21.4		43.6		5.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		18.0		20.5		18.0				
Max Q Clear Time (g_c+I1), s		21.3		16.5		8.6		2.2				
Green Ext Time (p_c), s		0.0		0.4		3.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 22: Indian Hill Blvd & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	186	567	229	159	928	140	223	717	162	166	725	155
Future Volume (veh/h)	186	567	229	159	928	140	223	717	162	166	725	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	616	249	173	1009	152	242	779	176	180	788	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	1421	634	381	1421	634	264	1421	634	320	1166	249
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	559	3554	1585	807	3554	1585	587	3554	1585	693	2914	621
Grp Volume(v), veh/h	202	616	249	173	1009	152	242	779	176	180	480	476
Grp Sat Flow(s),veh/h/ln	559	1777	1585	807	1777	1585	587	1777	1585	693	1777	1759
Q Serve(g_s), s	7.3	5.7	5.0	8.9	10.7	2.9	8.0	7.6	3.4	10.4	10.0	10.0
Cycle Q Clear(g_c), s	18.0	5.7	5.0	14.6	10.7	2.9	18.0	7.6	3.4	18.0	10.0	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	251	1421	634	381	1421	634	264	1421	634	320	711	703
V/C Ratio(X)	0.81	0.43	0.39	0.45	0.71	0.24	0.92	0.55	0.28	0.56	0.68	0.68
Avail Cap(c_a), veh/h	251	1421	634	381	1421	634	264	1421	634	320	711	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	20.9	9.8	9.6	15.1	11.3	9.0	20.8	10.4	9.1	17.9	11.1	11.1
Incr Delay (d2), s/veh	17.4	0.2	0.4	0.6	1.1	0.1	37.3	1.5	1.1	4.8	3.6	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.8	1.4	1.4	3.5	0.8	5.1	2.6	1.1	2.1	3.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	10.0	10.0	15.7	12.4	9.1	58.1	11.9	10.2	22.7	14.7	14.7
LnGrp LOS	D	B	B	B	B	A	E	B	B	C	B	B
Approach Vol, veh/h		1067			1334			1197			1136	
Approach Delay, s/veh		15.3			12.5			21.0			16.0	
Approach LOS		B			B			C			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		20.0		20.0		20.0		16.6				
Green Ext Time (p_c), s		0.0		0.0		0.0		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				16.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

22: Indian Hill Blvd & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	1056	184	201	632	160	196	755	167	178	692	135
Future Volume (veh/h)	218	1056	184	201	632	160	196	755	167	178	692	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	237	1148	200	218	687	174	213	821	182	193	752	147
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1421	634	216	1421	634	281	1421	634	306	1185	232
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	755	3554	1585	490	3554	1585	619	3554	1585	666	2964	579
Grp Volume(v), veh/h	237	1148	200	218	687	174	213	821	182	193	451	448
Grp Sat Flow(s),veh/h/ln	755	1777	1585	490	1777	1585	619	1777	1585	666	1777	1766
Q Serve(g_s), s	11.5	12.9	3.9	5.1	6.5	3.3	8.8	8.1	3.5	9.9	9.2	9.2
Cycle Q Clear(g_c), s	18.0	12.9	3.9	18.0	6.5	3.3	18.0	8.1	3.5	18.0	9.2	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	353	1421	634	216	1421	634	281	1421	634	306	711	706
V/C Ratio(X)	0.67	0.81	0.32	1.01	0.48	0.27	0.76	0.58	0.29	0.63	0.63	0.63
Avail Cap(c_a), veh/h	353	1421	634	216	1421	634	281	1421	634	306	711	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00	0.66	0.66	0.66
Uniform Delay (d), s/veh	17.8	12.0	9.3	21.8	10.0	9.1	20.0	10.5	9.2	18.7	10.9	10.9
Incr Delay (d2), s/veh	4.8	3.6	0.3	60.6	0.2	0.2	17.2	1.7	1.1	6.4	2.8	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.6	1.1	5.7	2.0	0.9	3.4	2.8	1.1	2.4	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	15.5	9.6	82.4	10.3	9.3	37.2	12.2	10.3	25.1	13.7	13.7
LnGrp LOS	C	B	A	F	B	A	D	B	B	C	B	B
Approach Vol, veh/h		1585			1079			1216			1092	
Approach Delay, s/veh		15.8			24.7			16.3			15.7	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		20.0		20.0		20.0		20.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	790	50	56	1087	79	62	125	43	119	93	65
Future Volume (veh/h)	54	790	50	56	1087	79	62	125	43	119	93	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	859	54	61	1182	86	67	136	47	129	101	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	1648	104	310	1630	118	196	373	114	558	682	578
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	437	3395	213	611	3359	244	330	1024	313	1201	1870	1585
Grp Volume(v), veh/h	59	450	463	61	625	643	250	0	0	129	101	71
Grp Sat Flow(s),veh/h/ln	437	1777	1832	611	1777	1826	1667	0	0	1201	1870	1585
Q Serve(g_s), s	7.4	10.5	10.5	4.6	16.7	16.8	0.9	0.0	0.0	0.0	2.2	1.8
Cycle Q Clear(g_c), s	24.2	10.5	10.5	15.0	16.7	16.8	6.2	0.0	0.0	4.6	2.2	1.8
Prop In Lane	1.00		0.12	1.00		0.13	0.27		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	210	862	889	310	862	886	684	0	0	558	682	578
V/C Ratio(X)	0.28	0.52	0.52	0.20	0.72	0.73	0.37	0.00	0.00	0.23	0.15	0.12
Avail Cap(c_a), veh/h	227	933	962	334	933	959	684	0	0	558	682	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.88	0.88	0.88	0.18	0.18	0.18	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	10.6	10.6	15.8	12.3	12.3	14.1	0.0	0.0	13.6	12.8	12.7
Incr Delay (d2), s/veh	0.6	0.4	0.4	0.1	0.5	0.5	1.5	0.0	0.0	1.0	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.5	3.6	0.6	5.6	5.8	2.5	0.0	0.0	1.3	0.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	11.1	11.1	15.9	12.7	12.7	15.6	0.0	0.0	14.5	13.3	13.1
LnGrp LOS	C	B	B	B	B	B	B	A	A	B	B	B
Approach Vol, veh/h		972			1329			250			301	
Approach Delay, s/veh		11.8			12.9			15.6			13.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.4		33.6		26.4		33.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		8.2		26.2		6.6		18.8				
Green Ext Time (p_c), s		1.1		2.9		1.0		7.3				
Intersection Summary												
HCM 6th Ctrl Delay				12.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕		↖	↗	↖
Traffic Volume (veh/h)	66	1212	44	37	835	79	49	50	56	129	122	111
Future Volume (veh/h)	66	1212	44	37	835	79	49	50	56	129	122	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	1317	48	40	908	86	53	54	61	140	133	121
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	285	1702	62	190	1597	151	220	224	208	613	679	576
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	567	3497	127	398	3281	311	389	616	573	1277	1870	1585
Grp Volume(v), veh/h	72	669	696	40	492	502	168	0	0	140	133	121
Grp Sat Flow(s),veh/h/ln	567	1777	1847	398	1777	1814	1577	0	0	1277	1870	1585
Q Serve(g_s), s	6.2	18.6	18.6	5.5	11.8	11.8	0.0	0.0	0.0	0.0	2.9	3.2
Cycle Q Clear(g_c), s	18.0	18.6	18.6	24.1	11.8	11.8	4.0	0.0	0.0	3.4	2.9	3.2
Prop In Lane	1.00		0.07	1.00		0.17	0.32		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	285	865	899	190	865	883	652	0	0	613	679	576
V/C Ratio(X)	0.25	0.77	0.77	0.21	0.57	0.57	0.26	0.00	0.00	0.23	0.20	0.21
Avail Cap(c_a), veh/h	306	933	970	205	933	953	652	0	0	613	679	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.74	0.74	0.74	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	12.7	12.7	22.6	10.9	10.9	13.5	0.0	0.0	13.3	13.1	13.2
Incr Delay (d2), s/veh	0.3	2.1	2.1	0.4	0.5	0.5	1.0	0.0	0.0	0.9	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.6	6.8	0.5	4.0	4.1	1.6	0.0	0.0	1.3	1.2	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.6	14.8	14.7	23.0	11.4	11.4	14.4	0.0	0.0	14.1	13.7	14.0
LnGrp LOS	B	B	B	C	B	B	B	A	A	B	B	B
Approach Vol, veh/h		1437			1034			168			394	
Approach Delay, s/veh		14.9			11.9			14.4			14.0	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.3		33.7		26.3		33.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		6.0		20.6		5.4		26.1				
Green Ext Time (p_c), s		0.7		7.0		1.4		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				13.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	316	547	23	49	964	317	110	435	36	117	248	255
Future Volume (veh/h)	316	547	23	49	964	317	110	435	36	117	248	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	343	595	25	53	1048	345	120	473	39	127	270	277
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	351	1869	78	68	999	325	139	595	49	144	340	288
Arrive On Green	0.20	0.54	0.54	0.04	0.38	0.38	0.08	0.18	0.18	0.08	0.18	0.18
Sat Flow, veh/h	1781	3475	146	1781	2634	858	1781	3325	273	1781	1870	1585
Grp Volume(v), veh/h	343	304	316	53	703	690	120	252	260	127	270	277
Grp Sat Flow(s),veh/h/ln	1781	1777	1844	1781	1777	1716	1781	1777	1821	1781	1870	1585
Q Serve(g_s), s	21.1	10.5	10.5	3.2	41.7	41.7	7.3	14.9	15.0	7.8	15.2	19.1
Cycle Q Clear(g_c), s	21.1	10.5	10.5	3.2	41.7	41.7	7.3	14.9	15.0	7.8	15.2	19.1
Prop In Lane	1.00		0.08	1.00		0.50	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	351	956	992	68	674	650	139	318	326	144	340	288
V/C Ratio(X)	0.98	0.32	0.32	0.78	1.04	1.06	0.86	0.79	0.80	0.88	0.79	0.96
Avail Cap(c_a), veh/h	351	956	992	143	674	650	139	318	326	144	340	288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	14.2	14.2	52.4	34.1	34.2	50.1	43.2	43.2	50.0	43.0	44.6
Incr Delay (d2), s/veh	37.9	0.2	0.2	16.8	46.7	52.4	38.8	18.1	18.1	42.1	17.2	44.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	3.9	4.1	1.7	25.7	25.8	4.7	8.0	8.3	5.2	8.7	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.8	14.3	14.3	69.2	80.9	86.5	88.9	61.3	61.3	92.2	60.2	88.6
LnGrp LOS	F	B	B	E	F	F	F	E	E	F	E	F
Approach Vol, veh/h		963			1446			632			674	
Approach Delay, s/veh		38.3			83.1			66.5			77.9	
Approach LOS		D			F			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	24.2	8.7	63.7	13.1	24.5	26.2	46.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.9	19.7	8.8	54.6	8.6	20.0	21.7	41.7				
Max Q Clear Time (g_c+I1), s	9.8	17.0	5.2	12.5	9.3	21.1	23.1	43.7				
Green Ext Time (p_c), s	0.0	0.8	0.0	3.7	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				67.8								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↗↘		↗	↗	↗
Traffic Volume (veh/h)	203	1193	60	71	636	127	80	252	66	247	418	287
Future Volume (veh/h)	203	1193	60	71	636	127	80	252	66	247	418	287
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	221	1297	65	77	691	138	87	274	72	268	454	312
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1290	65	99	859	171	109	594	153	281	578	490
Arrive On Green	0.14	0.37	0.37	0.06	0.29	0.29	0.06	0.21	0.21	0.16	0.31	0.31
Sat Flow, veh/h	1781	3444	172	1781	2952	589	1781	2796	721	1781	1870	1585
Grp Volume(v), veh/h	221	668	694	77	416	413	87	172	174	268	454	312
Grp Sat Flow(s),veh/h/ln	1781	1777	1839	1781	1777	1764	1781	1777	1741	1781	1870	1585
Q Serve(g_s), s	11.0	33.7	33.7	3.8	19.5	19.5	4.3	7.6	7.9	13.4	19.9	15.2
Cycle Q Clear(g_c), s	11.0	33.7	33.7	3.8	19.5	19.5	4.3	7.6	7.9	13.4	19.9	15.2
Prop In Lane	1.00		0.09	1.00		0.33	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	247	665	689	99	517	513	109	377	370	281	578	490
V/C Ratio(X)	0.89	1.00	1.01	0.78	0.80	0.81	0.80	0.46	0.47	0.95	0.79	0.64
Avail Cap(c_a), veh/h	247	665	689	101	519	516	109	377	370	281	578	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	28.1	28.2	42.0	29.5	29.5	41.7	30.9	31.0	37.6	28.4	26.8
Incr Delay (d2), s/veh	21.4	28.3	28.5	30.9	8.9	9.0	33.0	3.9	4.2	41.1	10.3	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	18.1	18.8	2.5	9.1	9.1	2.9	3.6	3.6	9.0	10.4	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	56.5	56.7	72.9	38.4	38.6	74.7	34.9	35.3	78.7	38.7	33.0
LnGrp LOS	E	F	F	E	D	D	E	C	D	E	D	C
Approach Vol, veh/h		1583			906			433			1034	
Approach Delay, s/veh		57.0			41.4			43.0			47.3	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.7	23.6	9.5	38.2	10.0	32.3	17.0	30.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	14.2	19.0	5.1	33.7	5.5	27.7	12.5	26.3				
Max Q Clear Time (g_c+I1), s	15.4	9.9	5.8	35.7	6.3	21.9	13.0	21.5				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.0	0.0	2.1	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			49.4									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	30	0	122	0	0	0	49	432	0	0	404	22
Future Volume (veh/h)	30	0	122	0	0	0	49	432	0	0	404	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	0	133	0	0	0	53	470	0	0	439	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	0	179	2	2	0	77	2752	1228	2	2399	1070
Arrive On Green	0.06	0.00	0.11	0.00	0.00	0.00	0.04	0.77	0.00	0.00	0.67	0.67
Sat Flow, veh/h	1781	0	1585	1781	1870	0	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	33	0	133	0	0	0	53	470	0	0	439	24
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.4	0.0	6.5	0.0	0.0	0.0	2.3	2.7	0.0	0.0	3.7	0.4
Cycle Q Clear(g_c), s	1.4	0.0	6.5	0.0	0.0	0.0	2.3	2.7	0.0	0.0	3.7	0.4
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	0	179	2	2	0	77	2752	1228	2	2399	1070
V/C Ratio(X)	0.30	0.00	0.74	0.00	0.00	0.00	0.69	0.17	0.00	0.00	0.18	0.02
Avail Cap(c_a), veh/h	401	0	614	111	421	0	147	2752	1228	111	2399	1070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.93	0.93
Uniform Delay (d), s/veh	35.9	0.0	34.4	0.0	0.0	0.0	37.7	2.3	0.0	0.0	4.8	4.3
Incr Delay (d2), s/veh	1.6	0.0	6.0	0.0	0.0	0.0	10.4	0.1	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.8	0.0	0.0	0.0	1.2	0.5	0.0	0.0	1.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.5	0.0	40.3	0.0	0.0	0.0	48.1	2.5	0.0	0.0	5.0	4.3
LnGrp LOS	D	A	D	A	A	A	D	A	A	A	A	A
Approach Vol, veh/h		166			0			523			463	
Approach Delay, s/veh		39.7			0.0			7.1			4.9	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	66.5	0.0	13.5	8.0	58.5	9.4	4.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	21.0	5.0	31.0	6.6	19.4	18.0	18.0				
Max Q Clear Time (g_c+I1), s	0.0	4.7	0.0	8.5	4.3	5.7	3.4	0.0				
Green Ext Time (p_c), s	0.0	2.6	0.0	0.8	0.0	2.3	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	44	1	122	75	12	50	59	518	3	5	445	30
Future Volume (veh/h)	44	1	122	75	12	50	59	518	3	5	445	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	1	133	82	13	54	64	563	3	5	484	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	1	181	106	36	148	84	2111	941	12	1966	877
Arrive On Green	0.06	0.11	0.11	0.06	0.11	0.11	0.05	0.59	0.59	0.01	0.55	0.55
Sat Flow, veh/h	1781	12	1575	1781	317	1316	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	48	0	134	82	0	67	64	563	3	5	484	33
Grp Sat Flow(s),veh/h/ln	1781	0	1587	1781	0	1633	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.1	0.0	6.5	3.6	0.0	3.0	2.8	6.1	0.1	0.2	5.6	0.8
Cycle Q Clear(g_c), s	2.1	0.0	6.5	3.6	0.0	3.0	2.8	6.1	0.1	0.2	5.6	0.8
Prop In Lane	1.00		0.99	1.00		0.81	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	182	106	0	183	84	2111	941	12	1966	877
V/C Ratio(X)	0.43	0.00	0.73	0.77	0.00	0.37	0.76	0.27	0.00	0.43	0.25	0.04
Avail Cap(c_a), veh/h	401	0	530	207	0	368	158	2111	941	111	1966	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	36.1	0.0	34.2	37.1	0.0	32.9	37.6	7.8	6.6	39.6	9.2	8.2
Incr Delay (d2), s/veh	2.6	0.0	5.6	11.3	0.0	1.2	12.9	0.3	0.0	21.3	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.8	1.9	0.0	1.2	1.5	2.0	0.0	0.2	1.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	0.0	39.9	48.4	0.0	34.1	50.5	8.1	6.6	60.9	9.5	8.2
LnGrp LOS	D	A	D	D	A	C	D	A	A	E	A	A
Approach Vol, veh/h		182			149			630			522	
Approach Delay, s/veh		39.6			42.0			12.4			9.9	
Approach LOS		D			D			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	52.0	9.3	13.7	8.3	48.7	9.5	13.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	21.0	9.3	26.7	7.1	18.9	18.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	8.1	5.6	8.5	4.8	7.6	4.1	5.0				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.7	0.0	2.3	0.1	0.2				
Intersection Summary												
HCM 6th Ctrl Delay				17.9								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	50	0	0	30	0	0
Future Vol, veh/h	50	0	0	30	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	0	0	33	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 27
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	- 0	- 0 1042
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 1042
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection

Int Delay, s/veh 2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	50	1	0	59	0	37
Future Vol, veh/h	50	1	0	59	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	1	0	64	0	40

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	-	0	0
Stage 1	-	0	0
Stage 2	-	0	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	1041	-	-	-
HCM Lane V/C Ratio	0.039	-	-	-
HCM Control Delay (s)	8.6	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	0	30	0	0	16
Future Vol, veh/h	0	0	30	0	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	33	0	0	17

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	17	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	1058	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1058	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	37	21	0	0	107
Future Vol, veh/h	0	37	21	0	0	107
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	23	0	0	116

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	12	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1065	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1065	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 1065	-
HCM Lane V/C Ratio	-	- 0.038	-
HCM Control Delay (s)	-	- 8.5	-
HCM Lane LOS	-	- A	-
HCM 95th %tile Q(veh)	-	- 0.1	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	0	0	87	50	0
Future Vol, veh/h	0	0	0	87	50	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	92	53	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	27	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	883	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	883	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

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

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	37	0	68	100	2
Future Vol, veh/h	0	37	0	68	100	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	39	0	72	105	2

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	54	-	0	0
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	850	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	850	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	850	-	-
HCM Lane V/C Ratio	-	0.046	-	-
HCM Control Delay (s)	-	9.4	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↖	↗	↗	↕		↗	↖	↖
Traffic Volume (veh/h)	0	0	0	0	14	318	0	522	52	93	1065	1
Future Volume (veh/h)	0	0	0	0	14	318	0	522	52	93	1065	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	0	15	335	0	549	55	98	1121	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	498	0	196	498	422	196	1596	159	1001	2577	2
Arrive On Green	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	0	1870	0	1781	1870	1585	502	3262	326	1583	5269	5
Grp Volume(v), veh/h	0	0	0	0	15	335	0	298	306	98	724	398
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	502	1777	1812	791	1702	1870
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.2	7.2	0.0	3.8	3.8	1.5	5.1	5.1
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.2	7.2	0.0	3.8	3.8	5.3	5.1	5.1
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	0	498	0	196	498	422	196	869	886	1001	1665	914
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.03	0.79	0.00	0.34	0.34	0.10	0.44	0.44
Avail Cap(c_a), veh/h	0	915	0	592	915	775	196	869	886	1001	1665	914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	10.0	12.6	0.0	5.8	5.8	7.4	6.1	6.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	3.4	0.0	1.1	1.1	0.2	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.1	2.4	0.0	1.1	1.1	0.2	1.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	10.0	16.0	0.0	6.9	6.8	7.6	6.9	7.6
LnGrp LOS	A	A	A	A	B	B	A	A	A	A	A	A
Approach Vol, veh/h		0			350			604			1220	
Approach Delay, s/veh		0.0			15.7			6.8			7.2	
Approach LOS					B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		14.3		22.5		14.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		5.8		0.0		7.3		9.2				
Green Ext Time (p_c), s		3.0		0.0		5.8		0.9				

Intersection Summary

HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary

29: Richton St & Monte Vista Ave

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↖	↖	↕		↖	↗	
Traffic Volume (veh/h)	0	0	0	106	0	127	1	928	72	34	885	0
Future Volume (veh/h)	0	0	0	106	0	127	1	928	72	34	885	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	112	0	134	1	977	76	36	932	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	267	0	483	267	226	514	1909	149	867	2918	0
Arrive On Green	0.00	0.00	0.00	0.14	0.00	0.14	0.57	0.57	0.57	0.57	0.57	0.00
Sat Flow, veh/h	0	1870	0	1781	1870	1585	601	3341	260	1040	5274	0
Grp Volume(v), veh/h	0	0	0	112	0	134	1	520	533	36	932	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	601	1777	1824	520	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	2.5	0.0	5.6	5.6	0.7	3.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	0.0	2.5	3.0	5.6	5.6	6.3	3.0	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	0	267	0	483	267	226	514	1015	1042	867	2918	0
V/C Ratio(X)	0.00	0.00	0.00	0.23	0.00	0.59	0.00	0.51	0.51	0.04	0.32	0.00
Avail Cap(c_a), veh/h	0	1069	0	1247	1069	906	514	1015	1042	867	2918	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	12.3	0.0	12.6	4.3	4.1	4.1	6.0	3.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	2.5	0.0	1.8	1.8	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.6	0.0	0.8	0.0	1.1	1.2	0.1	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	12.6	0.0	15.1	4.3	5.9	5.9	6.1	3.8	0.0
LnGrp LOS	A	A	A	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		0			246			1054			968	
Approach Delay, s/veh		0.0			14.0			5.9			3.9	
Approach LOS					B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		9.0		22.5		9.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		7.6		0.0		8.3		4.5				
Green Ext Time (p_c), s		5.0		0.0		4.7		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				5.9								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	528	111	289	843	64	155	92	274	87	115	79
Future Volume (veh/h)	43	528	111	289	843	64	155	92	274	87	115	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	574	121	314	916	70	168	100	298	95	125	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	1844	823	478	1844	823	453	588	525	294	687	441
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	610	3554	1585	839	3554	1585	1171	1777	1585	987	2076	1332
Grp Volume(v), veh/h	47	574	121	314	916	70	168	100	298	95	106	105
Grp Sat Flow(s),veh/h/ln	610	1777	1585	839	1777	1585	1171	1777	1585	987	1777	1631
Q Serve(g_s), s	3.2	5.6	2.4	20.6	10.0	1.3	7.2	2.4	9.3	5.3	2.5	2.8
Cycle Q Clear(g_c), s	13.3	5.6	2.4	26.2	10.0	1.3	10.0	2.4	9.3	14.6	2.5	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	335	1844	823	478	1844	823	453	588	525	294	588	540
V/C Ratio(X)	0.14	0.31	0.15	0.66	0.50	0.09	0.37	0.17	0.57	0.32	0.18	0.20
Avail Cap(c_a), veh/h	348	1925	859	497	1925	859	453	588	525	294	588	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.83	0.83	0.83	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	8.3	7.5	15.8	9.4	7.3	17.9	14.2	16.5	22.5	14.3	14.4
Incr Delay (d2), s/veh	0.2	0.1	0.1	2.5	0.2	0.0	1.7	0.5	3.3	2.9	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	0.7	3.7	3.2	0.4	2.0	1.0	3.5	1.4	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	8.4	7.6	18.3	9.5	7.3	19.6	14.7	19.8	25.4	14.9	15.2
LnGrp LOS	B	A	A	B	A	A	B	B	B	C	B	B
Approach Vol, veh/h		742			1300			566			306	
Approach Delay, s/veh		8.6			11.5			18.9			18.3	
Approach LOS		A			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.4		35.6		24.4		35.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		12.0		15.3		16.6		28.2				
Green Ext Time (p_c), s		1.8		4.5		0.3		3.0				
Intersection Summary												
HCM 6th Ctrl Delay				12.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑		↘	↑↑	
Traffic Volume (veh/h)	42	702	147	329	910	82	157	95	246	64	137	70
Future Volume (veh/h)	42	702	147	329	910	82	157	95	246	64	137	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	763	160	358	989	89	171	103	267	70	149	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	376	2278	1016	472	2278	1016	312	438	391	185	572	277
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	569	3554	1585	704	3554	1585	1156	1777	1585	1012	2320	1125
Grp Volume(v), veh/h	46	763	160	358	989	89	171	103	267	70	112	113
Grp Sat Flow(s),veh/h/ln	569	1777	1585	704	1777	1585	1156	1777	1585	1012	1777	1668
Q Serve(g_s), s	3.5	7.9	3.2	37.9	11.1	1.7	11.2	3.7	12.2	5.4	4.1	4.4
Cycle Q Clear(g_c), s	14.6	7.9	3.2	45.7	11.1	1.7	15.6	3.7	12.2	17.6	4.1	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	376	2278	1016	472	2278	1016	312	438	391	185	438	411
V/C Ratio(X)	0.12	0.33	0.16	0.76	0.43	0.09	0.55	0.24	0.68	0.38	0.26	0.27
Avail Cap(c_a), veh/h	385	2332	1040	483	2332	1040	312	438	391	185	438	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.8	6.6	5.7	17.0	7.1	5.5	30.7	24.1	27.3	35.3	24.2	24.4
Incr Delay (d2), s/veh	0.1	0.1	0.1	5.9	0.1	0.0	5.1	0.9	7.0	5.8	1.4	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.5	0.9	6.1	3.5	0.5	3.5	1.6	5.2	1.6	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.9	6.6	5.8	22.9	7.3	5.5	35.7	25.0	34.3	41.1	25.7	26.0
LnGrp LOS	B	A	A	C	A	A	D	C	C	D	C	C
Approach Vol, veh/h		969			1436			541			295	
Approach Delay, s/veh		6.7			11.0			33.0			29.5	
Approach LOS		A			B			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.2		55.8		24.2		55.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		52.5		18.5		52.5				
Max Q Clear Time (g_c+I1), s		17.6		16.6		19.6		47.7				
Green Ext Time (p_c), s		0.3		7.6		0.0		3.5				
Intersection Summary												
HCM 6th Ctrl Delay				15.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	92	738	131	134	979	153	120	88	97	148	81	167
Future Volume (veh/h)	92	738	131	134	979	153	120	88	97	148	81	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	802	142	146	1064	166	130	96	105	161	88	182
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	1731	772	349	1731	772	554	679	575	547	679	575
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	530	3554	1585	678	3554	1585	1309	1870	1585	1300	1870	1585
Grp Volume(v), veh/h	100	802	142	146	1064	166	130	96	105	161	88	182
Grp Sat Flow(s),veh/h/ln	530	1777	1585	678	1777	1585	1309	1870	1585	1300	1870	1585
Q Serve(g_s), s	10.2	9.0	3.0	10.9	13.2	3.6	4.4	2.1	2.7	5.7	1.9	5.0
Cycle Q Clear(g_c), s	23.4	9.0	3.0	19.9	13.2	3.6	6.3	2.1	2.7	7.8	1.9	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	262	1731	772	349	1731	772	554	679	575	547	679	575
V/C Ratio(X)	0.38	0.46	0.18	0.42	0.61	0.21	0.23	0.14	0.18	0.29	0.13	0.32
Avail Cap(c_a), veh/h	291	1925	859	386	1925	859	554	679	575	547	679	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.64	0.64	0.64	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	10.2	8.7	16.8	11.3	8.8	14.9	12.8	13.0	15.4	12.8	13.8
Incr Delay (d2), s/veh	0.9	0.2	0.1	0.5	0.3	0.1	0.8	0.3	0.6	1.4	0.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.0	0.9	1.6	4.4	1.1	1.3	0.8	1.0	1.7	0.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	10.4	8.8	17.3	11.6	8.9	15.7	13.2	13.6	16.8	13.2	15.2
LnGrp LOS	C	B	A	B	B	A	B	B	B	B	B	B
Approach Vol, veh/h		1044			1376			331			431	
Approach Delay, s/veh		11.1			11.9			14.3			15.4	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.3		33.7		26.3		33.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		8.3		25.4		9.8		21.9				
Green Ext Time (p_c), s		0.9		3.9		1.1		6.5				
Intersection Summary												
HCM 6th Ctrl Delay				12.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	114	923	150	182	950	96	218	83	68	87	138	168
Future Volume (veh/h)	114	923	150	182	950	96	218	83	68	87	138	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	1003	163	198	1033	104	237	90	74	95	150	183
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	322	2010	897	333	2010	897	401	553	469	451	553	469
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	546	3554	1585	562	3554	1585	1237	1870	1585	1307	1870	1585
Grp Volume(v), veh/h	124	1003	163	198	1033	104	237	90	74	95	150	183
Grp Sat Flow(s),veh/h/ln	546	1777	1585	562	1777	1585	1237	1870	1585	1307	1870	1585
Q Serve(g_s), s	11.7	11.1	3.2	21.4	11.6	2.0	11.8	2.3	2.2	3.8	4.0	6.0
Cycle Q Clear(g_c), s	23.3	11.1	3.2	32.5	11.6	2.0	15.8	2.3	2.2	6.1	4.0	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	2010	897	333	2010	897	401	553	469	451	553	469
V/C Ratio(X)	0.38	0.50	0.18	0.60	0.51	0.12	0.59	0.16	0.16	0.21	0.27	0.39
Avail Cap(c_a), veh/h	329	2050	914	339	2050	914	401	553	469	451	553	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.69	0.69	0.69	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	8.5	6.8	18.4	8.6	6.6	23.6	16.9	16.9	19.2	17.5	18.2
Incr Delay (d2), s/veh	0.7	0.2	0.1	1.9	0.1	0.0	5.5	0.5	0.6	1.1	1.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.5	0.9	2.6	3.7	0.6	3.8	1.0	0.8	1.2	1.8	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.5	8.7	6.9	20.3	8.8	6.6	29.0	17.5	17.5	20.2	18.7	20.6
LnGrp LOS	B	A	A	C	A	A	C	B	B	C	B	C
Approach Vol, veh/h		1290			1335			401			428	
Approach Delay, s/veh		9.2			10.3			24.3			19.9	
Approach LOS		A			B			C			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.7		41.3		23.7		41.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		37.5		18.5		37.5				
Max Q Clear Time (g_c+I1), s		17.8		25.3		8.1		34.5				
Green Ext Time (p_c), s		0.1		6.9		1.3		2.2				
Intersection Summary												
HCM 6th Ctrl Delay				12.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	762	254	550	889	132	358	139	528	142	126	99
Future Volume (veh/h)	56	762	254	550	889	132	358	139	528	142	126	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	828	276	598	966	143	389	151	574	154	137	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	910	406	664	1437	641	490	552	467	344	438	321
Arrive On Green	0.04	0.26	0.26	0.19	0.40	0.40	0.13	0.29	0.29	0.06	0.22	0.22
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1956	1434
Grp Volume(v), veh/h	61	828	276	598	966	143	389	151	574	154	124	121
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1612
Q Serve(g_s), s	3.1	20.3	14.1	15.2	20.0	5.3	11.5	5.6	26.5	5.1	5.2	5.7
Cycle Q Clear(g_c), s	3.1	20.3	14.1	15.2	20.0	5.3	11.5	5.6	26.5	5.1	5.2	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.89
Lane Grp Cap(c), veh/h	78	910	406	664	1437	641	490	552	467	344	398	361
V/C Ratio(X)	0.78	0.91	0.68	0.90	0.67	0.22	0.79	0.27	1.23	0.45	0.31	0.34
Avail Cap(c_a), veh/h	115	928	414	672	1437	641	490	552	467	344	398	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	32.5	30.1	35.5	21.9	17.5	25.4	24.3	31.7	25.6	29.1	29.3
Incr Delay (d2), s/veh	16.7	11.7	4.0	15.2	1.2	0.2	8.3	1.2	119.3	0.9	2.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.6	5.5	7.4	7.8	1.8	2.9	2.5	24.8	2.5	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	44.1	34.1	50.7	23.2	17.7	33.6	25.5	151.0	26.5	31.2	31.8
LnGrp LOS	E	D	C	D	C	B	C	C	F	C	C	C
Approach Vol, veh/h		1165			1707			1114			399	
Approach Delay, s/veh		42.6			32.3			93.0			29.6	
Approach LOS		D			C			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	31.0	21.8	27.6	16.0	24.6	8.5	40.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	25.9	17.5	23.5	11.5	19.5	5.8	35.2				
Max Q Clear Time (g_c+I1), s	7.1	28.5	17.2	22.3	13.5	7.7	5.1	22.0				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.7	0.0	1.0	0.0	5.5				
Intersection Summary												
HCM 6th Ctrl Delay			50.2									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘↘	↗↗	↘	↘	↗	↘	↘	↗↗	↘
Traffic Volume (veh/h)	56	856	197	408	987	117	229	150	570	133	91	57
Future Volume (veh/h)	56	856	197	408	987	117	229	150	570	133	91	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	930	214	443	1073	127	249	163	620	145	99	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	999	446	511	1369	611	554	588	498	353	539	314
Arrive On Green	0.04	0.28	0.28	0.15	0.39	0.39	0.12	0.31	0.31	0.06	0.25	0.25
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2161	1259
Grp Volume(v), veh/h	61	930	214	443	1073	127	249	163	620	145	80	81
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1644
Q Serve(g_s), s	3.1	22.9	10.1	11.3	23.9	4.8	8.9	5.9	28.3	5.1	3.2	3.5
Cycle Q Clear(g_c), s	3.1	22.9	10.1	11.3	23.9	4.8	8.9	5.9	28.3	5.1	3.2	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.77
Lane Grp Cap(c), veh/h	78	999	446	511	1369	611	554	588	498	353	443	410
V/C Ratio(X)	0.78	0.93	0.48	0.87	0.78	0.21	0.45	0.28	1.25	0.41	0.18	0.20
Avail Cap(c_a), veh/h	115	1007	449	518	1369	611	573	588	498	353	443	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	31.5	26.9	37.5	24.4	18.5	19.5	23.2	30.9	23.6	26.6	26.7
Incr Delay (d2), s/veh	15.9	12.9	0.7	14.2	3.1	0.2	0.5	1.1	125.4	0.8	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	10.8	3.6	5.5	9.7	1.7	3.5	2.6	27.2	2.3	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	44.4	27.6	51.7	27.4	18.7	20.0	24.3	156.3	24.4	27.5	27.8
LnGrp LOS	E	D	C	D	C	B	C	C	F	C	C	C
Approach Vol, veh/h		1205			1643			1032				306
Approach Delay, s/veh		42.1			33.3			102.5				26.1
Approach LOS		D			C			F				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	32.8	17.8	29.8	15.4	26.9	8.5	39.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	27.9	13.5	25.5	11.9	21.1	5.8	33.2				
Max Q Clear Time (g_c+I1), s	7.1	30.3	13.3	24.9	10.9	5.5	5.1	25.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.1	0.7	0.0	4.1				
Intersection Summary												
HCM 6th Ctrl Delay				52.4								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/05/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘		↗↗	↘		↗
Traffic Volume (veh/h)	146	777	490	77	717	505	179	0	626	107	0	561
Future Volume (veh/h)	146	777	490	77	717	505	179	0	626	107	0	561
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	159	845	533	84	779	549	195	0	680	116	0	610
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	178	998	445	108	858	383	853	0	0	853	0	0
Arrive On Green	0.10	0.28	0.28	0.06	0.24	0.24	0.48	0.00	0.00	0.48	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	195		1781	116	
Grp Volume(v), veh/h	159	845	533	84	779	549	195	11.6		116	11.0	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	6.6	16.8	21.1	3.5	16.0	18.1	4.8			2.7		
Cycle Q Clear(g_c), s	6.6	16.8	21.1	3.5	16.0	18.1	4.8			2.7		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	178	998	445	108	858	383	853			853		
V/C Ratio(X)	0.89	0.85	1.20	0.78	0.91	1.44	0.23			0.14		
Avail Cap(c_a), veh/h	178	998	445	121	858	383	853			853		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	33.4	25.4	27.0	34.7	27.6	28.5	11.4			10.9		
Incr Delay (d2), s/veh	38.8	6.9	108.8	24.7	13.4	210.3	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.6	7.3	20.5	2.1	7.7	28.5	1.6			0.9		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.1	32.3	135.7	59.4	41.1	238.7	11.6			11.0		
LnGrp LOS	E	C	F	E	D	F	B			B		
Approach Vol, veh/h		1537			1412							
Approach Delay, s/veh		72.3			119.0							
Approach LOS		E			F							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	40.4		9.0	25.6	40.4		12.0	22.6				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	10.5		5.1	20.5	9.0		7.5	18.1				
Max Q Clear Time (g_c+I1), s	4.7		5.5	23.1	6.8		8.6	20.1				
Green Ext Time (p_c), s	0.1		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			86.7									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘		↗↘	↘		↗
Traffic Volume (veh/h)	186	889	549	46	810	375	122	0	663	73	0	524
Future Volume (veh/h)	186	889	549	46	810	375	122	0	663	73	0	524
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	202	966	597	50	880	408	133	0	721	79	0	570
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	236	1298	579	71	967	431	793	0	0	793	0	0
Arrive On Green	0.13	0.37	0.37	0.04	0.27	0.27	0.45	0.00	0.00	0.45	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	133		1781	79	
Grp Volume(v), veh/h	202	966	597	50	880	408	133	15.1		79	14.6	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	10.0	21.3	32.9	2.5	21.6	22.7	4.0			2.3		
Cycle Q Clear(g_c), s	10.0	21.3	32.9	2.5	21.6	22.7	4.0			2.3		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	236	1298	579	71	967	431	793			793		
V/C Ratio(X)	0.86	0.74	1.03	0.71	0.91	0.95	0.17			0.10		
Avail Cap(c_a), veh/h	247	1298	579	101	967	431	793			793		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	38.2	24.9	28.6	42.7	31.7	32.1	15.0			14.5		
Incr Delay (d2), s/veh	23.5	2.4	45.7	12.2	12.3	29.9	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	5.7	8.6	18.6	1.3	10.2	11.6	1.5			0.9		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.7	27.3	74.2	54.9	44.0	62.0	15.1			14.6		
LnGrp LOS	E	C	F	D	D	E	B			B		
Approach Vol, veh/h		1765			1338							
Approach Delay, s/veh		47.1			49.9							
Approach LOS		D			D							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	44.6		8.1	37.4	44.6		16.4	29.0				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	6.9		5.1	31.9	8.5		12.5	24.5				
Max Q Clear Time (g_c+I1), s	4.3		4.5	34.9	6.0		12.0	24.7				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			46.2									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	271	0	19	1	0	0	18	729	1	1	607	249
Future Volume (vph)	271	0	19	1	0	0	18	729	1	1	607	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1612	1504		1770		1770	3539		1770	3539	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.35	1.00	1.00
Satd. Flow (perm)	1681	1612	1504		1863		1770	3539		655	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	295	0	21	1	0	0	20	792	1	1	660	271
RTOR Reduction (vph)	0	121	16	0	0	0	0	0	0	0	0	113
Lane Group Flow (vph)	147	29	3	0	1	0	20	793	0	1	660	158
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	12.4	12.4	12.4		1.2		3.0	52.9		45.4	45.4	45.4
Effective Green, g (s)	12.4	12.4	12.4		1.2		3.0	52.9		45.4	45.4	45.4
Actuated g/C Ratio	0.16	0.16	0.16		0.01		0.04	0.66		0.57	0.57	0.57
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	260	249	233		27		66	2340		371	2008	898
v/s Ratio Prot	c0.09	0.02					0.01	c0.22			0.19	
v/s Ratio Perm			0.00		c0.00					0.00		0.10
v/c Ratio	0.57	0.12	0.01		0.04		0.30	0.34		0.00	0.33	0.18
Uniform Delay, d1	31.3	29.1	28.6		38.8		37.5	5.9		7.5	9.2	8.3
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.8	0.2	0.0		0.6		2.6	0.4		0.0	0.4	0.4
Delay (s)	34.1	29.3	28.6		39.4		40.1	6.3		7.5	9.6	8.7
Level of Service	C	C	C		D		D	A		A	A	A
Approach Delay (s)		31.5			39.4			7.1			9.4	
Approach LOS		C			D			A			A	

Intersection Summary		
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.40	B
Actuated Cycle Length (s)	80.0	Sum of lost time (s)
Intersection Capacity Utilization	36.4%	18.0
Analysis Period (min)	15	ICU Level of Service
		A

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
























5: Monte Vista Ave & Claremont Blvd

04/08/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	287	0	235	4	7	1	222	624	4	2	472	218
Future Volume (vph)	287	0	235	4	7	1	222	624	4	2	472	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.94	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.97	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1547	1504		1815		1770	3536		1770	3539	1583
Flt Permitted	0.95	0.97	1.00		1.00		0.95	1.00		0.39	1.00	1.00
Satd. Flow (perm)	1681	1547	1504		1843		1770	3536		731	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	312	0	255	4	8	1	241	678	4	2	513	237
RTOR Reduction (vph)	0	117	146	0	1	0	0	0	0	0	0	167
Lane Group Flow (vph)	197	75	32	0	12	0	241	682	0	2	513	70
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	14.5	14.5	14.5		1.5		22.3	50.5		23.7	23.7	23.7
Effective Green, g (s)	14.5	14.5	14.5		1.5		22.3	50.5		23.7	23.7	23.7
Actuated g/C Ratio	0.18	0.18	0.18		0.02		0.28	0.63		0.30	0.30	0.30
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	304	280	272		34		493	2232		216	1048	468
v/s Ratio Prot	c0.12	0.05					c0.14	0.19			c0.14	
v/s Ratio Perm			0.02		c0.01					0.00		0.04
v/c Ratio	0.65	0.27	0.12		0.35		0.49	0.31		0.01	0.49	0.15
Uniform Delay, d1	30.4	28.2	27.4		38.8		24.1	6.7		19.9	23.2	20.7
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.7	0.5	0.2		6.2		0.8	0.4		0.1	1.6	0.7
Delay (s)	35.1	28.7	27.6		45.0		24.9	7.1		19.9	24.8	21.4
Level of Service	D	C	C		D		C	A		B	C	C
Approach Delay (s)		30.6			45.0			11.7			23.7	
Approach LOS		C			D			B			C	
Intersection Summary												
HCM 2000 Control Delay			20.7				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			18.0		
Intersection Capacity Utilization			53.6%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												
























HCM 6th Signalized Intersection Summary
6: Foothill Blvd & Indian Hill Blvd

04/05/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	727	252	166	705	144	284	380	162	202	356	110
Future Volume (veh/h)	103	727	252	166	705	144	284	380	162	202	356	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	790	274	180	766	157	309	413	176	220	387	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	751	260	194	1136	507	319	626	264	256	416	352
Arrive On Green	0.08	0.29	0.29	0.11	0.32	0.32	0.18	0.26	0.26	0.14	0.22	0.22
Sat Flow, veh/h	1781	2588	897	1781	3554	1585	1781	2436	1026	1781	1870	1585
Grp Volume(v), veh/h	112	542	522	180	766	157	309	300	289	220	387	120
Grp Sat Flow(s),veh/h/ln	1781	1777	1709	1781	1777	1585	1781	1777	1686	1781	1870	1585
Q Serve(g_s), s	5.6	26.1	26.1	9.0	16.8	6.7	15.5	13.6	13.8	10.9	18.3	5.7
Cycle Q Clear(g_c), s	5.6	26.1	26.1	9.0	16.8	6.7	15.5	13.6	13.8	10.9	18.3	5.7
Prop In Lane	1.00		0.53	1.00		1.00	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	141	515	496	194	1136	507	319	457	433	256	416	352
V/C Ratio(X)	0.79	1.05	1.05	0.93	0.67	0.31	0.97	0.66	0.67	0.86	0.93	0.34
Avail Cap(c_a), veh/h	172	515	496	194	1136	507	319	457	433	305	416	352
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	40.7	31.9	32.0	39.8	26.5	23.1	36.7	29.9	30.0	37.6	34.3	29.5
Incr Delay (d2), s/veh	18.6	54.1	55.1	44.6	1.6	0.3	42.1	7.2	7.9	16.3	26.9	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	18.2	17.6	6.2	6.9	2.4	10.2	6.5	6.3	5.8	11.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	86.0	87.0	84.4	28.1	23.5	78.8	37.1	37.9	54.0	61.3	31.7
LnGrp LOS	E	F	F	F	C	C	E	D	D	D	E	C
Approach Vol, veh/h		1176			1103			898			727	
Approach Delay, s/veh		83.9			36.6			51.7			54.2	
Approach LOS		F			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	27.6	14.3	30.6	20.6	24.5	11.6	33.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.4	20.7	9.8	26.1	16.1	20.0	8.7	27.2				
Max Q Clear Time (g_c+I1), s	12.9	15.8	11.0	28.1	17.5	20.3	7.6	18.8				
Green Ext Time (p_c), s	0.2	1.5	0.0	0.0	0.0	0.0	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay			57.6									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary
 6: Foothill Blvd & Indian Hill Blvd

04/08/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	779	234	147	778	135	339	374	154	173	372	144
Future Volume (veh/h)	95	779	234	147	778	135	339	374	154	173	372	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	847	254	160	846	147	368	407	167	188	404	157
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	813	244	172	1159	517	371	776	315	220	430	365
Arrive On Green	0.07	0.30	0.30	0.19	0.65	0.65	0.21	0.31	0.31	0.12	0.23	0.23
Sat Flow, veh/h	1781	2695	807	1781	3554	1585	1781	2467	1000	1781	1870	1585
Grp Volume(v), veh/h	103	558	543	160	846	147	368	292	282	188	404	157
Grp Sat Flow(s),veh/h/ln	1781	1777	1725	1781	1777	1585	1781	1777	1690	1781	1870	1585
Q Serve(g_s), s	6.3	33.2	33.2	9.7	17.4	4.4	22.7	14.8	15.1	11.4	23.3	9.3
Cycle Q Clear(g_c), s	6.3	33.2	33.2	9.7	17.4	4.4	22.7	14.8	15.1	11.4	23.3	9.3
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	128	536	521	172	1159	517	371	559	532	220	430	365
V/C Ratio(X)	0.80	1.04	1.04	0.93	0.73	0.28	0.99	0.52	0.53	0.85	0.94	0.43
Avail Cap(c_a), veh/h	154	536	521	172	1159	517	371	559	532	332	430	365
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	50.3	38.4	38.4	44.0	15.9	13.7	43.5	30.9	31.0	47.2	41.6	36.2
Incr Delay (d2), s/veh	21.9	49.9	50.9	49.3	2.4	0.3	44.6	3.5	3.8	10.6	26.6	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	21.2	20.8	6.1	4.7	1.4	14.4	6.8	6.6	5.7	13.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	88.3	89.3	93.3	18.3	13.9	88.1	34.4	34.8	57.8	68.1	39.2
LnGrp LOS	E	F	F	F	B	B	F	C	C	E	E	D
Approach Vol, veh/h		1204			1153			942			749	
Approach Delay, s/veh		87.4			28.1			55.5			59.5	
Approach LOS		F			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.1	39.1	15.1	37.7	27.4	29.8	12.4	40.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	20.5	27.7	10.6	33.2	22.9	25.3	9.5	34.3				
Max Q Clear Time (g_c+I1), s	13.4	17.1	11.7	35.2	24.7	25.3	8.3	19.4				
Green Ext Time (p_c), s	0.3	2.5	0.0	0.0	0.0	0.0	0.0	5.3				
Intersection Summary												
HCM 6th Ctrl Delay				57.9								
HCM 6th LOS				E								

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗		↔			↔	
Traffic Vol, veh/h	44	1011	54	71	941	11	0	0	102	0	0	45
Future Vol, veh/h	44	1011	54	71	941	11	0	0	102	0	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	1099	59	77	1023	12	0	0	111	0	0	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1035	0	0	1158	0	0	1861	2384	550	1823	2431	512
Stage 1	-	-	-	-	-	-	1195	1195	-	1177	1177	-
Stage 2	-	-	-	-	-	-	666	1189	-	646	1254	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	667	-	-	599	-	-	45	34	479	48	31	507
Stage 1	-	-	-	-	-	-	198	258	-	203	263	-
Stage 2	-	-	-	-	-	-	415	260	-	427	242	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	667	-	-	599	-	-	35	27	479	31	25	507
Mov Cap-2 Maneuver	-	-	-	-	-	-	35	27	-	31	25	-
Stage 1	-	-	-	-	-	-	184	239	-	188	229	-
Stage 2	-	-	-	-	-	-	327	226	-	305	225	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.8			14.8			12.9		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	479	667	-	-	599	-	-	507
HCM Lane V/C Ratio	0.231	0.072	-	-	0.129	-	-	0.096
HCM Control Delay (s)	14.8	10.8	-	-	11.9	-	-	12.9
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0.4	-	-	0.3

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	42	1176	62	90	1117	23	2	0	130	0	0	44
Future Vol, veh/h	42	1176	62	90	1117	23	2	0	130	0	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	1278	67	98	1214	25	2	0	141	0	0	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1239	0	0	1345	0	0	2173	2805	639	2141	2847	607
Stage 1	-	-	-	-	-	-	1370	1370	-	1410	1410	-
Stage 2	-	-	-	-	-	-	803	1435	-	731	1437	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	558	-	-	508	-	-	26	18	419	28	17	439
Stage 1	-	-	-	-	-	-	154	212	-	145	203	-
Stage 2	-	-	-	-	-	-	343	197	-	379	197	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	558	-	-	508	-	-	19	13	419	15	13	439
Mov Cap-2 Maneuver	-	-	-	-	-	-	19	13	-	15	13	-
Stage 1	-	-	-	-	-	-	141	195	-	133	164	-
Stage 2	-	-	-	-	-	-	247	159	-	230	181	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			1			25.3			14.2		
HCM LOS							D			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	318	558	-	-	508	-	-	439
HCM Lane V/C Ratio	0.451	0.082	-	-	0.193	-	-	0.109
HCM Control Delay (s)	25.3	12	-	-	13.8	-	-	14.2
HCM Lane LOS	D	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	2.2	0.3	-	-	0.7	-	-	0.4

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷		↷			↷	
Traffic Volume (veh/h)	9	1080	34	35	1003	10	40	5	24	27	8	0
Future Volume (veh/h)	9	1080	34	35	1003	10	40	5	24	27	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1174	37	38	1090	11	43	5	26	29	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	1571	701	208	1594	16	422	67	209	549	156	0
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.39	0.39	0.39	0.39	0.39	0.00
Sat Flow, veh/h	512	3554	1585	461	3604	36	808	170	530	1100	395	0
Grp Volume(v), veh/h	10	1174	37	38	537	564	74	0	0	38	0	0
Grp Sat Flow(s),veh/h/ln	512	1777	1585	461	1777	1864	1508	0	0	1494	0	0
Q Serve(g_s), s	0.9	15.1	0.7	4.1	13.3	13.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.2	15.1	0.7	19.2	13.3	13.3	1.5	0.0	0.0	0.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.58		0.35	0.76		0.00
Lane Grp Cap(c), veh/h	234	1571	701	208	786	824	698	0	0	704	0	0
V/C Ratio(X)	0.04	0.75	0.05	0.18	0.68	0.68	0.11	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	254	1712	764	226	856	898	698	0	0	704	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.54	0.54	0.54	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.9	12.8	8.8	20.8	12.3	12.3	10.5	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.7	0.0	0.2	1.1	1.1	0.3	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.9	0.2	0.4	4.2	4.4	0.6	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	14.5	8.8	21.0	13.4	13.3	10.8	0.0	0.0	10.4	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1221			1139			74			38	
Approach Delay, s/veh		14.3			13.6			10.8			10.4	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.2		28.8		26.2		28.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		26.5		19.5		26.5				
Max Q Clear Time (g_c+I1), s		3.5		17.1		2.7		21.2				
Green Ext Time (p_c), s		0.3		5.3		0.1		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				13.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	1102	37	31	1211	10	20	2	22	10	4	0
Future Volume (veh/h)	13	1102	37	31	1211	10	20	2	22	10	4	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	1198	40	34	1316	11	22	2	24	11	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	1627	726	213	1653	14	328	58	290	513	170	0
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.00
Sat Flow, veh/h	413	3554	1585	450	3612	30	614	153	767	1056	449	0
Grp Volume(v), veh/h	14	1198	40	34	647	680	48	0	0	15	0	0
Grp Sat Flow(s),veh/h/ln	413	1777	1585	450	1777	1865	1533	0	0	1505	0	0
Q Serve(g_s), s	1.6	15.2	0.8	3.7	17.1	17.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.7	15.2	0.8	18.8	17.1	17.1	1.0	0.0	0.0	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.46		0.50	0.73		0.00
Lane Grp Cap(c), veh/h	192	1627	726	213	813	854	676	0	0	683	0	0
V/C Ratio(X)	0.07	0.74	0.06	0.16	0.80	0.80	0.07	0.00	0.00	0.02	0.00	0.00
Avail Cap(c_a), veh/h	209	1777	793	232	888	932	676	0	0	683	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.49	0.49	0.49	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.7	12.2	8.3	19.9	12.7	12.7	10.9	0.0	0.0	10.7	0.0	0.0
Incr Delay (d2), s/veh	0.2	1.5	0.0	0.2	2.4	2.3	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.8	0.2	0.3	5.6	5.8	0.4	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	13.7	8.3	20.1	15.1	15.0	11.1	0.0	0.0	10.8	0.0	0.0
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1252			1361			48			15	
Approach Delay, s/veh		13.6			15.2			11.1			10.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.3		29.7		25.3		29.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		27.5		18.5		27.5				
Max Q Clear Time (g_c+I1), s		3.0		20.7		2.3		20.8				
Green Ext Time (p_c), s		0.1		4.2		0.0		4.3				
Intersection Summary												
HCM 6th Ctrl Delay				14.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	998	31	22	813	121	11	10	50	159	7	208
Future Volume (veh/h)	203	998	31	22	813	121	11	10	50	159	7	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	221	1085	34	24	884	132	12	11	54	173	8	226
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	1358	43	46	953	425	232	193	389	209	784	665
Arrive On Green	0.14	0.39	0.39	0.03	0.27	0.27	0.25	0.25	0.25	0.12	0.42	0.42
Sat Flow, veh/h	1781	3517	110	1781	3554	1585	666	784	1585	1781	1870	1585
Grp Volume(v), veh/h	221	548	571	24	884	132	23	0	54	173	8	226
Grp Sat Flow(s),veh/h/ln	1781	1777	1851	1781	1777	1585	1450	0	1585	1781	1870	1585
Q Serve(g_s), s	9.7	21.9	21.9	1.1	19.4	5.3	0.0	0.0	2.1	7.6	0.2	7.7
Cycle Q Clear(g_c), s	9.7	21.9	21.9	1.1	19.4	5.3	0.8	0.0	2.1	7.6	0.2	7.7
Prop In Lane	1.00		0.06	1.00		1.00	0.52		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	686	715	46	953	425	425	0	389	209	784	665
V/C Ratio(X)	0.86	0.80	0.80	0.52	0.93	0.31	0.05	0.00	0.14	0.83	0.01	0.34
Avail Cap(c_a), veh/h	256	686	715	114	955	426	425	0	389	212	784	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	0.80	0.80	0.80	1.00	0.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	33.5	21.8	21.8	38.5	28.5	23.4	23.0	0.0	23.6	34.5	13.5	15.7
Incr Delay (d2), s/veh	16.2	4.0	3.9	7.1	12.4	0.3	0.2	0.0	0.7	22.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	8.9	9.3	0.5	9.2	1.9	0.4	0.0	0.8	4.4	0.1	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	25.8	25.7	45.6	40.9	23.7	23.3	0.0	24.3	56.6	13.6	17.1
LnGrp LOS	D	C	C	D	D	C	C	A	C	E	B	B
Approach Vol, veh/h		1340			1040			77			407	
Approach Delay, s/veh		29.7			38.8			24.0			33.8	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	13.9	24.2	6.6	35.4		38.0	16.0	26.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	19.5	5.1	27.9		33.5	11.5	21.5				
Max Q Clear Time (g_c+I1), s	9.6	4.1	3.1	23.9		9.7	11.7	21.4				
Green Ext Time (p_c), s	0.0	0.2	0.0	2.4		0.7	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay				33.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/08/2024


























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖		↖	↗	↖	↗	↖
Traffic Volume (veh/h)	153	994	16	50	1027	190	13	4	21	87	1	177
Future Volume (veh/h)	153	994	16	50	1027	190	13	4	21	87	1	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	166	1080	17	54	1116	207	14	4	23	95	1	192
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	1465	23	78	1206	538	329	84	403	121	708	600
Arrive On Green	0.11	0.41	0.41	0.04	0.34	0.34	0.25	0.25	0.25	0.07	0.38	0.38
Sat Flow, veh/h	1781	3581	56	1781	3554	1585	979	332	1585	1781	1870	1585
Grp Volume(v), veh/h	166	536	561	54	1116	207	18	0	23	95	1	192
Grp Sat Flow(s),veh/h/ln	1781	1777	1860	1781	1777	1585	1311	0	1585	1781	1870	1585
Q Serve(g_s), s	7.3	20.4	20.4	2.4	24.2	7.9	0.0	0.0	0.9	4.2	0.0	6.9
Cycle Q Clear(g_c), s	7.3	20.4	20.4	2.4	24.2	7.9	0.6	0.0	0.9	4.2	0.0	6.9
Prop In Lane	1.00		0.03	1.00		1.00	0.78		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	727	761	78	1206	538	413	0	403	121	708	600
V/C Ratio(X)	0.82	0.74	0.74	0.69	0.93	0.38	0.04	0.00	0.06	0.78	0.00	0.32
Avail Cap(c_a), veh/h	212	727	761	114	1222	545	413	0	403	122	708	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	0.67	0.67	0.67	1.00	0.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	34.7	20.0	20.0	37.7	25.4	20.1	22.5	0.0	22.6	36.7	15.5	17.6
Incr Delay (d2), s/veh	14.8	2.6	2.5	7.2	8.5	0.3	0.2	0.0	0.3	24.0	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	8.0	8.4	1.2	10.7	2.7	0.3	0.0	0.3	2.6	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.4	22.6	22.5	44.9	34.0	20.4	22.7	0.0	22.8	60.7	15.5	18.8
LnGrp LOS	D	C	C	D	C	C	C	A	C	E	B	B
Approach Vol, veh/h		1263			1377			41			288	
Approach Delay, s/veh		26.1			32.4			22.8			32.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	9.9	24.8	8.0	37.2		34.8	13.6	31.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	19.5	5.1	31.9		29.5	9.5	27.5				
Max Q Clear Time (g_c+I1), s	6.2	2.9	4.4	22.4		8.9	9.3	26.2				
Green Ext Time (p_c), s	0.0	0.1	0.0	4.5		0.6	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				29.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

04/08/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	836	212	236	735	53	116	270	178	62	215	84
Future Volume (veh/h)	141	836	212	236	735	53	116	270	178	62	215	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	153	909	230	257	799	58	126	293	193	67	234	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	1037	463	288	1225	547	751	668	428	308	811	306
Arrive On Green	0.11	0.29	0.29	0.16	0.34	0.34	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2046	2077	1331	910	2523	953
Grp Volume(v), veh/h	153	909	230	257	799	58	126	249	237	67	163	162
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1023	1777	1631	910	1777	1699
Q Serve(g_s), s	5.0	14.6	7.2	8.5	11.4	1.5	3.0	6.6	6.9	3.8	4.1	4.3
Cycle Q Clear(g_c), s	5.0	14.6	7.2	8.5	11.4	1.5	7.3	6.6	6.9	10.7	4.1	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.82	1.00		0.56
Lane Grp Cap(c), veh/h	194	1037	463	288	1225	547	751	571	524	308	571	546
V/C Ratio(X)	0.79	0.88	0.50	0.89	0.65	0.11	0.17	0.44	0.45	0.22	0.28	0.30
Avail Cap(c_a), veh/h	246	1066	476	288	1225	547	751	571	524	308	571	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	20.2	17.6	24.6	16.6	13.4	18.0	16.1	16.2	20.4	15.2	15.3
Incr Delay (d2), s/veh	7.9	5.2	0.5	27.5	1.2	0.1	0.5	2.4	2.8	1.6	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	5.9	2.3	5.4	4.1	0.5	0.7	2.7	2.6	0.9	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	25.4	18.1	52.1	17.9	13.5	18.5	18.5	18.9	22.0	16.5	16.7
LnGrp LOS	C	C	B	D	B	B	B	B	B	C	B	B
Approach Vol, veh/h		1292			1114			612			392	
Approach Delay, s/veh		25.1			25.5			18.6			17.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.8	14.2	22.0		23.8	11.0	25.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.8	9.7	18.0		18.8	8.3	19.4				
Max Q Clear Time (g_c+I1), s		9.3	10.5	16.6		12.7	7.0	13.4				
Green Ext Time (p_c), s		2.4	0.0	0.9		1.1	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay				23.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	912	117	101	811	47	214	231	104	72	220	108
Future Volume (veh/h)	120	912	117	101	811	47	214	231	104	72	220	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	991	127	110	882	51	233	251	113	78	239	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	1151	514	141	1102	491	832	895	391	421	870	412
Arrive On Green	0.09	0.32	0.32	0.08	0.31	0.31	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1989	2406	1052	1018	2340	1108
Grp Volume(v), veh/h	130	991	127	110	882	51	233	183	181	78	180	176
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	995	1777	1681	1018	1777	1671
Q Serve(g_s), s	4.3	15.7	3.5	3.6	13.7	1.4	5.6	4.3	4.5	3.5	4.2	4.4
Cycle Q Clear(g_c), s	4.3	15.7	3.5	3.6	13.7	1.4	10.0	4.3	4.5	8.0	4.2	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		0.66
Lane Grp Cap(c), veh/h	166	1151	514	141	1102	491	832	661	625	421	661	621
V/C Ratio(X)	0.78	0.86	0.25	0.78	0.80	0.10	0.28	0.28	0.29	0.19	0.27	0.28
Avail Cap(c_a), veh/h	223	1214	542	193	1155	515	832	661	625	421	661	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	19.0	14.9	27.1	19.0	14.8	16.8	13.2	13.3	16.1	13.2	13.2
Incr Delay (d2), s/veh	8.3	4.2	0.2	13.0	4.0	0.1	0.8	1.0	1.1	1.0	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	6.1	1.1	1.9	5.4	0.4	1.2	1.6	1.6	0.8	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	23.3	15.1	40.1	23.0	14.9	17.6	14.2	14.4	17.1	14.2	14.4
LnGrp LOS	C	C	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		1248			1043			597			434	
Approach Delay, s/veh		23.6			24.4			15.6			14.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.8	9.3	23.9		26.8	10.1	23.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	6.5	20.5		19.5	7.5	19.5				
Max Q Clear Time (g_c+I1), s		12.0	5.6	17.7		10.0	6.3	15.7				
Green Ext Time (p_c), s		2.0	0.0	1.8		1.6	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑↗	
Traffic Volume (veh/h)	41	753	279	259	700	169	276	519	192	139	457	83
Future Volume (veh/h)	41	753	279	259	700	169	276	519	192	139	457	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	793	294	273	737	178	291	546	202	146	481	87
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	952	425	275	1085	484	275	1040	464	253	1250	221
Arrive On Green	0.04	0.27	0.27	0.08	0.31	0.31	0.08	0.29	0.29	0.07	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4363	772
Grp Volume(v), veh/h	43	793	294	273	737	178	291	546	202	146	373	195
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1731
Q Serve(g_s), s	1.5	13.2	10.5	5.0	11.4	5.5	5.0	8.1	6.5	2.6	5.5	5.7
Cycle Q Clear(g_c), s	1.5	13.2	10.5	5.0	11.4	5.5	5.0	8.1	6.5	2.6	5.5	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	75	952	425	275	1085	484	275	1040	464	253	975	496
V/C Ratio(X)	0.57	0.83	0.69	0.99	0.68	0.37	1.06	0.52	0.44	0.58	0.38	0.39
Avail Cap(c_a), veh/h	142	1018	454	275	1085	484	275	1040	464	275	975	496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	21.7	20.7	28.9	19.1	17.1	28.9	18.6	18.0	28.2	18.0	18.0
Incr Delay (d2), s/veh	6.8	5.7	4.1	52.1	1.7	0.5	70.4	1.9	3.0	2.5	1.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.6	3.9	3.9	4.3	1.8	4.6	3.1	2.5	1.0	2.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	27.4	24.8	81.0	20.8	17.5	99.3	20.5	21.0	30.7	19.1	20.4
LnGrp LOS	D	C	C	F	C	B	F	C	C	C	B	C
Approach Vol, veh/h		1130			1188			1039			714	
Approach Delay, s/veh		27.1			34.2			42.6			21.8	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	22.9	9.5	21.3	9.5	22.5	7.1	23.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.6	10.1	7.0	15.2	7.0	7.7	3.5	13.4				
Green Ext Time (p_c), s	0.0	2.5	0.0	1.6	0.0	2.4	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay				32.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	832	153	144	735	232	135	435	148	137	455	61
Future Volume (veh/h)	169	832	153	144	735	232	135	435	148	137	455	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	876	161	152	774	244	142	458	156	144	479	64
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	993	443	256	973	434	252	1019	454	253	1310	172
Arrive On Green	0.08	0.28	0.28	0.07	0.27	0.27	0.07	0.29	0.29	0.07	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4567	600
Grp Volume(v), veh/h	178	876	161	152	774	244	142	458	156	144	355	188
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1762
Q Serve(g_s), s	5.0	14.8	5.1	2.7	12.7	8.3	2.5	6.6	4.9	2.5	5.2	5.3
Cycle Q Clear(g_c), s	5.0	14.8	5.1	2.7	12.7	8.3	2.5	6.6	4.9	2.5	5.2	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.34
Lane Grp Cap(c), veh/h	142	993	443	256	973	434	252	1019	454	253	977	506
V/C Ratio(X)	1.25	0.88	0.36	0.59	0.80	0.56	0.56	0.45	0.34	0.57	0.36	0.37
Avail Cap(c_a), veh/h	142	1019	454	275	1019	454	275	1019	454	275	977	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	21.6	18.1	28.2	21.2	19.6	28.1	18.3	17.7	28.1	17.8	17.9
Incr Delay (d2), s/veh	159.5	9.1	0.5	3.0	4.3	1.4	2.2	1.4	2.1	2.3	1.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	6.6	1.7	1.1	5.2	2.9	1.0	2.5	1.8	1.0	1.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	188.4	30.7	18.6	31.2	25.5	21.0	30.3	19.8	19.8	30.5	18.9	20.0
LnGrp LOS	F	C	B	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		1215			1170			756			687	
Approach Delay, s/veh		52.2			25.3			21.8			21.6	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	22.5	9.1	22.0	9.1	22.5	9.5	21.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.5	8.6	4.7	16.8	4.5	7.3	7.0	14.7				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.7	0.0	2.3	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				32.5								
HCM 6th LOS				C								

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	853	447	253	863	0	474	0	295	1	0	0
Future Volume (vph)	14	853	447	253	863	0	474	0	295	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.97	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		0.95	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1581	1504		3362	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1581	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	898	471	266	908	0	499	0	311	1	0	0
RTOR Reduction (vph)	0	0	248	0	0	0	0	107	183	0	0	0
Lane Group Flow (vph)	15	898	223	266	908	0	279	169	72	0	1	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	447	425		55	
v/s Ratio Prot	0.01	c0.25		c0.08	c0.26		c0.17	0.11				
v/s Ratio Perm			0.14						0.05		c0.00	
v/c Ratio	0.62	0.74	0.41	0.99	0.63		0.59	0.38	0.17		0.02	
Uniform Delay, d1	31.4	18.6	16.1	29.5	15.2		19.7	18.4	17.3		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	41.4	2.5	0.5	52.7	0.9		5.2	2.4	0.9		0.1	
Delay (s)	72.7	21.0	16.6	82.2	16.1		25.0	20.9	18.2		31.1	
Level of Service	E	C	B	F	B		C	C	B		C	
Approach Delay (s)		20.1			31.1			21.4			31.1	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	946	300	243	839	0	365	0	283	0	0	2
Future Volume (vph)	13	946	300	243	839	0	365	0	283	0	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.95	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.97	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1554	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.97	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1554	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	996	316	256	883	0	384	0	298	0	0	2
RTOR Reduction (vph)	0	0	150	0	0	0	0	107	154	0	2	0
Lane Group Flow (vph)	14	996	166	256	883	0	234	126	61	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	439	425		47	
v/s Ratio Prot	0.01	c0.28		c0.07	c0.25		c0.14	0.08			c0.00	
v/s Ratio Perm			0.10						0.04			
v/c Ratio	0.58	0.82	0.31	0.96	0.61		0.49	0.29	0.14		0.00	
Uniform Delay, d1	31.4	19.3	15.5	29.4	15.0		19.1	17.9	17.2		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	31.3	4.6	0.3	42.4	0.8		3.6	1.6	0.7		0.0	
Delay (s)	62.7	23.9	15.8	71.8	15.8		22.7	19.6	17.9		31.0	
Level of Service	E	C	B	E	B		C	B	B		C	
Approach Delay (s)		22.4			28.4			20.1			31.0	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	74.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	9	70	4	137	86	38	7	396	149	36	402	8
Future Vol, veh/h	9	70	4	137	86	38	7	396	149	36	402	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	76	4	149	93	41	8	430	162	39	437	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1114	1128	442	1087	1051	511	446	0	0	592	0	0
Stage 1	520	520	-	527	527	-	-	-	-	-	-	-
Stage 2	594	608	-	560	524	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	185	204	615	194	227	563	1114	-	-	984	-	-
Stage 1	539	532	-	535	528	-	-	-	-	-	-	-
Stage 2	491	486	-	513	530	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	110	194	615	~ 129	216	563	1114	-	-	984	-	-
Mov Cap-2 Maneuver	110	194	-	~ 129	216	-	-	-	-	-	-	-
Stage 1	535	511	-	531	524	-	-	-	-	-	-	-
Stage 2	371	483	-	416	509	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	41.7	\$ 368.5	0.1	0.7
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	185	171	984	-
HCM Lane V/C Ratio	0.007	-	-	0.488	1.659	0.04	-
HCM Control Delay (s)	8.3	-	-	41.7	368.5	8.8	-
HCM Lane LOS	A	-	-	E	F	A	-
HCM 95th %tile Q(veh)	0	-	-	2.4	19.5	0.1	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	148.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	6	0	3	108	10	114	6	828	108	97	728	0
Future Vol, veh/h	6	0	3	108	10	114	6	828	108	97	728	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	3	117	11	124	7	900	117	105	791	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2041	2032	791	1976	1974	959	791	0	0	1017	0	0
Stage 1	1001	1001	-	973	973	-	-	-	-	-	-	-
Stage 2	1040	1031	-	1003	1001	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	42	57	390	~46	62	312	829	-	-	682	-	-
Stage 1	293	321	-	303	330	-	-	-	-	-	-	-
Stage 2	278	310	-	292	321	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	19	48	390	~40	52	312	829	-	-	682	-	-
Mov Cap-2 Maneuver	19	48	-	~40	52	-	-	-	-	-	-	-
Stage 1	291	272	-	301	327	-	-	-	-	-	-	-
Stage 2	161	308	-	245	272	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	191.3		\$ 1270.7		0.1		1.3	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	829	-	-	28	71	682	-
HCM Lane V/C Ratio	0.008	-	-	0.349	3.552	0.155	-
HCM Control Delay (s)	9.4	-	-	191.3	\$ 1270.7	11.2	-
HCM Lane LOS	A	-	-	F	F	B	-
HCM 95th %tile Q(veh)	0	-	-	1.1	26.2	0.5	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	24
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	58	281	6	68	269	14	8	173	71	17	172	58
Future Vol, veh/h	58	281	6	68	269	14	8	173	71	17	172	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	305	7	74	292	15	9	188	77	18	187	63
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	27.1	27.7	19.2	19.1
HCM LOS	D	D	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	17%	19%	7%
Vol Thru, %	69%	81%	77%	70%
Vol Right, %	28%	2%	4%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	252	345	351	247
LT Vol	8	58	68	17
Through Vol	173	281	269	172
RT Vol	71	6	14	58
Lane Flow Rate	274	375	382	268
Geometry Grp	1	1	1	1
Degree of Util (X)	0.555	0.732	0.742	0.548
Departure Headway (Hd)	7.295	7.029	7.005	7.346
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	493	514	515	489
Service Time	5.375	5.102	5.077	5.426
HCM Lane V/C Ratio	0.556	0.73	0.742	0.548
HCM Control Delay	19.2	27.1	27.7	19.1
HCM Lane LOS	C	D	D	C
HCM 95th-tile Q	3.3	6	6.2	3.3

Intersection	
Intersection Delay, s/veh	45.2
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	61	282	65	89	260	15	83	177	57	12	150	56
Future Vol, veh/h	61	282	65	89	260	15	83	177	57	12	150	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	66	307	71	97	283	16	90	192	62	13	163	61
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	62.6	47.2	35.9	22.7
HCM LOS	F	E	E	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	15%	24%	6%
Vol Thru, %	56%	69%	71%	69%
Vol Right, %	18%	16%	4%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	317	408	364	218
LT Vol	83	61	89	12
Through Vol	177	282	260	150
RT Vol	57	65	15	56
Lane Flow Rate	345	443	396	237
Geometry Grp	1	1	1	1
Degree of Util (X)	0.788	0.968	0.882	0.57
Departure Headway (Hd)	8.231	7.855	8.025	8.661
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	438	466	451	415
Service Time	6.315	5.855	6.108	6.759
HCM Lane V/C Ratio	0.788	0.951	0.878	0.571
HCM Control Delay	35.9	62.6	47.2	22.7
HCM Lane LOS	E	F	E	C
HCM 95th-tile Q	6.9	12	9.3	3.4

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	303	16	26	331	5	18	0	9	2	5	0
Future Vol, veh/h	3	303	16	26	331	5	18	0	9	2	5	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	329	17	28	360	5	20	0	10	2	5	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.7	11.4	8.8	8.8
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	1%	7%	29%
Vol Thru, %	0%	94%	91%	71%
Vol Right, %	33%	5%	1%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	322	362	7
LT Vol	18	3	26	2
Through Vol	0	303	331	5
RT Vol	9	16	5	0
Lane Flow Rate	29	350	393	8
Geometry Grp	1	1	1	1
Degree of Util (X)	0.045	0.429	0.481	0.012
Departure Headway (Hd)	5.476	4.409	4.399	5.645
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	652	819	818	632
Service Time	3.525	2.43	2.42	3.698
HCM Lane V/C Ratio	0.044	0.427	0.48	0.013
HCM Control Delay	8.8	10.7	11.4	8.8
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.1	2.2	2.6	0

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	358	17	15	364	4	14	0	11	2	4	3
Future Vol, veh/h	6	358	17	15	364	4	14	0	11	2	4	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	389	18	16	396	4	15	0	12	2	4	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12	12.2	8.9	8.8
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	56%	2%	4%	22%
Vol Thru, %	0%	94%	95%	44%
Vol Right, %	44%	4%	1%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	381	383	9
LT Vol	14	6	15	2
Through Vol	0	358	364	4
RT Vol	11	17	4	3
Lane Flow Rate	27	414	416	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.042	0.511	0.516	0.015
Departure Headway (Hd)	5.576	4.441	4.461	5.609
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	639	812	808	635
Service Time	3.634	2.464	2.485	3.672
HCM Lane V/C Ratio	0.042	0.51	0.515	0.016
HCM Control Delay	8.9	12	12.2	8.8
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.1	3	3	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	112	323	56	181	375	122	66	428	167	67	321	120
Future Volume (veh/h)	112	323	56	181	375	122	66	428	167	67	321	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	340	59	191	395	128	69	451	176	71	338	126
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	424	370	64	417	438	371	297	596	231	242	608	223
Arrive On Green	0.24	0.24	0.24	0.23	0.23	0.23	0.05	0.24	0.24	0.05	0.24	0.24
Sat Flow, veh/h	1781	1552	269	1781	1870	1585	1781	2504	969	1781	2546	933
Grp Volume(v), veh/h	118	0	399	191	395	128	69	319	308	71	234	230
Grp Sat Flow(s),veh/h/ln	1781	0	1822	1781	1870	1585	1781	1777	1696	1781	1777	1702
Q Serve(g_s), s	4.1	0.0	16.1	7.0	15.5	5.1	2.2	12.6	12.8	2.2	8.7	9.0
Cycle Q Clear(g_c), s	4.1	0.0	16.1	7.0	15.5	5.1	2.2	12.6	12.8	2.2	8.7	9.0
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.57	1.00		0.55
Lane Grp Cap(c), veh/h	424	0	434	417	438	371	297	423	404	242	424	407
V/C Ratio(X)	0.28	0.00	0.92	0.46	0.90	0.34	0.23	0.75	0.76	0.29	0.55	0.57
Avail Cap(c_a), veh/h	424	0	434	424	445	378	324	423	404	268	424	407
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	28.1	24.8	28.1	24.1	20.5	26.7	26.8	21.1	25.2	25.3
Incr Delay (d2), s/veh	0.4	0.0	24.6	0.8	21.0	0.6	0.4	11.8	12.8	0.7	5.1	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	9.3	2.9	9.2	1.9	0.9	6.3	6.2	0.9	4.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	0.0	52.7	25.6	49.1	24.7	20.9	38.5	39.6	21.7	30.3	30.9
LnGrp LOS	C	A	D	C	D	C	C	D	D	C	C	C
Approach Vol, veh/h		517			714			696			535	
Approach Delay, s/veh		46.1			38.4			37.2			29.4	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	22.5		22.5	8.3	22.5		22.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	4.2	14.8		18.1	4.2	11.0		17.5				
Green Ext Time (p_c), s	0.0	1.1		0.0	0.0	1.5		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				37.8								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary

16: Claremont Blvd & 6st St/W Arrow Rt

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	87	356	50	227	334	48	40	271	165	111	413	108
Future Volume (veh/h)	87	356	50	227	334	48	40	271	165	111	413	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	375	53	239	352	51	42	285	174	117	435	114
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	425	382	54	388	408	346	275	512	304	324	743	193
Arrive On Green	0.24	0.24	0.24	0.22	0.22	0.22	0.04	0.24	0.24	0.07	0.27	0.27
Sat Flow, veh/h	1781	1603	227	1781	1870	1585	1781	2145	1273	1781	2791	725
Grp Volume(v), veh/h	92	0	428	239	352	51	42	235	224	117	276	273
Grp Sat Flow(s),veh/h/ln	1781	0	1830	1781	1870	1585	1781	1777	1641	1781	1777	1740
Q Serve(g_s), s	3.1	0.0	17.5	9.1	13.7	2.0	1.3	8.7	9.1	3.7	10.2	10.3
Cycle Q Clear(g_c), s	3.1	0.0	17.5	9.1	13.7	2.0	1.3	8.7	9.1	3.7	10.2	10.3
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.78	1.00		0.42
Lane Grp Cap(c), veh/h	425	0	437	388	408	346	275	424	392	324	473	463
V/C Ratio(X)	0.22	0.00	0.98	0.62	0.86	0.15	0.15	0.55	0.57	0.36	0.58	0.59
Avail Cap(c_a), veh/h	425	0	437	425	446	378	324	424	392	324	473	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	28.5	26.6	28.4	23.8	20.6	25.2	25.3	20.1	24.0	24.1
Incr Delay (d2), s/veh	0.3	0.0	37.8	2.3	15.0	0.2	0.3	5.1	6.0	0.7	5.2	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	11.5	4.0	7.5	0.7	0.5	4.0	3.9	1.5	4.6	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	0.0	66.4	28.9	43.4	24.0	20.9	30.3	31.3	20.8	29.2	29.6
LnGrp LOS	C	A	E	C	D	C	C	C	C	C	C	C
Approach Vol, veh/h		520			642			501			666	
Approach Delay, s/veh		58.8			36.5			30.0			27.9	
Approach LOS		E			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5		22.5	7.4	24.6		20.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	5.7	11.1		19.5	3.3	12.3		15.7				
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	1.5		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				37.6								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↖	↗	↗↘	↗↘↙		↗	↗↘↙	
Traffic Volume (veh/h)	213	273	71	47	330	50	138	733	34	29	794	184
Future Volume (veh/h)	213	273	71	47	330	50	138	733	34	29	794	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	224	287	75	49	347	53	145	772	36	31	836	194
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	741	190	83	424	359	266	1745	81	60	1267	292
Arrive On Green	0.08	0.26	0.26	0.05	0.23	0.23	0.08	0.35	0.35	0.03	0.31	0.31
Sat Flow, veh/h	1781	2799	719	1781	1870	1585	3456	5000	232	1781	4146	956
Grp Volume(v), veh/h	224	180	182	49	347	53	145	525	283	31	685	345
Grp Sat Flow(s),veh/h/ln	1781	1777	1741	1781	1870	1585	1728	1702	1829	1781	1702	1698
Q Serve(g_s), s	5.0	4.9	5.0	1.6	10.4	1.6	2.4	7.0	7.0	1.0	10.3	10.4
Cycle Q Clear(g_c), s	5.0	4.9	5.0	1.6	10.4	1.6	2.4	7.0	7.0	1.0	10.3	10.4
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.13	1.00		0.56
Lane Grp Cap(c), veh/h	151	471	461	83	424	359	266	1188	638	60	1041	519
V/C Ratio(X)	1.48	0.38	0.39	0.59	0.82	0.15	0.55	0.44	0.44	0.52	0.66	0.66
Avail Cap(c_a), veh/h	151	543	532	151	572	485	293	1188	638	151	1041	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	17.7	17.8	27.5	21.6	18.2	26.2	14.8	14.8	28.0	17.8	17.8
Incr Delay (d2), s/veh	248.4	0.5	0.5	6.4	6.8	0.2	1.7	1.2	2.2	6.7	3.3	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	1.8	1.8	0.8	4.7	0.5	0.9	2.4	2.8	0.5	3.8	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	275.3	18.2	18.3	33.9	28.4	18.4	27.9	16.0	17.0	34.6	21.0	24.4
LnGrp LOS	F	B	B	C	C	B	C	B	B	C	C	C
Approach Vol, veh/h		586			449			953			1061	
Approach Delay, s/veh		116.5			27.8			18.1			22.5	
Approach LOS		F			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	25.0	7.3	20.1	9.0	22.5	9.5	17.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.0	9.0	3.6	7.0	4.4	12.4	7.0	12.4				
Green Ext Time (p_c), s	0.0	3.2	0.0	1.4	0.0	2.9	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			40.0									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

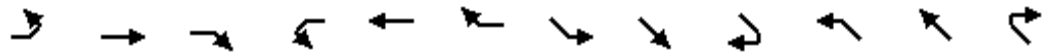
04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖↗	↖↗		↖	↗	↖↗
Traffic Volume (veh/h)	134	464	66	79	393	58	85	518	123	75	683	112
Future Volume (veh/h)	134	464	66	79	393	58	85	518	123	75	683	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	488	69	83	414	61	89	545	129	79	719	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	869	122	111	481	408	222	1248	289	108	1318	214
Arrive On Green	0.08	0.28	0.28	0.06	0.26	0.26	0.06	0.30	0.30	0.06	0.30	0.30
Sat Flow, veh/h	1781	3128	440	1781	1870	1585	3456	4143	959	1781	4426	719
Grp Volume(v), veh/h	141	276	281	83	414	61	89	446	228	79	551	286
Grp Sat Flow(s),veh/h/ln	1781	1777	1791	1781	1870	1585	1728	1702	1698	1781	1702	1741
Q Serve(g_s), s	4.8	8.0	8.1	2.8	12.8	1.8	1.5	6.4	6.6	2.6	8.2	8.3
Cycle Q Clear(g_c), s	4.8	8.0	8.1	2.8	12.8	1.8	1.5	6.4	6.6	2.6	8.2	8.3
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.56	1.00		0.41
Lane Grp Cap(c), veh/h	147	494	498	111	481	408	222	1026	512	108	1014	519
V/C Ratio(X)	0.96	0.56	0.56	0.75	0.86	0.15	0.40	0.43	0.45	0.73	0.54	0.55
Avail Cap(c_a), veh/h	147	529	534	147	557	472	286	1026	512	147	1014	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	18.7	18.7	27.9	21.4	17.3	27.2	17.0	17.0	27.9	17.8	17.8
Incr Delay (d2), s/veh	60.9	1.2	1.2	13.6	11.6	0.2	1.2	1.3	2.8	11.2	2.1	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	3.0	3.0	1.5	6.3	0.6	0.6	2.3	2.5	1.3	3.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.5	19.8	19.9	41.5	33.0	17.5	28.3	18.3	19.8	39.1	19.9	22.0
LnGrp LOS	F	B	B	D	C	B	C	B	B	D	B	C
Approach Vol, veh/h		698			558			763				916
Approach Delay, s/veh		33.7			32.6			19.9				22.2
Approach LOS		C			C			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	22.7	8.3	21.3	8.4	22.5	9.5	20.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.6	8.6	4.8	10.1	3.5	10.3	6.8	14.8				
Green Ext Time (p_c), s	0.0	2.7	0.0	1.9	0.0	3.0	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				26.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

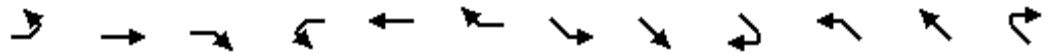
04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	37	23	44	28	23	57	35	793	15	20	781	10
Future Volume (veh/h)	37	23	44	28	23	57	35	793	15	20	781	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	25	48	30	25	62	38	862	16	22	849	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	31	380	74	42	380	65	1039	880	44	1001	13
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.04	0.56	0.56	0.02	0.54	0.54
Sat Flow, veh/h	0	130	1585	0	173	1585	1781	1870	1585	1781	1842	24
Grp Volume(v), veh/h	65	0	48	55	0	62	38	862	16	22	0	860
Grp Sat Flow(s),veh/h/ln	130	0	1585	173	0	1585	1781	1870	1585	1781	0	1866
Q Serve(g_s), s	0.0	0.0	1.8	0.0	0.0	2.3	1.6	28.5	0.3	0.9	0.0	29.3
Cycle Q Clear(g_c), s	18.0	0.0	1.8	18.0	0.0	2.3	1.6	28.5	0.3	0.9	0.0	29.3
Prop In Lane	0.62		1.00	0.55		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	109	0	380	116	0	380	65	1039	880	44	0	1014
V/C Ratio(X)	0.60	0.00	0.13	0.48	0.00	0.16	0.59	0.83	0.02	0.50	0.00	0.85
Avail Cap(c_a), veh/h	109	0	380	116	0	380	121	1039	880	119	0	1014
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.2	0.0	22.3	24.5	0.0	22.5	35.6	13.7	7.5	36.1	0.0	14.5
Incr Delay (d2), s/veh	8.7	0.0	0.1	3.0	0.0	0.2	8.1	7.7	0.0	8.7	0.0	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.7	0.8	0.0	0.9	0.8	12.8	0.1	0.5	0.0	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	0.0	22.5	27.5	0.0	22.7	43.7	21.4	7.5	44.8	0.0	23.3
LnGrp LOS	D	A	C	C	A	C	D	C	A	D	A	C
Approach Vol, veh/h		113			117			916				882
Approach Delay, s/veh		31.3			25.0			22.1				23.8
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	45.3		22.5	6.3	46.2		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	38.4		18.0	5.0	38.5		18.0				
Max Q Clear Time (g_c+I1), s	3.6	31.3		20.0	2.9	30.5		20.0				
Green Ext Time (p_c), s	0.0	3.6		0.0	0.0	4.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			23.5									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	45	19	42	17	27	49	48	728	51	20	832	9
Future Volume (veh/h)	45	19	42	17	27	49	48	728	51	20	832	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	21	46	18	29	53	52	791	55	22	904	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	20	357	62	74	357	76	1089	923	43	1040	12
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.04	0.58	0.58	0.02	0.56	0.56
Sat Flow, veh/h	0	89	1585	0	330	1585	1781	1870	1585	1781	1846	20
Grp Volume(v), veh/h	70	0	46	47	0	53	52	791	55	22	0	914
Grp Sat Flow(s),veh/h/ln	89	0	1585	330	0	1585	1781	1870	1585	1781	0	1867
Q Serve(g_s), s	0.0	0.0	1.9	0.0	0.0	2.1	2.3	24.5	1.2	1.0	0.0	33.5
Cycle Q Clear(g_c), s	18.0	0.0	1.9	18.0	0.0	2.1	2.3	24.5	1.2	1.0	0.0	33.5
Prop In Lane	0.70		1.00	0.38		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	97	0	357	137	0	357	76	1089	923	43	0	1052
V/C Ratio(X)	0.73	0.00	0.13	0.34	0.00	0.15	0.68	0.73	0.06	0.51	0.00	0.87
Avail Cap(c_a), veh/h	97	0	357	137	0	357	114	1089	923	111	0	1052
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	24.7	26.0	0.0	24.9	37.7	12.1	7.2	38.6	0.0	14.9
Incr Delay (d2), s/veh	23.5	0.0	0.2	1.5	0.0	0.2	10.2	4.2	0.1	9.1	0.0	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.7	0.8	0.0	0.8	1.2	10.4	0.4	0.5	0.0	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	0.0	24.9	27.5	0.0	25.0	47.9	16.4	7.4	47.6	0.0	24.7
LnGrp LOS	E	A	C	C	A	C	D	B	A	D	A	C
Approach Vol, veh/h		116			100			898				936
Approach Delay, s/veh		45.2			26.2			17.6				25.2
Approach LOS		D			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	49.6		22.5	6.4	51.1		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	43.4		18.0	5.0	43.5		18.0				
Max Q Clear Time (g_c+I1), s	4.3	35.5		20.0	3.0	26.5		20.0				
Green Ext Time (p_c), s	0.0	4.2		0.0	0.0	5.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	57	82	142	50	108	112	899	187	44	807	86
Future Volume (veh/h)	32	57	82	142	50	108	112	899	187	44	807	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	62	89	154	54	117	122	977	203	48	877	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	330	279	263	93	201	289	1188	1006	261	1032	109
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.05	0.63	0.63	0.04	0.62	0.62
Sat Flow, veh/h	1214	1870	1585	1236	526	1139	1781	1870	1585	1781	1662	176
Grp Volume(v), veh/h	35	62	89	154	0	171	122	977	203	48	0	970
Grp Sat Flow(s),veh/h/ln	1214	1870	1585	1236	0	1665	1781	1870	1585	1781	0	1839
Q Serve(g_s), s	2.5	2.5	4.4	10.9	0.0	8.5	2.2	35.9	4.8	0.8	0.0	38.1
Cycle Q Clear(g_c), s	10.9	2.5	4.4	13.5	0.0	8.5	2.2	35.9	4.8	0.8	0.0	38.1
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	179	330	279	263	0	293	289	1188	1006	261	0	1142
V/C Ratio(X)	0.20	0.19	0.32	0.59	0.00	0.58	0.42	0.82	0.20	0.18	0.00	0.85
Avail Cap(c_a), veh/h	208	374	317	292	0	333	303	1188	1006	291	0	1142
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.89	0.89	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.1	31.6	32.4	37.3	0.0	34.0	15.4	12.6	6.9	12.8	0.0	13.7
Incr Delay (d2), s/veh	0.5	0.3	0.6	2.5	0.0	2.0	0.9	5.8	0.4	0.3	0.0	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.2	1.7	3.5	0.0	3.6	1.3	14.7	1.6	0.4	0.0	16.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	31.9	33.0	39.8	0.0	36.0	16.2	18.4	7.3	13.1	0.0	21.7
LnGrp LOS	D	C	C	D	A	D	B	B	A	B	A	C
Approach Vol, veh/h		186			325			1302			1018	
Approach Delay, s/veh		33.9			37.8			16.5			21.3	
Approach LOS		C			D			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	61.6		20.4	9.3	60.4		20.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	53.5		18.0	5.5	53.0		18.0				
Max Q Clear Time (g_c+I1), s	2.8	37.9		12.9	4.2	40.1		15.5				
Green Ext Time (p_c), s	0.0	7.7		0.3	0.0	6.5		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				21.8								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	83	115	135	116	143	141	678	214	125	683	88
Future Volume (veh/h)	55	83	115	135	116	143	141	678	214	125	683	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	90	125	147	126	155	153	737	233	136	742	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	435	369	322	177	218	290	981	832	333	849	110
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.06	0.52	0.52	0.06	0.52	0.52
Sat Flow, veh/h	1098	1870	1585	1166	763	939	1781	1870	1585	1781	1623	210
Grp Volume(v), veh/h	60	90	125	147	0	281	153	737	233	136	0	838
Grp Sat Flow(s),veh/h/ln	1098	1870	1585	1166	0	1701	1781	1870	1585	1781	0	1833
Q Serve(g_s), s	4.0	2.9	4.9	8.7	0.0	11.4	2.9	23.2	6.1	2.6	0.0	30.1
Cycle Q Clear(g_c), s	15.4	2.9	4.9	11.6	0.0	11.4	2.9	23.2	6.1	2.6	0.0	30.1
Prop In Lane	1.00		1.00	1.00		0.55	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	185	435	369	322	0	396	290	981	832	333	0	959
V/C Ratio(X)	0.32	0.21	0.34	0.46	0.00	0.71	0.53	0.75	0.28	0.41	0.00	0.87
Avail Cap(c_a), veh/h	193	449	380	331	0	408	307	981	832	342	0	959
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.92	0.92	0.92	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.5	23.2	24.0	27.9	0.0	26.5	14.9	14.0	9.9	11.6	0.0	15.7
Incr Delay (d2), s/veh	1.0	0.2	0.5	1.0	0.0	5.5	1.4	4.9	0.8	0.8	0.0	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.3	1.9	2.5	0.0	5.1	1.2	9.9	2.1	0.9	0.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	23.4	24.5	28.9	0.0	31.9	16.2	18.9	10.7	12.4	0.0	26.6
LnGrp LOS	C	C	C	C	A	C	B	B	B	B	A	C
Approach Vol, veh/h		275			428			1123				974
Approach Delay, s/veh		26.3			30.9			16.8				24.6
Approach LOS		C			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	43.8		21.9	9.3	43.8		21.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	38.4		18.0	5.5	38.0		18.0				
Max Q Clear Time (g_c+I1), s	4.6	25.2		17.4	4.9	32.1		13.6				
Green Ext Time (p_c), s	0.0	5.1		0.1	0.0	3.1		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				22.6								
HCM 6th LOS				C								

Intersection	
Intersection Delay, s/veh	14.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↶	↶	↷	↶		↷			↷	
Traffic Vol, veh/h	94	155	57	17	151	40	62	148	36	31	151	85
Future Vol, veh/h	94	155	57	17	151	40	62	148	36	31	151	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	168	62	18	164	43	67	161	39	34	164	92
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	12.2	12.5	16.5	16.7
HCM LOS	B	B	C	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	25%	100%	0%	0%	100%	0%	0%	12%
Vol Thru, %	60%	0%	100%	0%	0%	100%	0%	57%
Vol Right, %	15%	0%	0%	100%	0%	0%	100%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	246	94	155	57	17	151	40	267
LT Vol	62	94	0	0	17	0	0	31
Through Vol	148	0	155	0	0	151	0	151
RT Vol	36	0	0	57	0	0	40	85
Lane Flow Rate	267	102	168	62	18	164	43	290
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.508	0.212	0.326	0.107	0.039	0.327	0.078	0.533
Departure Headway (Hd)	6.838	7.481	6.965	6.243	7.679	7.162	6.438	6.616
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	527	480	516	574	466	502	556	546
Service Time	4.576	5.222	4.706	3.984	5.422	4.905	4.181	4.354
HCM Lane V/C Ratio	0.507	0.212	0.326	0.108	0.039	0.327	0.077	0.531
HCM Control Delay	16.5	12.2	13.1	9.7	10.7	13.4	9.7	16.7
HCM Lane LOS	C	B	B	A	B	B	A	C
HCM 95th-tile Q	2.8	0.8	1.4	0.4	0.1	1.4	0.3	3.1

Intersection	
Intersection Delay, s/veh	45.4
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑	↖	↗	↑	↖		↕			↕	
Traffic Vol, veh/h	55	302	85	55	288	101	50	156	52	120	218	45
Future Vol, veh/h	55	302	85	55	288	101	50	156	52	120	218	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	328	92	60	313	110	54	170	57	130	237	49
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	33	29.7	32.3	86.9
HCM LOS	D	D	D	F

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	19%	100%	0%	0%	100%	0%	0%	31%
Vol Thru, %	60%	0%	100%	0%	0%	100%	0%	57%
Vol Right, %	20%	0%	0%	100%	0%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	258	55	302	85	55	288	101	383
LT Vol	50	55	0	0	55	0	0	120
Through Vol	156	0	302	0	0	288	0	218
RT Vol	52	0	0	85	0	0	101	45
Lane Flow Rate	280	60	328	92	60	313	110	416
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.71	0.156	0.814	0.213	0.157	0.778	0.254	1.043
Departure Headway (Hd)	9.467	9.824	9.293	8.55	9.854	9.323	8.579	9.021
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	384	367	394	422	366	391	422	408
Service Time	7.167	7.524	6.993	6.25	7.554	7.023	6.279	6.67
HCM Lane V/C Ratio	0.729	0.163	0.832	0.218	0.164	0.801	0.261	1.02
HCM Control Delay	32.3	14.3	41.9	13.5	14.4	38	14.2	86.9
HCM Lane LOS	D	B	E	B	B	E	B	F
HCM 95th-tile Q	5.3	0.5	7.3	0.8	0.6	6.5	1	13.7

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	2	89	4	1	5	79	559	4	2	449	109
Future Volume (veh/h)	113	2	89	4	1	5	79	559	4	2	449	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	2	97	4	1	5	86	608	4	2	488	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	189	160	18	5	20	628	2510	17	614	2465	1099
Arrive On Green	0.10	0.10	0.10	0.01	0.01	0.01	0.69	0.69	0.69	0.69	0.69	0.69
Sat Flow, veh/h	1781	1870	1585	1439	360	1585	814	3619	24	810	3554	1585
Grp Volume(v), veh/h	123	2	97	5	0	5	86	298	314	2	488	118
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1798	0	1585	814	1777	1866	810	1777	1585
Q Serve(g_s), s	4.7	0.1	4.1	0.2	0.0	0.2	2.9	4.3	4.3	0.1	3.4	1.7
Cycle Q Clear(g_c), s	4.7	0.1	4.1	0.2	0.0	0.2	6.3	4.3	4.3	4.4	3.4	1.7
Prop In Lane	1.00		1.00	0.80		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	180	189	160	23	0	20	628	1233	1294	614	2465	1099
V/C Ratio(X)	0.68	0.01	0.61	0.22	0.00	0.25	0.14	0.24	0.24	0.00	0.20	0.11
Avail Cap(c_a), veh/h	461	484	410	462	0	408	628	1233	1294	614	2465	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	30.4	28.3	30.1	34.2	0.0	34.2	4.9	3.9	3.9	4.8	3.8	3.5
Incr Delay (d2), s/veh	4.6	0.0	3.7	4.8	0.0	6.4	0.5	0.5	0.4	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.7	0.1	0.0	0.1	0.4	1.1	1.1	0.0	0.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	28.3	33.8	39.0	0.0	40.6	5.4	4.4	4.4	4.8	4.0	3.7
LnGrp LOS	C	C	C	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		222			10			698			608	
Approach Delay, s/veh		34.4			39.8			4.5			3.9	
Approach LOS		C			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		53.1		11.6		53.1		5.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.4		18.1		20.4		18.0				
Max Q Clear Time (g_c+I1), s		8.3		6.7		6.4		2.2				
Green Ext Time (p_c), s		3.2		0.5		2.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			8.8									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	4	249	4	0	5	112	296	1	5	503	198
Future Volume (veh/h)	168	4	249	4	0	5	112	296	1	5	503	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	4	271	4	0	5	122	322	1	5	547	215
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	361	379	322	20	0	18	468	2154	7	687	2107	940
Arrive On Green	0.20	0.20	0.20	0.01	0.00	0.01	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	704	3634	11	1057	3554	1585
Grp Volume(v), veh/h	183	4	271	4	0	5	122	157	166	5	547	215
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	704	1777	1868	1057	1777	1585
Q Serve(g_s), s	6.4	0.1	11.5	0.2	0.0	0.2	7.1	2.8	2.8	0.1	5.2	4.5
Cycle Q Clear(g_c), s	6.4	0.1	11.5	0.2	0.0	0.2	12.2	2.8	2.8	2.9	5.2	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	361	379	322	20	0	18	468	1053	1108	687	2107	940
V/C Ratio(X)	0.51	0.01	0.84	0.20	0.00	0.28	0.26	0.15	0.15	0.01	0.26	0.23
Avail Cap(c_a), veh/h	458	481	408	458	0	408	468	1053	1108	687	2107	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	24.8	22.3	26.8	34.3	0.0	34.3	9.8	6.4	6.4	7.0	6.9	6.7
Incr Delay (d2), s/veh	1.1	0.0	12.2	4.6	0.0	7.9	1.3	0.3	0.3	0.0	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	5.2	0.1	0.0	0.1	1.1	0.9	0.9	0.0	1.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	22.3	39.0	38.9	0.0	42.2	11.2	6.7	6.7	7.0	7.1	7.2
LnGrp LOS	C	C	D	D	A	D	B	A	A	A	A	A
Approach Vol, veh/h		458			9			445			767	
Approach Delay, s/veh		33.6			40.7			7.9			7.1	
Approach LOS		C			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.0		18.7		46.0		5.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		18.0		20.5		18.0				
Max Q Clear Time (g_c+I1), s		14.2		13.5		7.2		2.2				
Green Ext Time (p_c), s		1.4		0.7		3.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				14.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 22: Indian Hill Blvd & Arrow Hwy

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	628	222	141	486	197	187	869	364	257	746	189
Future Volume (veh/h)	224	628	222	141	486	197	187	869	364	257	746	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	683	241	153	528	214	203	945	396	279	811	205
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	1096	489	229	1096	489	317	1925	859	343	1522	385
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	875	3554	1585	758	3554	1585	555	3554	1585	593	2809	710
Grp Volume(v), veh/h	243	683	241	153	528	214	203	945	396	279	513	503
Grp Sat Flow(s),veh/h/ln	875	1777	1585	758	1777	1585	555	1777	1585	593	1777	1743
Q Serve(g_s), s	11.3	9.9	7.4	8.6	7.2	6.5	21.3	10.0	9.2	22.5	11.2	11.2
Cycle Q Clear(g_c), s	18.5	9.9	7.4	18.5	7.2	6.5	32.5	10.0	9.2	32.5	11.2	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	284	1096	489	229	1096	489	317	1925	859	343	962	944
V/C Ratio(X)	0.86	0.62	0.49	0.67	0.48	0.44	0.64	0.49	0.46	0.81	0.53	0.53
Avail Cap(c_a), veh/h	284	1096	489	229	1096	489	317	1925	859	343	962	944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	0.51	0.51	0.51
Uniform Delay (d), s/veh	26.2	17.8	16.9	26.9	16.9	16.6	19.6	8.6	8.4	21.0	8.9	8.9
Incr Delay (d2), s/veh	21.7	1.1	0.8	6.4	0.3	0.5	9.5	0.9	1.8	10.4	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	3.8	2.6	2.5	2.7	2.2	3.4	3.3	2.9	4.8	3.7	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	18.9	17.7	33.3	17.1	17.1	29.1	9.5	10.2	31.4	9.9	10.0
LnGrp LOS	D	B	B	C	B	B	C	A	B	C	A	A
Approach Vol, veh/h		1167			895			1544			1295	
Approach Delay, s/veh		24.7			19.9			12.2			14.6	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		37.0		23.0		37.0		23.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.5		18.5		32.5		18.5				
Max Q Clear Time (g_c+I1), s		34.5		20.5		34.5		20.5				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 22: Indian Hill Blvd & Arrow Hwy

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	203	1101	171	152	568	193	192	698	410	256	757	216
Future Volume (veh/h)	203	1101	171	152	568	193	192	698	410	256	757	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	221	1197	186	165	617	210	209	759	446	278	823	235
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	381	1421	634	205	1421	634	235	1421	634	327	1091	311
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	806	3554	1585	468	3554	1585	533	3554	1585	706	2728	779
Grp Volume(v), veh/h	221	1197	186	165	617	210	209	759	446	278	536	522
Grp Sat Flow(s),veh/h/ln	806	1777	1585	468	1777	1585	533	1777	1585	706	1777	1730
Q Serve(g_s), s	12.3	13.7	3.6	4.3	5.7	4.1	6.3	7.3	10.6	10.7	11.7	11.7
Cycle Q Clear(g_c), s	18.0	13.7	3.6	18.0	5.7	4.1	18.0	7.3	10.6	18.0	11.7	11.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	381	1421	634	205	1421	634	235	1421	634	327	711	692
V/C Ratio(X)	0.58	0.84	0.29	0.81	0.43	0.33	0.89	0.53	0.70	0.85	0.75	0.75
Avail Cap(c_a), veh/h	381	1421	634	205	1421	634	235	1421	634	327	711	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	16.3	12.2	9.2	21.9	9.8	9.3	21.4	10.3	11.3	19.3	11.6	11.6
Incr Delay (d2), s/veh	2.2	4.8	0.3	19.6	0.2	0.3	35.8	1.4	6.4	15.0	4.4	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	5.1	1.0	2.7	1.8	1.2	4.3	2.5	4.0	4.0	4.4	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	17.0	9.4	41.6	10.0	9.6	57.2	11.7	17.7	34.2	16.0	16.1
LnGrp LOS	B	B	A	D	A	A	E	B	B	C	B	B
Approach Vol, veh/h		1604			992			1414			1336	
Approach Delay, s/veh		16.3			15.2			20.3			19.8	
Approach LOS		B			B			C			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		20.0		20.0		20.0		20.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				18.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	1112	51	27	733	98	48	51	42	95	57	79
Future Volume (veh/h)	71	1112	51	27	733	98	48	51	42	95	57	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	1209	55	29	797	107	52	55	46	103	62	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	1495	68	200	1360	183	263	271	188	674	726	615
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	617	3462	157	439	3148	423	430	698	485	1294	1870	1585
Grp Volume(v), veh/h	77	620	644	29	450	454	153	0	0	103	62	86
Grp Sat Flow(s),veh/h/ln	617	1777	1842	439	1777	1794	1613	0	0	1294	1870	1585
Q Serve(g_s), s	5.4	15.2	15.3	3.1	9.6	9.6	0.0	0.0	0.0	0.0	1.0	1.8
Cycle Q Clear(g_c), s	15.1	15.2	15.3	18.3	9.6	9.6	2.9	0.0	0.0	1.9	1.0	1.8
Prop In Lane	1.00		0.09	1.00		0.24	0.34		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	292	768	796	200	768	775	722	0	0	674	726	615
V/C Ratio(X)	0.26	0.81	0.81	0.15	0.59	0.59	0.21	0.00	0.00	0.15	0.09	0.14
Avail Cap(c_a), veh/h	303	800	829	208	800	807	722	0	0	674	726	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	0.74	0.74	0.74	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	12.4	12.4	20.4	10.8	10.8	10.2	0.0	0.0	9.9	9.7	9.9
Incr Delay (d2), s/veh	0.3	4.1	4.0	0.2	0.8	0.8	0.7	0.0	0.0	0.5	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.6	5.8	0.3	3.2	3.2	1.1	0.0	0.0	0.7	0.4	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	16.5	16.4	20.7	11.6	11.6	10.9	0.0	0.0	10.4	9.9	10.4
LnGrp LOS	B	B	B	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		1341			933			153			251	
Approach Delay, s/veh		16.5			11.8			10.9			10.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.9		26.1		23.9		26.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		4.9		17.3		3.9		20.3				
Green Ext Time (p_c), s		0.6		3.6		0.8		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				14.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	1612	56	43	777	82	43	50	44	119	75	69
Future Volume (veh/h)	57	1612	56	43	777	82	43	50	44	119	75	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	1752	61	47	845	89	47	54	48	129	82	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	348	1898	66	140	1757	185	197	220	160	550	577	489
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	599	3504	121	258	3244	342	383	712	520	1293	1870	1585
Grp Volume(v), veh/h	62	885	928	47	463	471	149	0	0	129	82	75
Grp Sat Flow(s),veh/h/ln	599	1777	1848	258	1777	1809	1616	0	0	1293	1870	1585
Q Serve(g_s), s	4.3	27.3	27.7	4.8	9.7	9.7	0.0	0.0	0.0	0.0	1.9	2.1
Cycle Q Clear(g_c), s	14.0	27.3	27.7	32.5	9.7	9.7	3.8	0.0	0.0	3.2	1.9	2.1
Prop In Lane	1.00		0.07	1.00		0.19	0.32		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	348	962	1001	140	962	980	577	0	0	550	577	489
V/C Ratio(X)	0.18	0.92	0.93	0.33	0.48	0.48	0.26	0.00	0.00	0.23	0.14	0.15
Avail Cap(c_a), veh/h	348	962	1001	140	962	980	577	0	0	550	577	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.38	0.38	0.38	0.77	0.77	0.77	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	12.6	12.7	29.0	8.5	8.5	15.7	0.0	0.0	15.5	15.0	15.1
Incr Delay (d2), s/veh	0.1	6.0	6.4	1.1	0.3	0.3	1.1	0.0	0.0	1.0	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.0	10.6	0.7	3.0	3.1	1.6	0.0	0.0	1.4	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.9	18.6	19.1	30.0	8.8	8.8	16.8	0.0	0.0	16.5	15.5	15.7
LnGrp LOS	B	B	B	C	A	A	B	A	A	B	B	B
Approach Vol, veh/h		1875			981			149			286	
Approach Delay, s/veh		18.7			9.8			16.8			16.0	
Approach LOS		B			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		37.0		23.0		37.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		5.8		29.7		5.2		34.5				
Green Ext Time (p_c), s		0.6		2.5		0.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				15.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↗↘		↗	↗	↗
Traffic Volume (veh/h)	283	632	49	59	585	94	80	296	45	88	202	240
Future Volume (veh/h)	283	632	49	59	585	94	80	296	45	88	202	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	308	687	53	64	636	102	87	322	49	96	220	261
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	1262	97	87	716	115	111	819	123	123	506	429
Arrive On Green	0.19	0.38	0.38	0.05	0.23	0.23	0.06	0.26	0.26	0.07	0.27	0.27
Sat Flow, veh/h	1781	3343	258	1781	3068	491	1781	3097	467	1781	1870	1585
Grp Volume(v), veh/h	308	365	375	64	368	370	87	183	188	96	220	261
Grp Sat Flow(s),veh/h/ln	1781	1777	1824	1781	1777	1782	1781	1777	1786	1781	1870	1585
Q Serve(g_s), s	12.6	12.1	12.1	2.7	15.0	15.1	3.6	6.3	6.5	4.0	7.3	10.8
Cycle Q Clear(g_c), s	12.6	12.1	12.1	2.7	15.0	15.1	3.6	6.3	6.5	4.0	7.3	10.8
Prop In Lane	1.00		0.14	1.00		0.28	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	344	671	689	87	415	416	111	470	472	123	506	429
V/C Ratio(X)	0.89	0.54	0.54	0.73	0.89	0.89	0.78	0.39	0.40	0.78	0.43	0.61
Avail Cap(c_a), veh/h	344	671	689	166	426	428	131	470	472	131	506	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	18.3	18.3	35.2	27.8	27.8	34.6	22.6	22.7	34.4	22.6	23.9
Incr Delay (d2), s/veh	15.3	0.5	0.5	11.1	19.4	19.7	22.3	2.4	2.5	24.6	2.7	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	4.4	4.5	1.4	8.1	8.2	2.2	2.8	2.9	2.5	3.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	18.8	18.8	46.3	47.2	47.6	56.9	25.1	25.2	58.9	25.3	30.2
LnGrp LOS	D	B	B	D	D	D	E	C	C	E	C	C
Approach Vol, veh/h		1048			802			458			577	
Approach Delay, s/veh		26.4			47.3			31.2			33.1	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	24.3	8.2	32.8	9.2	24.8	19.0	22.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	19.0	7.0	25.5	5.5	19.0	14.5	18.0				
Max Q Clear Time (g_c+I1), s	6.0	8.5	4.7	14.1	5.6	12.8	14.6	17.1				
Green Ext Time (p_c), s	0.0	1.5	0.0	3.2	0.0	1.2	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			34.3									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	867	30	46	575	113	61	186	47	191	270	214
Future Volume (veh/h)	151	867	30	46	575	113	61	186	47	191	270	214
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	942	33	50	625	123	66	202	51	208	293	233
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	1075	38	75	700	137	86	812	200	247	707	599
Arrive On Green	0.11	0.31	0.31	0.04	0.24	0.24	0.05	0.29	0.29	0.14	0.38	0.38
Sat Flow, veh/h	1781	3502	123	1781	2961	582	1781	2825	697	1781	1870	1585
Grp Volume(v), veh/h	164	478	497	50	375	373	66	125	128	208	293	233
Grp Sat Flow(s),veh/h/ln	1781	1777	1848	1781	1777	1766	1781	1777	1745	1781	1870	1585
Q Serve(g_s), s	7.2	20.4	20.4	2.2	16.3	16.4	2.9	4.3	4.5	9.1	9.2	8.6
Cycle Q Clear(g_c), s	7.2	20.4	20.4	2.2	16.3	16.4	2.9	4.3	4.5	9.1	9.2	8.6
Prop In Lane	1.00		0.07	1.00		0.33	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	201	545	567	75	420	417	86	511	502	247	707	599
V/C Ratio(X)	0.82	0.88	0.88	0.67	0.89	0.89	0.77	0.25	0.25	0.84	0.41	0.39
Avail Cap(c_a), veh/h	234	553	575	114	433	430	160	511	502	278	707	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.30	0.30	0.30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	26.3	26.3	37.8	29.6	29.6	37.6	21.8	21.9	33.6	18.3	18.1
Incr Delay (d2), s/veh	6.0	5.1	4.9	9.9	19.9	20.4	13.5	1.1	1.2	18.7	1.8	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	8.5	8.8	1.1	8.8	8.8	1.6	1.9	1.9	5.2	4.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	31.3	31.2	47.7	49.4	49.9	51.1	23.0	23.1	52.3	20.1	20.0
LnGrp LOS	D	C	C	D	D	D	D	C	C	D	C	C
Approach Vol, veh/h		1139			798			319			734	
Approach Delay, s/veh		32.6			49.5			28.9			29.2	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.6	27.5	7.9	29.1	8.3	34.7	13.5	23.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	19.5	5.1	24.9	7.2	24.8	10.5	19.5				
Max Q Clear Time (g_c+I1), s	11.1	6.5	4.2	22.4	4.9	11.2	9.2	18.4				
Green Ext Time (p_c), s	0.1	1.1	0.0	1.4	0.0	2.3	0.1	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			35.9									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	→		↰	→		↰	↑↑	↰	↰	↑↑	↰
Traffic Volume (veh/h)	28	18	68	6	1	4	67	383	107	161	354	35
Future Volume (veh/h)	28	18	68	6	1	4	67	383	107	161	354	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	20	74	7	1	4	73	416	116	175	385	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	54	28	103	68	29	115	94	2001	893	167	2147	958
Arrive On Green	0.03	0.08	0.08	0.04	0.09	0.09	0.05	0.56	0.56	0.09	0.60	0.60
Sat Flow, veh/h	1781	349	1290	1781	327	1308	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	30	0	94	7	0	5	73	416	116	175	385	38
Grp Sat Flow(s),veh/h/ln	1781	0	1638	1781	0	1635	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.3	0.0	4.5	0.3	0.0	0.2	3.2	4.6	2.8	7.5	3.8	0.8
Cycle Q Clear(g_c), s	1.3	0.0	4.5	0.3	0.0	0.2	3.2	4.6	2.8	7.5	3.8	0.8
Prop In Lane	1.00		0.79	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	54	0	131	68	0	143	94	2001	893	167	2147	958
V/C Ratio(X)	0.55	0.00	0.72	0.10	0.00	0.03	0.78	0.21	0.13	1.05	0.18	0.04
Avail Cap(c_a), veh/h	125	0	369	401	0	621	134	2001	893	167	2147	958
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	38.2	0.0	35.9	37.2	0.0	33.4	37.4	8.6	8.2	36.3	7.0	6.4
Incr Delay (d2), s/veh	8.5	0.0	7.1	0.7	0.0	0.1	16.7	0.2	0.3	77.8	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.0	0.1	0.0	0.1	1.8	1.6	0.9	6.7	1.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	0.0	43.0	37.8	0.0	33.5	54.1	8.9	8.5	114.0	7.2	6.5
LnGrp LOS	D	A	D	D	A	C	D	A	A	F	A	A
Approach Vol, veh/h		124			12			605				598
Approach Delay, s/veh		43.9			36.0			14.3				38.4
Approach LOS		D			D			B				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	49.6	7.5	10.9	8.7	52.8	6.9	11.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	18.5	18.0	18.0	6.0	20.0	5.6	30.4				
Max Q Clear Time (g_c+I1), s	9.5	6.6	2.3	6.5	5.2	5.8	3.3	2.2				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.3	0.0	2.1	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			28.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	30	0	65	159	26	106	53	411	2	3	337	37
Future Volume (veh/h)	30	0	65	159	26	106	53	411	2	3	337	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	0	71	173	28	115	58	447	2	3	366	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	0	113	213	41	169	81	2060	919	7	1913	853
Arrive On Green	0.06	0.00	0.07	0.12	0.13	0.13	0.05	0.58	0.58	0.00	0.54	0.54
Sat Flow, veh/h	1781	0	1585	1781	320	1314	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	33	0	71	173	0	143	58	447	2	3	366	40
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1634	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.4	0.0	3.5	7.6	0.0	6.7	2.6	4.8	0.0	0.1	4.2	1.0
Cycle Q Clear(g_c), s	1.4	0.0	3.5	7.6	0.0	6.7	2.6	4.8	0.0	0.1	4.2	1.0
Prop In Lane	1.00		1.00	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	113	213	0	211	81	2060	919	7	1913	853
V/C Ratio(X)	0.30	0.00	0.63	0.81	0.00	0.68	0.72	0.22	0.00	0.42	0.19	0.05
Avail Cap(c_a), veh/h	401	0	406	345	0	368	154	2060	919	111	1913	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	35.8	0.0	36.1	34.3	0.0	33.3	37.7	8.1	7.1	39.7	9.5	8.7
Incr Delay (d2), s/veh	1.5	0.0	5.6	7.3	0.0	3.8	11.3	0.2	0.0	33.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.5	3.6	0.0	2.8	1.3	1.6	0.0	0.1	1.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	0.0	41.7	41.6	0.0	37.1	49.0	8.3	7.1	72.9	9.7	8.8
LnGrp LOS	D	A	D	D	A	D	D	A	A	E	A	A
Approach Vol, veh/h		104			316			507			409	
Approach Delay, s/veh		40.3			39.5			13.0			10.1	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	50.9	14.1	10.2	8.1	47.6	9.5	14.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	21.0	15.5	20.5	6.9	19.1	18.0	18.0				
Max Q Clear Time (g_c+I1), s	2.1	6.8	9.6	5.5	4.6	6.2	3.4	8.7				
Green Ext Time (p_c), s	0.0	2.3	0.2	0.3	0.0	1.9	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				20.5								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	55	18	0	113	0	3
Future Vol, veh/h	55	18	0	113	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	20	0	123	0	3

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	40
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	1022
Stage 1	-	-	0	-	-
Stage 2	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	1022
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	1022	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-
HCM Control Delay (s)	8.5	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	92	0	0	52	0	79
Future Vol, veh/h	92	0	0	52	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	100	0	0	57	0	86

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 50
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	- 0	- 0 1008
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 1008
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	1008	-	-	-
HCM Lane V/C Ratio	0.085	-	-	-
HCM Control Delay (s)	8.9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	3	114	0	0	46
Future Vol, veh/h	0	3	114	0	0	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	124	0	0	50

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	62	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	990	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	990	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	990
HCM Lane V/C Ratio	-	-	0.003
HCM Control Delay (s)	-	-	8.6
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	79	40	0	0	191
Future Vol, veh/h	0	79	40	0	0	191
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	86	43	0	0	208

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	22	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	1050	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	1050	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 1050	-
HCM Lane V/C Ratio	-	- 0.082	-
HCM Control Delay (s)	-	- 8.7	-
HCM Lane LOS	-	- A	-
HCM 95th %tile Q(veh)	-	- 0.3	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	3	0	98	105	54
Future Vol, veh/h	0	3	0	98	105	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	0	103	111	57

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	84	-	0	0
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	814	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	814	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	814	-	-
HCM Lane V/C Ratio	-	0.004	-	-
HCM Control Delay (s)	-	9.4	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	79	0	130	104	1
Future Vol, veh/h	0	79	0	130	104	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	83	0	137	109	1

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	55	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	848	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	848	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	848	-	-
HCM Lane V/C Ratio	-	0.098	-	-
HCM Control Delay (s)	-	9.7	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

HCM 6th Signalized Intersection Summary

29: Richton St & Monte Vista Ave

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↑	↗	↙	↕		↗	↕	↗
Traffic Volume (veh/h)	0	0	0	44	0	40	2	956	42	27	933	0
Future Volume (veh/h)	0	0	0	44	0	40	2	956	42	27	933	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	46	0	42	2	1006	44	28	982	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	163	0	398	163	138	539	2111	92	955	3108	0
Arrive On Green	0.00	0.00	0.00	0.09	0.00	0.09	0.61	0.61	0.61	0.61	0.61	0.00
Sat Flow, veh/h	0	1870	0	1781	1870	1585	573	3468	152	1043	5274	0
Grp Volume(v), veh/h	0	0	0	46	0	42	2	515	535	28	982	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	573	1777	1843	521	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	0.7	0.0	0.7	0.1	4.7	4.7	0.4	2.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.7	0.0	0.7	2.8	4.7	4.7	5.2	2.8	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	0	163	0	398	163	138	539	1081	1122	955	3108	0
V/C Ratio(X)	0.00	0.00	0.00	0.12	0.00	0.30	0.00	0.48	0.48	0.03	0.32	0.00
Avail Cap(c_a), veh/h	0	1138	0	1328	1138	965	539	1081	1122	955	3108	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	12.7	0.0	12.7	3.5	3.2	3.2	4.6	2.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	1.2	0.0	1.5	1.5	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.7	0.7	0.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	12.8	0.0	13.9	3.5	4.7	4.6	4.7	3.1	0.0
LnGrp LOS	A	A	A	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		0			88			1052			1010	
Approach Delay, s/veh		0.0			13.3			4.7			3.1	
Approach LOS					B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		7.1		22.5		7.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		6.7		0.0		7.2		2.7				
Green Ext Time (p_c), s		5.2		0.0		5.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				4.3								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↗	↖	↕		↖	↗	↕
Traffic Volume (veh/h)	0	1	0	83	1	79	0	851	49	22	952	0
Future Volume (veh/h)	0	1	0	83	1	79	0	851	49	22	952	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	0	87	1	83	0	896	52	23	1002	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	234	0	410	234	198	233	1991	116	966	2979	0
Arrive On Green	0.00	0.12	0.00	0.12	0.12	0.12	0.00	0.58	0.58	0.58	0.58	0.00
Sat Flow, veh/h	0	1870	0	1416	1870	1585	562	3413	198	1148	5274	0
Grp Volume(v), veh/h	0	1	0	87	1	83	0	466	482	23	1002	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1416	1870	1585	562	1777	1835	574	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	1.5	0.0	4.6	4.6	0.4	3.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	0.0	1.5	0.0	4.6	4.6	4.9	3.1	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	0	234	0	410	234	198	233	1037	1070	966	2979	0
V/C Ratio(X)	0.00	0.00	0.00	0.21	0.00	0.42	0.00	0.45	0.45	0.02	0.34	0.00
Avail Cap(c_a), veh/h	0	1091	0	1059	1091	925	233	1037	1070	966	2979	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	11.8	0.0	12.6	11.8	12.5	0.0	3.6	3.6	5.0	3.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	1.4	0.0	1.4	1.4	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.5	0.0	0.5	0.0	0.8	0.8	0.0	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.8	0.0	12.9	11.8	13.9	0.0	5.0	5.0	5.1	3.6	0.0
LnGrp LOS	A	B	A	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1			171			948			1025	
Approach Delay, s/veh		11.8			13.3			5.0			3.7	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		8.4		22.5		8.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		6.6		2.0		6.9		3.8				
Green Ext Time (p_c), s		4.7		0.0		5.3		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				5.0								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑		↘	↑↑	
Traffic Volume (veh/h)	43	521	111	289	843	64	155	92	267	80	115	79
Future Volume (veh/h)	43	521	111	289	843	64	155	92	267	80	115	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	566	121	314	916	70	168	100	290	87	125	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	333	1837	819	479	1837	819	456	592	528	303	691	444
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	610	3554	1585	845	3554	1585	1171	1777	1585	994	2076	1332
Grp Volume(v), veh/h	47	566	121	314	916	70	168	100	290	87	106	105
Grp Sat Flow(s),veh/h/ln	610	1777	1585	845	1777	1585	1171	1777	1585	994	1777	1631
Q Serve(g_s), s	3.3	5.5	2.4	20.4	10.1	1.3	7.2	2.4	9.0	4.7	2.5	2.8
Cycle Q Clear(g_c), s	13.3	5.5	2.4	25.9	10.1	1.3	9.9	2.4	9.0	13.7	2.5	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	333	1837	819	479	1837	819	456	592	528	303	592	543
V/C Ratio(X)	0.14	0.31	0.15	0.65	0.50	0.09	0.37	0.17	0.55	0.29	0.18	0.19
Avail Cap(c_a), veh/h	348	1925	859	500	1925	859	456	592	528	303	592	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.82	0.82	0.82	0.76	0.76	0.76	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.8	8.3	7.6	15.8	9.4	7.3	17.8	14.1	16.3	21.9	14.2	14.3
Incr Delay (d2), s/veh	0.2	0.1	0.1	2.4	0.2	0.0	1.7	0.5	3.1	2.4	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	0.7	3.7	3.2	0.4	2.0	0.9	3.4	1.2	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.0	8.4	7.7	18.2	9.6	7.4	19.5	14.6	19.4	24.3	14.9	15.1
LnGrp LOS	B	A	A	B	A	A	B	B	B	C	B	B
Approach Vol, veh/h		734			1300			558			298	
Approach Delay, s/veh		8.6			11.5			18.6			17.7	
Approach LOS		A			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.5		35.5		24.5		35.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		11.9		15.3		15.7		27.9				
Green Ext Time (p_c), s		1.7		4.4		0.4		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				12.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

1: Indian Hill Blvd & Base Line Rd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑		↘	↑↑	
Traffic Volume (veh/h)	42	702	147	319	900	72	157	95	246	64	137	70
Future Volume (veh/h)	42	702	147	319	900	72	157	95	246	64	137	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	763	160	347	978	78	171	103	267	70	149	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	2252	1005	466	2252	1005	321	451	402	194	588	285
Arrive On Green	0.63	0.63	0.63	0.63	0.63	0.63	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	575	3554	1585	704	3554	1585	1156	1777	1585	1012	2320	1125
Grp Volume(v), veh/h	46	763	160	347	978	78	171	103	267	70	112	113
Grp Sat Flow(s),veh/h/ln	575	1777	1585	704	1777	1585	1156	1777	1585	1012	1777	1668
Q Serve(g_s), s	3.5	8.0	3.3	36.3	11.1	1.5	11.1	3.7	12.1	5.3	4.0	4.3
Cycle Q Clear(g_c), s	14.6	8.0	3.3	44.3	11.1	1.5	15.4	3.7	12.1	17.4	4.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	375	2252	1005	466	2252	1005	321	451	402	194	451	423
V/C Ratio(X)	0.12	0.34	0.16	0.75	0.43	0.08	0.53	0.23	0.66	0.36	0.25	0.27
Avail Cap(c_a), veh/h	387	2332	1040	481	2332	1040	321	451	402	194	451	423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	6.8	6.0	17.2	7.4	5.6	30.1	23.7	26.8	34.6	23.8	23.9
Incr Delay (d2), s/veh	0.1	0.1	0.1	5.4	0.1	0.0	4.7	0.9	6.4	5.2	1.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.6	1.0	5.8	3.6	0.4	3.4	1.6	5.1	1.6	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.2	6.9	6.0	22.5	7.5	5.7	34.8	24.5	33.2	39.8	25.1	25.4
LnGrp LOS	B	A	A	C	A	A	C	C	C	D	C	C
Approach Vol, veh/h		969			1403			541			295	
Approach Delay, s/veh		7.0			11.1			32.0			28.7	
Approach LOS		A			B			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.8		55.2		24.8		55.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		52.5		18.5		52.5				
Max Q Clear Time (g_c+I1), s		17.4		16.6		19.4		46.3				
Green Ext Time (p_c), s		0.4		7.6		0.0		4.4				
Intersection Summary												
HCM 6th Ctrl Delay				15.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 2: Mills Ave & Base Line Rd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗	↘	↘	↗	↘	↘	↗	↘
Traffic Volume (veh/h)	92	738	110	134	979	153	120	88	97	148	81	167
Future Volume (veh/h)	92	738	110	134	979	153	120	88	97	148	81	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	802	120	146	1064	166	130	96	105	161	88	182
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	1730	771	349	1730	771	554	680	576	547	680	576
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	530	3554	1585	678	3554	1585	1309	1870	1585	1300	1870	1585
Grp Volume(v), veh/h	100	802	120	146	1064	166	130	96	105	161	88	182
Grp Sat Flow(s),veh/h/ln	530	1777	1585	678	1777	1585	1309	1870	1585	1300	1870	1585
Q Serve(g_s), s	10.2	9.0	2.5	10.9	13.2	3.6	4.4	2.1	2.7	5.7	1.9	5.0
Cycle Q Clear(g_c), s	23.4	9.0	2.5	19.9	13.2	3.6	6.3	2.1	2.7	7.8	1.9	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	262	1730	771	349	1730	771	554	680	576	547	680	576
V/C Ratio(X)	0.38	0.46	0.16	0.42	0.62	0.22	0.23	0.14	0.18	0.29	0.13	0.32
Avail Cap(c_a), veh/h	291	1925	859	386	1925	859	554	680	576	547	680	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	0.62	0.62	0.62	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	10.2	8.6	16.8	11.3	8.8	14.9	12.8	13.0	15.4	12.8	13.7
Incr Delay (d2), s/veh	0.9	0.2	0.1	0.5	0.3	0.1	0.8	0.4	0.6	1.4	0.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.0	0.8	1.6	4.4	1.1	1.3	0.9	1.0	1.7	0.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	10.4	8.6	17.3	11.6	8.9	15.7	13.2	13.6	16.8	13.2	15.2
LnGrp LOS	C	B	A	B	B	A	B	B	B	B	B	B
Approach Vol, veh/h		1022			1376			331			431	
Approach Delay, s/veh		11.2			11.9			14.3			15.4	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.3		33.7		26.3		33.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		8.3		25.4		9.8		21.9				
Green Ext Time (p_c), s		0.9		3.8		1.1		6.5				
Intersection Summary												
HCM 6th Ctrl Delay				12.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

2: Mills Ave & Base Line Rd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	114	923	150	182	950	96	186	83	68	87	138	168
Future Volume (veh/h)	114	923	150	182	950	96	186	83	68	87	138	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	1003	163	198	1033	104	202	90	74	95	150	183
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	322	2010	897	333	2010	897	401	553	469	451	553	469
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	546	3554	1585	562	3554	1585	1237	1870	1585	1307	1870	1585
Grp Volume(v), veh/h	124	1003	163	198	1033	104	202	90	74	95	150	183
Grp Sat Flow(s),veh/h/ln	546	1777	1585	562	1777	1585	1237	1870	1585	1307	1870	1585
Q Serve(g_s), s	11.7	11.1	3.2	21.4	11.6	2.0	9.7	2.3	2.2	3.8	4.0	6.0
Cycle Q Clear(g_c), s	23.3	11.1	3.2	32.5	11.6	2.0	13.7	2.3	2.2	6.1	4.0	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	2010	897	333	2010	897	401	553	469	451	553	469
V/C Ratio(X)	0.38	0.50	0.18	0.60	0.51	0.12	0.50	0.16	0.16	0.21	0.27	0.39
Avail Cap(c_a), veh/h	329	2050	914	339	2050	914	401	553	469	451	553	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.70	0.70	0.70	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	8.5	6.8	18.4	8.6	6.6	22.8	16.9	16.9	19.2	17.5	18.2
Incr Delay (d2), s/veh	0.7	0.2	0.1	1.9	0.1	0.0	3.9	0.5	0.6	1.1	1.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.5	0.9	2.6	3.7	0.6	3.1	1.0	0.8	1.2	1.8	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.5	8.7	6.9	20.3	8.8	6.6	26.7	17.5	17.5	20.2	18.7	20.6
LnGrp LOS	B	A	A	C	A	A	C	B	B	C	B	C
Approach Vol, veh/h		1290			1335			366			428	
Approach Delay, s/veh		9.2			10.3			22.6			19.9	
Approach LOS		A			B			C			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.7		41.3		23.7		41.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		37.5		18.5		37.5				
Max Q Clear Time (g_c+I1), s		15.7		25.3		8.1		34.5				
Green Ext Time (p_c), s		0.4		6.9		1.3		2.2				
Intersection Summary												
HCM 6th Ctrl Delay				12.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	762	254	529	889	132	358	139	528	142	119	99
Future Volume (veh/h)	56	762	254	529	889	132	358	139	528	142	119	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	828	276	575	966	143	389	151	574	154	129	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	910	406	634	1406	627	510	568	482	342	422	327
Arrive On Green	0.04	0.26	0.26	0.18	0.40	0.40	0.14	0.30	0.30	0.06	0.22	0.22
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1906	1475
Grp Volume(v), veh/h	61	828	276	575	966	143	389	151	574	154	120	117
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1605
Q Serve(g_s), s	3.1	20.3	14.1	14.7	20.3	5.4	12.5	5.5	27.3	5.1	5.1	5.5
Cycle Q Clear(g_c), s	3.1	20.3	14.1	14.7	20.3	5.4	12.5	5.5	27.3	5.1	5.1	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	78	910	406	634	1406	627	510	568	482	342	394	356
V/C Ratio(X)	0.78	0.91	0.68	0.91	0.69	0.23	0.76	0.27	1.19	0.45	0.30	0.33
Avail Cap(c_a), veh/h	115	928	414	634	1406	627	510	568	482	342	394	356
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	32.5	30.1	36.0	22.6	18.1	23.9	23.7	31.3	25.8	29.2	29.4
Incr Delay (d2), s/veh	16.7	11.7	4.0	17.0	1.4	0.2	6.2	1.1	104.3	0.9	2.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.6	5.5	7.3	7.9	1.8	6.9	2.5	23.5	2.6	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	44.1	34.1	53.0	24.0	18.3	30.2	24.8	135.6	26.7	31.2	31.9
LnGrp LOS	E	D	C	D	C	B	C	C	F	C	C	C
Approach Vol, veh/h		1165			1684			1114				391
Approach Delay, s/veh		42.6			33.4			83.8				29.6
Approach LOS		D			C			F				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	31.8	21.0	27.6	17.0	24.4	8.5	40.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	26.9	16.5	23.5	12.5	19.5	5.8	34.2				
Max Q Clear Time (g_c+I1), s	7.1	29.3	16.7	22.3	14.5	7.5	5.1	22.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	0.9	0.0	5.2				
Intersection Summary												
HCM 6th Ctrl Delay			48.4									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 3: Monte Vista Ave/Padua Ave & Baseline Rd

04/08/2024

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	856	197	408	987	117	229	140	549	133	91	57
Future Volume (veh/h)	56	856	197	408	987	117	229	140	549	133	91	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	930	214	443	1073	127	249	152	597	145	99	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	999	446	511	1369	611	551	588	498	362	554	323
Arrive On Green	0.04	0.28	0.28	0.15	0.39	0.39	0.11	0.31	0.31	0.06	0.26	0.26
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2161	1259
Grp Volume(v), veh/h	61	930	214	443	1073	127	249	152	597	145	80	81
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1644
Q Serve(g_s), s	3.1	22.9	10.1	11.3	23.9	4.8	8.9	5.5	28.3	5.1	3.2	3.5
Cycle Q Clear(g_c), s	3.1	22.9	10.1	11.3	23.9	4.8	8.9	5.5	28.3	5.1	3.2	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.77
Lane Grp Cap(c), veh/h	78	999	446	511	1369	611	551	588	498	362	455	421
V/C Ratio(X)	0.78	0.93	0.48	0.87	0.78	0.21	0.45	0.26	1.20	0.40	0.18	0.19
Avail Cap(c_a), veh/h	115	1007	449	518	1369	611	551	588	498	362	455	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	31.5	26.9	37.5	24.4	18.5	19.5	23.0	30.9	23.2	26.1	26.2
Incr Delay (d2), s/veh	15.9	12.9	0.7	14.2	3.1	0.2	0.5	1.0	106.6	0.7	0.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	10.8	3.6	5.5	9.7	1.7	3.5	2.4	24.6	2.3	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	44.4	27.6	51.7	27.4	18.7	20.0	24.0	137.5	23.9	26.9	27.2
LnGrp LOS	E	D	C	D	C	B	C	C	F	C	C	C
Approach Vol, veh/h		1205			1643			998			306	
Approach Delay, s/veh		42.1			33.3			90.9			25.5	
Approach LOS		D			C			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	32.8	17.8	29.8	14.8	27.6	8.5	39.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	27.9	13.5	25.5	10.3	22.7	5.8	33.2				
Max Q Clear Time (g_c+I1), s	7.1	30.3	13.3	24.9	10.9	5.5	5.1	25.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	0.7	0.0	4.1				
Intersection Summary												
HCM 6th Ctrl Delay			49.1									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp























04/08/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	777	490	77	717	505	172	0	626	107	0	547
Future Volume (veh/h)	146	777	490	77	717	505	172	0	626	107	0	547
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	159	845	533	84	779	549	187	0	680	116	0	595
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	183	1008	449	108	858	383	848	0	0	848	0	0
Arrive On Green	0.10	0.28	0.28	0.06	0.24	0.24	0.48	0.00	0.00	0.48	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	187		1781	116	
Grp Volume(v), veh/h	159	845	533	84	779	549	187	11.6		116	11.1	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	6.6	16.8	21.3	3.5	16.0	18.1	4.6			2.7		
Cycle Q Clear(g_c), s	6.6	16.8	21.3	3.5	16.0	18.1	4.6			2.7		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	183	1008	449	108	858	383	848			848		
V/C Ratio(X)	0.87	0.84	1.19	0.78	0.91	1.44	0.22			0.14		
Avail Cap(c_a), veh/h	183	1008	449	121	858	383	848			848		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	33.2	25.3	26.9	34.7	27.6	28.5	11.5			11.0		
Incr Delay (d2), s/veh	33.3	6.4	104.2	24.7	13.4	210.3	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	4.3	7.2	20.1	2.1	7.7	28.5	1.6			0.9		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.4	31.6	131.0	59.4	41.1	238.7	11.6			11.1		
LnGrp LOS	E	C	F	E	D	F	B			B		
Approach Vol, veh/h		1537			1412							
Approach Delay, s/veh		69.7			119.0							
Approach LOS		E			F							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	40.2		9.0	25.8	40.2		12.2	22.6				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	10.5		5.1	20.7	9.0		7.7	18.1				
Max Q Clear Time (g_c+I1), s	4.7		5.5	23.3	6.6		8.6	20.1				
Green Ext Time (p_c), s	0.1		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			85.7									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary

4: Baseline Rd & SR-210 Ramp






















04/08/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	889	539	46	810	375	122	0	663	73	0	524
Future Volume (veh/h)	176	889	539	46	810	375	122	0	663	73	0	524
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870
Adj Flow Rate, veh/h	191	966	586	50	880	408	133	0	721	79	0	570
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	0	2	2	0	2
Cap, veh/h	225	1275	569	71	967	431	805	0	0	805	0	0
Arrive On Green	0.13	0.36	0.36	0.04	0.27	0.27	0.45	0.00	0.00	0.45	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	133		1781	79	
Grp Volume(v), veh/h	191	966	586	50	880	408	133	14.7		79	14.2	
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	B		1781	B	
Q Serve(g_s), s	9.4	21.5	32.3	2.5	21.6	22.7	4.0			2.3		
Cycle Q Clear(g_c), s	9.4	21.5	32.3	2.5	21.6	22.7	4.0			2.3		
Prop In Lane	1.00		1.00	1.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	225	1275	569	71	967	431	805			805		
V/C Ratio(X)	0.85	0.76	1.03	0.71	0.91	0.95	0.17			0.10		
Avail Cap(c_a), veh/h	228	1275	569	99	967	431	805			805		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Uniform Delay (d), s/veh	38.5	25.4	28.9	42.7	31.7	32.1	14.6			14.2		
Incr Delay (d2), s/veh	24.8	2.7	45.8	12.7	12.3	29.9	0.1			0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	5.5	8.7	18.3	1.3	10.2	11.6	1.5			0.8		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.3	28.1	74.7	55.4	44.0	62.0	14.7			14.2		
LnGrp LOS	E	C	F	E	D	E	B			B		
Approach Vol, veh/h		1743			1338							
Approach Delay, s/veh		47.6			49.9							
Approach LOS		D			D							
Timer - Assigned Phs	1		3	4	5		7	8				
Phs Duration (G+Y+Rc), s	45.1		8.1	36.8	45.1		15.9	29.0				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	6.9		5.0	31.0	8.5		11.5	24.5				
Max Q Clear Time (g_c+I1), s	4.3		4.5	34.3	6.0		11.4	24.7				
Green Ext Time (p_c), s	0.0		0.0	0.0	0.1		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			46.4									
HCM 6th LOS			D									

HCM Signalized Intersection Capacity Analysis

5: Monte Vista Ave & Claremont Blvd

04/08/2024






















													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	271	0	19	1	0	0	18	729	1	1	586	242	
Future Volume (vph)	271	0	19	1	0	0	18	729	1	1	586	242	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5	
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00	
Frt	1.00	1.00	0.85		1.00		1.00	1.00		1.00	1.00	0.85	
Flt Protected	0.95	0.95	1.00		0.95		0.95	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	1681	1612	1504		1770		1770	3539		1770	3539	1583	
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00		0.35	1.00	1.00	
Satd. Flow (perm)	1681	1612	1504		1863		1770	3539		655	3539	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	295	0	21	1	0	0	20	792	1	1	637	263	
RTOR Reduction (vph)	0	121	16	0	0	0	0	0	0	0	0	114	
Lane Group Flow (vph)	147	29	3	0	1	0	20	793	0	1	637	149	
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm	
Protected Phases	4	4			8		5	2			6	6	
Permitted Phases			4	8						6		6	
Actuated Green, G (s)	12.4	12.4	12.4		1.2		3.0	52.9		45.4	45.4	45.4	
Effective Green, g (s)	12.4	12.4	12.4		1.2		3.0	52.9		45.4	45.4	45.4	
Actuated g/C Ratio	0.16	0.16	0.16		0.01		0.04	0.66		0.57	0.57	0.57	
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	260	249	233		27		66	2340		371	2008	898	
v/s Ratio Prot	c0.09	0.02					0.01	c0.22			0.18		
v/s Ratio Perm			0.00		c0.00					0.00		0.09	
v/c Ratio	0.57	0.12	0.01		0.04		0.30	0.34		0.00	0.32	0.17	
Uniform Delay, d1	31.3	29.1	28.6		38.8		37.5	5.9		7.5	9.1	8.3	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	2.8	0.2	0.0		0.6		2.6	0.4		0.0	0.4	0.4	
Delay (s)	34.1	29.3	28.6		39.4		40.1	6.3		7.5	9.5	8.7	
Level of Service	C	C	C		D		D	A		A	A	A	
Approach Delay (s)		31.5			39.4			7.1			9.3		
Approach LOS		C			D			A			A		
Intersection Summary													
HCM 2000 Control Delay			11.9		HCM 2000 Level of Service						B		
HCM 2000 Volume to Capacity ratio			0.40										
Actuated Cycle Length (s)			80.0		Sum of lost time (s)						18.0		
Intersection Capacity Utilization			35.8%		ICU Level of Service						A		
Analysis Period (min)			15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis























5: Monte Vista Ave & Claremont Blvd

04/08/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	277	0	235	4	7	1	222	603	4	2	472	218
Future Volume (vph)	277	0	235	4	7	1	222	603	4	2	472	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.95	0.91	0.95		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.94	0.85		0.99		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.97	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1543	1504		1815		1770	3536		1770	3539	1583
Flt Permitted	0.95	0.97	1.00		1.00		0.95	1.00		0.40	1.00	1.00
Satd. Flow (perm)	1681	1543	1504		1843		1770	3536		747	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	301	0	255	4	8	1	241	655	4	2	513	237
RTOR Reduction (vph)	0	117	145	0	1	0	0	0	0	0	0	166
Lane Group Flow (vph)	193	70	31	0	12	0	241	659	0	2	513	71
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4			8		5	2			6	6
Permitted Phases			4	8						6		6
Actuated Green, G (s)	14.3	14.3	14.3		1.5		22.3	50.7		23.9	23.9	23.9
Effective Green, g (s)	14.3	14.3	14.3		1.5		22.3	50.7		23.9	23.9	23.9
Actuated g/C Ratio	0.18	0.18	0.18		0.02		0.28	0.63		0.30	0.30	0.30
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	300	275	268		34		493	2240		223	1057	472
v/s Ratio Prot	c0.11	0.05					c0.14	0.19			c0.14	
v/s Ratio Perm			0.02		c0.01					0.00		0.04
v/c Ratio	0.64	0.25	0.12		0.35		0.49	0.29		0.01	0.49	0.15
Uniform Delay, d1	30.5	28.3	27.6		38.8		24.1	6.6		19.7	23.0	20.6
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.7	0.5	0.2		6.2		0.8	0.3		0.1	1.6	0.7
Delay (s)	35.2	28.7	27.8		45.0		24.9	6.9		19.8	24.6	21.3
Level of Service	D	C	C		D		C	A		B	C	C
Approach Delay (s)		30.7			45.0			11.7			23.5	
Approach LOS		C			D			B			C	
Intersection Summary												
HCM 2000 Control Delay			20.7				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			18.0		
Intersection Capacity Utilization			53.3%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												
























HCM 6th Signalized Intersection Summary
 6: Foothill Blvd & Indian Hill Blvd

04/08/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	720	252	166	705	144	284	380	162	202	356	110
Future Volume (veh/h)	103	720	252	166	705	144	284	380	162	202	356	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	783	274	180	766	157	309	413	176	220	387	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	746	261	194	1132	505	319	629	265	256	418	354
Arrive On Green	0.08	0.29	0.29	0.11	0.32	0.32	0.18	0.26	0.26	0.14	0.22	0.22
Sat Flow, veh/h	1781	2582	903	1781	3554	1585	1781	2436	1026	1781	1870	1585
Grp Volume(v), veh/h	112	539	518	180	766	157	309	300	289	220	387	120
Grp Sat Flow(s),veh/h/ln	1781	1777	1708	1781	1777	1585	1781	1777	1686	1781	1870	1585
Q Serve(g_s), s	5.6	26.0	26.0	9.0	16.9	6.7	15.5	13.6	13.8	10.9	18.2	5.7
Cycle Q Clear(g_c), s	5.6	26.0	26.0	9.0	16.9	6.7	15.5	13.6	13.8	10.9	18.2	5.7
Prop In Lane	1.00		0.53	1.00		1.00	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	141	513	493	194	1132	505	319	459	435	256	418	354
V/C Ratio(X)	0.79	1.05	1.05	0.93	0.68	0.31	0.97	0.65	0.66	0.86	0.93	0.34
Avail Cap(c_a), veh/h	172	513	493	194	1132	505	319	459	435	305	418	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	40.7	32.0	32.0	39.8	26.6	23.2	36.7	29.8	29.9	37.6	34.2	29.4
Incr Delay (d2), s/veh	18.6	53.4	54.4	44.6	1.6	0.3	42.1	7.1	7.8	16.3	26.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	18.0	17.5	6.2	6.9	2.4	10.2	6.5	6.3	5.8	11.1	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	85.4	86.4	84.4	28.3	23.5	78.8	36.9	37.7	54.0	60.3	31.6
LnGrp LOS	E	F	F	F	C	C	E	D	D	D	E	C
Approach Vol, veh/h		1169			1103			898			727	
Approach Delay, s/veh		83.3			36.7			51.6			53.7	
Approach LOS		F			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	27.7	14.3	30.5	20.6	24.6	11.6	33.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.4	20.8	9.8	26.0	16.1	20.1	8.7	27.1				
Max Q Clear Time (g_c+I1), s	12.9	15.8	11.0	28.0	17.5	20.2	7.6	18.9				
Green Ext Time (p_c), s	0.2	1.6	0.0	0.0	0.0	0.0	0.0	3.4				
Intersection Summary												
HCM 6th Ctrl Delay			57.3									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary
6: Foothill Blvd & Indian Hill Blvd

04/08/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	779	234	147	768	135	339	374	154	173	372	144
Future Volume (veh/h)	95	779	234	147	768	135	339	374	154	173	372	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	847	254	160	835	147	368	407	167	188	404	157
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	813	244	172	1159	517	371	776	315	220	430	365
Arrive On Green	0.07	0.30	0.30	0.19	0.65	0.65	0.21	0.31	0.31	0.12	0.23	0.23
Sat Flow, veh/h	1781	2695	807	1781	3554	1585	1781	2467	1000	1781	1870	1585
Grp Volume(v), veh/h	103	558	543	160	835	147	368	292	282	188	404	157
Grp Sat Flow(s),veh/h/ln	1781	1777	1725	1781	1777	1585	1781	1777	1690	1781	1870	1585
Q Serve(g_s), s	6.3	33.2	33.2	9.7	17.0	4.4	22.7	14.8	15.1	11.4	23.3	9.3
Cycle Q Clear(g_c), s	6.3	33.2	33.2	9.7	17.0	4.4	22.7	14.8	15.1	11.4	23.3	9.3
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	128	536	521	172	1159	517	371	559	532	220	430	365
V/C Ratio(X)	0.80	1.04	1.04	0.93	0.72	0.28	0.99	0.52	0.53	0.85	0.94	0.43
Avail Cap(c_a), veh/h	154	536	521	172	1159	517	371	559	532	332	430	365
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	50.3	38.4	38.4	44.0	15.8	13.7	43.5	30.9	31.0	47.2	41.6	36.2
Incr Delay (d2), s/veh	21.9	49.9	50.9	49.3	2.2	0.3	44.6	3.5	3.8	10.8	27.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	21.2	20.8	6.1	4.6	1.4	14.4	6.8	6.6	5.7	13.9	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	88.3	89.3	93.3	18.1	13.9	88.1	34.4	34.8	58.0	68.6	39.3
LnGrp LOS	E	F	F	F	B	B	F	C	C	E	E	D
Approach Vol, veh/h		1204			1142			942			749	
Approach Delay, s/veh		87.4			28.1			55.5			59.8	
Approach LOS		F			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.1	39.1	15.1	37.7	27.4	29.8	12.4	40.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	20.5	27.7	10.6	33.2	22.9	25.3	9.5	34.3				
Max Q Clear Time (g_c+I1), s	13.4	17.1	11.7	35.2	24.7	25.3	8.3	19.0				
Green Ext Time (p_c), s	0.3	2.5	0.0	0.0	0.0	0.0	0.0	5.3				
Intersection Summary												
HCM 6th Ctrl Delay			58.0									
HCM 6th LOS			E									

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗		↔			↔	
Traffic Vol, veh/h	44	1004	54	71	941	11	0	0	102	0	0	45
Future Vol, veh/h	44	1004	54	71	941	11	0	0	102	0	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	1091	59	77	1023	12	0	0	111	0	0	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1035	0	0	1150	0	0	1853	2376	546	1819	2423	512
Stage 1	-	-	-	-	-	-	1187	1187	-	1177	1177	-
Stage 2	-	-	-	-	-	-	666	1189	-	642	1246	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	667	-	-	603	-	-	46	34	482	48	32	507
Stage 1	-	-	-	-	-	-	200	260	-	203	263	-
Stage 2	-	-	-	-	-	-	415	260	-	429	244	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	667	-	-	603	-	-	35	28	482	32	26	507
Mov Cap-2 Maneuver	-	-	-	-	-	-	35	28	-	32	26	-
Stage 1	-	-	-	-	-	-	186	241	-	188	229	-
Stage 2	-	-	-	-	-	-	327	227	-	307	226	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.8			14.7			12.9		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	482	667	-	-	603	-	-	507
HCM Lane V/C Ratio	0.23	0.072	-	-	0.128	-	-	0.096
HCM Control Delay (s)	14.7	10.8	-	-	11.8	-	-	12.9
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0.4	-	-	0.3

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	42	1176	62	90	1107	23	2	0	130	0	0	44
Future Vol, veh/h	42	1176	62	90	1107	23	2	0	130	0	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	95	-	180	75	-	92	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	1278	67	98	1203	25	2	0	141	0	0	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1228	0	0	1345	0	0	2168	2794	639	2130	2836	602
Stage 1	-	-	-	-	-	-	1370	1370	-	1399	1399	-
Stage 2	-	-	-	-	-	-	798	1424	-	731	1437	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	563	-	-	508	-	-	26	18	419	28	17	443
Stage 1	-	-	-	-	-	-	154	212	-	148	206	-
Stage 2	-	-	-	-	-	-	346	200	-	379	197	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	563	-	-	508	-	-	19	13	419	15	13	443
Mov Cap-2 Maneuver	-	-	-	-	-	-	19	13	-	15	13	-
Stage 1	-	-	-	-	-	-	141	195	-	136	166	-
Stage 2	-	-	-	-	-	-	249	161	-	231	181	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	1	25.3	14.1
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	318	563	-	-	508	-	-	443
HCM Lane V/C Ratio	0.451	0.081	-	-	0.193	-	-	0.108
HCM Control Delay (s)	25.3	12	-	-	13.8	-	-	14.1
HCM Lane LOS	D	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	2.2	0.3	-	-	0.7	-	-	0.4

HCM 6th Signalized Intersection Summary

8: Dartmouth Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	9	1073	34	35	1003	10	40	5	24	27	8	0
Future Volume (veh/h)	9	1073	34	35	1003	10	40	5	24	27	8	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1166	37	38	1090	11	43	5	26	29	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	1566	699	209	1589	16	423	67	210	550	156	0
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.40	0.40	0.40	0.40	0.40	0.00
Sat Flow, veh/h	512	3554	1585	465	3604	36	809	170	530	1100	395	0
Grp Volume(v), veh/h	10	1166	37	38	537	564	74	0	0	38	0	0
Grp Sat Flow(s),veh/h/ln	512	1777	1585	465	1777	1864	1508	0	0	1494	0	0
Q Serve(g_s), s	0.9	15.0	0.7	4.1	13.3	13.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.2	15.0	0.7	19.1	13.3	13.3	1.5	0.0	0.0	0.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.58		0.35	0.76		0.00
Lane Grp Cap(c), veh/h	232	1566	699	209	783	821	700	0	0	707	0	0
V/C Ratio(X)	0.04	0.74	0.05	0.18	0.69	0.69	0.11	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	253	1712	764	228	856	898	700	0	0	707	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.54	0.54	0.54	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.0	12.8	8.8	20.7	12.3	12.3	10.5	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.6	0.0	0.2	1.1	1.1	0.3	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.9	0.2	0.4	4.3	4.4	0.6	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	14.5	8.8	21.0	13.4	13.4	10.8	0.0	0.0	10.4	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1213			1139			74			38	
Approach Delay, s/veh		14.3			13.7			10.8			10.4	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.3		28.7		26.3		28.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		26.5		19.5		26.5				
Max Q Clear Time (g_c+I1), s		3.5		17.0		2.7		21.1				
Green Ext Time (p_c), s		0.3		5.3		0.1		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				13.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 8: Dartmouth Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑			↕			↕	
Traffic Volume (veh/h)	13	1102	37	31	1201	10	20	2	22	10	4	0
Future Volume (veh/h)	13	1102	37	31	1201	10	20	2	22	10	4	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	1198	40	34	1305	11	22	2	24	11	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	1625	725	212	1652	14	328	58	291	514	170	0
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.00
Sat Flow, veh/h	417	3554	1585	450	3611	30	614	153	767	1056	449	0
Grp Volume(v), veh/h	14	1198	40	34	642	674	48	0	0	15	0	0
Grp Sat Flow(s),veh/h/ln	417	1777	1585	450	1777	1865	1533	0	0	1505	0	0
Q Serve(g_s), s	1.6	15.2	0.8	3.7	16.9	16.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.5	15.2	0.8	18.9	16.9	16.9	1.0	0.0	0.0	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	0.46		0.50	0.73		0.00
Lane Grp Cap(c), veh/h	194	1625	725	212	813	853	677	0	0	684	0	0
V/C Ratio(X)	0.07	0.74	0.06	0.16	0.79	0.79	0.07	0.00	0.00	0.02	0.00	0.00
Avail Cap(c_a), veh/h	211	1777	793	232	888	932	677	0	0	684	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.46	0.46	0.46	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.5	12.2	8.3	19.9	12.7	12.7	10.9	0.0	0.0	10.7	0.0	0.0
Incr Delay (d2), s/veh	0.2	1.5	0.0	0.2	2.1	2.0	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.8	0.2	0.3	5.5	5.7	0.4	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	13.7	8.3	20.1	14.8	14.7	11.1	0.0	0.0	10.8	0.0	0.0
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1252			1350			48			15	
Approach Delay, s/veh		13.6			14.9			11.1			10.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.3		29.7		25.3		29.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		27.5		18.5		27.5				
Max Q Clear Time (g_c+I1), s		3.0		20.5		2.3		20.9				
Green Ext Time (p_c), s		0.1		4.3		0.0		4.3				
Intersection Summary												
HCM 6th Ctrl Delay				14.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖		↖	↖	↖	↖	↖
Traffic Volume (veh/h)	203	991	31	22	813	121	11	10	43	138	7	208
Future Volume (veh/h)	203	991	31	22	813	121	11	10	43	138	7	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	221	1077	34	24	884	132	12	11	47	150	8	226
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	1358	43	46	953	425	242	202	411	185	784	665
Arrive On Green	0.14	0.39	0.39	0.03	0.27	0.27	0.26	0.26	0.26	0.10	0.42	0.42
Sat Flow, veh/h	1781	3516	111	1781	3554	1585	669	779	1585	1781	1870	1585
Grp Volume(v), veh/h	221	544	567	24	884	132	23	0	47	150	8	226
Grp Sat Flow(s),veh/h/ln	1781	1777	1850	1781	1777	1585	1448	0	1585	1781	1870	1585
Q Serve(g_s), s	9.7	21.7	21.7	1.1	19.4	5.3	0.0	0.0	1.8	6.6	0.2	7.7
Cycle Q Clear(g_c), s	9.7	21.7	21.7	1.1	19.4	5.3	0.7	0.0	1.8	6.6	0.2	7.7
Prop In Lane	1.00		0.06	1.00		1.00	0.52		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	686	715	46	953	425	444	0	411	185	784	665
V/C Ratio(X)	0.86	0.79	0.79	0.52	0.93	0.31	0.05	0.00	0.11	0.81	0.01	0.34
Avail Cap(c_a), veh/h	256	686	715	114	955	426	444	0	411	189	784	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	0.80	0.80	0.80	1.00	0.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	33.5	21.7	21.7	38.5	28.5	23.4	22.2	0.0	22.6	35.1	13.5	15.7
Incr Delay (d2), s/veh	16.2	3.9	3.7	7.1	12.4	0.3	0.2	0.0	0.6	21.8	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	8.8	9.2	0.5	9.2	1.9	0.3	0.0	0.7	3.8	0.1	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	25.6	25.4	45.6	40.9	23.7	22.4	0.0	23.2	56.9	13.6	17.1
LnGrp LOS	D	C	C	D	D	C	C	A	C	E	B	B
Approach Vol, veh/h		1332			1040			70			384	
Approach Delay, s/veh		29.5			38.8			22.9			32.6	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	12.8	25.3	6.6	35.4		38.0	16.0	26.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	20.5	5.1	27.9		33.5	11.5	21.5				
Max Q Clear Time (g_c+I1), s	8.6	3.8	3.1	23.7		9.7	11.7	21.4				
Green Ext Time (p_c), s	0.0	0.2	0.0	2.5		0.7	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay				33.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

9: Foothill Blvd & Mills Ave

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘	↗		↗	↗	↗	↗	↗
Traffic Volume (veh/h)	153	994	16	40	1017	158	13	4	21	87	1	177
Future Volume (veh/h)	153	994	16	40	1017	158	13	4	21	87	1	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	166	1080	17	43	1105	172	14	4	23	95	1	192
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	1478	23	69	1201	536	330	85	405	121	711	602
Arrive On Green	0.11	0.41	0.41	0.04	0.34	0.34	0.26	0.26	0.26	0.07	0.38	0.38
Sat Flow, veh/h	1781	3581	56	1781	3554	1585	979	332	1585	1781	1870	1585
Grp Volume(v), veh/h	166	536	561	43	1105	172	18	0	23	95	1	192
Grp Sat Flow(s),veh/h/ln	1781	1777	1860	1781	1777	1585	1311	0	1585	1781	1870	1585
Q Serve(g_s), s	7.3	20.3	20.3	1.9	23.9	6.4	0.0	0.0	0.9	4.2	0.0	6.8
Cycle Q Clear(g_c), s	7.3	20.3	20.3	1.9	23.9	6.4	0.6	0.0	0.9	4.2	0.0	6.8
Prop In Lane	1.00		0.03	1.00		1.00	0.78		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	734	768	69	1201	536	415	0	405	121	711	602
V/C Ratio(X)	0.82	0.73	0.73	0.63	0.92	0.32	0.04	0.00	0.06	0.78	0.00	0.32
Avail Cap(c_a), veh/h	212	734	768	114	1222	545	415	0	405	122	711	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	0.66	0.66	0.66	1.00	0.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	34.7	19.7	19.7	37.9	25.4	19.7	22.4	0.0	22.5	36.7	15.4	17.5
Incr Delay (d2), s/veh	14.8	2.4	2.3	6.1	7.9	0.2	0.2	0.0	0.3	24.0	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	7.9	8.3	0.9	10.5	2.2	0.3	0.0	0.3	2.6	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.4	22.2	22.1	44.0	33.4	19.9	22.6	0.0	22.8	60.7	15.4	18.7
LnGrp LOS	D	C	C	D	C	B	C	A	C	E	B	B
Approach Vol, veh/h		1263			1320			41			288	
Approach Delay, s/veh		25.7			32.0			22.7			32.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	9.9	24.9	7.6	37.5		34.9	13.6	31.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	19.5	5.1	31.9		29.5	9.5	27.5				
Max Q Clear Time (g_c+I1), s	6.2	2.9	3.9	22.3		8.8	9.3	25.9				
Green Ext Time (p_c), s	0.0	0.1	0.0	4.6		0.6	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay				29.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	141	836	177	215	735	53	116	270	178	62	208	84
Future Volume (veh/h)	141	836	177	215	735	53	116	270	178	62	208	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	153	909	192	234	799	58	126	293	193	67	226	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	1036	462	281	1210	540	769	677	434	312	814	318
Arrive On Green	0.11	0.29	0.29	0.16	0.34	0.34	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	2061	2077	1331	910	2497	975
Grp Volume(v), veh/h	153	909	192	234	799	58	126	249	237	67	159	158
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1031	1777	1631	910	1777	1695
Q Serve(g_s), s	5.0	14.6	5.9	7.6	11.5	1.5	2.9	6.6	6.9	3.8	4.0	4.2
Cycle Q Clear(g_c), s	5.0	14.6	5.9	7.6	11.5	1.5	7.1	6.6	6.9	10.6	4.0	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.82	1.00		0.58
Lane Grp Cap(c), veh/h	194	1036	462	281	1210	540	769	579	532	312	579	552
V/C Ratio(X)	0.79	0.88	0.42	0.83	0.66	0.11	0.16	0.43	0.45	0.21	0.27	0.29
Avail Cap(c_a), veh/h	246	1066	476	282	1210	540	769	579	532	312	579	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	20.2	17.1	24.5	16.8	13.5	17.7	15.9	15.9	20.1	15.0	15.0
Incr Delay (d2), s/veh	8.0	5.3	0.4	18.9	1.3	0.1	0.5	2.3	2.7	1.6	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	6.0	1.9	4.4	4.2	0.5	0.7	2.7	2.6	0.8	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	25.5	17.5	43.4	18.2	13.6	18.1	18.2	18.6	21.7	16.1	16.3
LnGrp LOS	C	C	B	D	B	B	B	B	B	C	B	B
Approach Vol, veh/h		1254			1091			612			384	
Approach Delay, s/veh		25.3			23.3			18.3			17.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.1	13.9	22.0		24.1	11.0	24.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	9.5	18.0		19.0	8.3	19.2				
Max Q Clear Time (g_c+I1), s		9.1	9.6	16.6		12.6	7.0	13.5				
Green Ext Time (p_c), s		2.5	0.0	0.9		1.1	0.0	2.6				
Intersection Summary												
HCM 6th Ctrl Delay				22.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

10: Claremont Blvd & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	912	117	101	811	47	161	221	94	72	220	108
Future Volume (veh/h)	120	912	117	101	811	47	161	221	94	72	220	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	991	127	110	882	51	175	240	102	78	239	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	1151	514	141	1102	491	832	912	376	433	870	412
Arrive On Green	0.09	0.32	0.32	0.08	0.31	0.31	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1989	2453	1012	1039	2340	1108
Grp Volume(v), veh/h	130	991	127	110	882	51	175	172	170	78	180	176
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	995	1777	1688	1039	1777	1671
Q Serve(g_s), s	4.3	15.7	3.5	3.6	13.7	1.4	4.1	4.0	4.2	3.4	4.2	4.4
Cycle Q Clear(g_c), s	4.3	15.7	3.5	3.6	13.7	1.4	8.5	4.0	4.2	7.6	4.2	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		0.66
Lane Grp Cap(c), veh/h	166	1151	514	141	1102	491	832	661	628	433	661	621
V/C Ratio(X)	0.78	0.86	0.25	0.78	0.80	0.10	0.21	0.26	0.27	0.18	0.27	0.28
Avail Cap(c_a), veh/h	223	1214	542	193	1155	515	832	661	628	433	661	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	19.0	14.9	27.1	19.0	14.8	16.2	13.1	13.2	15.8	13.2	13.2
Incr Delay (d2), s/veh	8.3	4.2	0.2	13.0	4.0	0.1	0.6	0.9	1.1	0.9	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	6.1	1.1	1.9	5.4	0.4	0.9	1.5	1.5	0.8	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	23.3	15.1	40.1	23.0	14.9	16.8	14.1	14.2	16.7	14.2	14.4
LnGrp LOS	C	C	B	D	C	B	B	B	B	B	B	B
Approach Vol, veh/h		1248			1043			517			434	
Approach Delay, s/veh		23.6			24.4			15.0			14.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.8	9.3	23.9		26.8	10.1	23.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	6.5	20.5		19.5	7.5	19.5				
Max Q Clear Time (g_c+I1), s		10.5	5.6	17.7		9.6	6.3	15.7				
Green Ext Time (p_c), s		1.9	0.0	1.8		1.6	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

11: Monte Vista Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑↗	
Traffic Volume (veh/h)	41	753	279	259	686	169	276	519	192	139	450	69
Future Volume (veh/h)	41	753	279	259	686	169	276	519	192	139	450	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	793	294	273	722	178	291	546	202	146	474	73
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	952	425	275	1085	484	275	1040	464	253	1283	194
Arrive On Green	0.04	0.27	0.27	0.08	0.31	0.31	0.08	0.29	0.29	0.07	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4477	676
Grp Volume(v), veh/h	43	793	294	273	722	178	291	546	202	146	358	189
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1749
Q Serve(g_s), s	1.5	13.2	10.5	5.0	11.1	5.5	5.0	8.1	6.5	2.6	5.3	5.4
Cycle Q Clear(g_c), s	1.5	13.2	10.5	5.0	11.1	5.5	5.0	8.1	6.5	2.6	5.3	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	75	952	425	275	1085	484	275	1040	464	253	975	501
V/C Ratio(X)	0.57	0.83	0.69	0.99	0.67	0.37	1.06	0.52	0.44	0.58	0.37	0.38
Avail Cap(c_a), veh/h	142	1018	454	275	1085	484	275	1040	464	275	975	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	21.7	20.7	28.9	19.0	17.1	28.9	18.6	18.0	28.2	17.9	17.9
Incr Delay (d2), s/veh	6.8	5.7	4.1	52.1	1.5	0.5	70.4	1.9	3.0	2.5	1.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.6	3.9	3.9	4.2	1.8	4.6	3.1	2.5	1.0	1.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	27.4	24.8	81.0	20.6	17.5	99.3	20.5	21.0	30.7	18.9	20.1
LnGrp LOS	D	C	C	F	C	B	F	C	C	C	B	C
Approach Vol, veh/h		1130			1173			1039			693	
Approach Delay, s/veh		27.1			34.2			42.6			21.7	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	22.9	9.5	21.3	9.5	22.5	7.1	23.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.6	10.1	7.0	15.2	7.0	7.4	3.5	13.1				
Green Ext Time (p_c), s	0.0	2.5	0.0	1.6	0.0	2.3	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay				32.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 11: Monte Vista Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑↗	
Traffic Volume (veh/h)	148	811	153	144	735	232	135	435	148	137	455	61
Future Volume (veh/h)	148	811	153	144	735	232	135	435	148	137	455	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	156	854	161	152	774	244	142	458	156	144	479	64
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	984	439	257	963	430	253	1023	456	254	1315	173
Arrive On Green	0.08	0.28	0.28	0.07	0.27	0.27	0.07	0.29	0.29	0.07	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	4567	600
Grp Volume(v), veh/h	156	854	161	152	774	244	142	458	156	144	355	188
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1702	1762
Q Serve(g_s), s	5.0	14.3	5.1	2.7	12.7	8.3	2.5	6.6	4.9	2.5	5.2	5.3
Cycle Q Clear(g_c), s	5.0	14.3	5.1	2.7	12.7	8.3	2.5	6.6	4.9	2.5	5.2	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.34
Lane Grp Cap(c), veh/h	142	984	439	257	963	430	253	1023	456	254	980	508
V/C Ratio(X)	1.10	0.87	0.37	0.59	0.80	0.57	0.56	0.45	0.34	0.57	0.36	0.37
Avail Cap(c_a), veh/h	142	1023	456	276	1023	456	276	1023	456	276	980	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	21.5	18.2	28.0	21.2	19.6	28.0	18.2	17.6	28.0	17.7	17.7
Incr Delay (d2), s/veh	103.3	7.9	0.5	3.0	4.5	1.5	2.1	1.4	2.0	2.3	1.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	6.3	1.7	1.1	5.2	2.9	1.0	2.5	1.8	1.0	1.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	132.1	29.4	18.7	31.0	25.7	21.1	30.2	19.6	19.6	30.3	18.7	19.8
LnGrp LOS	F	C	B	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		1171			1170			756			687	
Approach Delay, s/veh		41.6			25.5			21.6			21.5	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	22.5	9.1	21.8	9.1	22.5	9.5	21.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.5	8.6	4.7	16.3	4.5	7.3	7.0	14.7				
Green Ext Time (p_c), s	0.0	2.3	0.0	1.0	0.0	2.3	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				29.0								
HCM 6th LOS				C								

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	853	447	253	849	0	474	0	295	1	0	0
Future Volume (vph)	14	853	447	253	849	0	474	0	295	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.97	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		0.95	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1581	1504		3362	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1581	1504		3539	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	898	471	266	894	0	499	0	311	1	0	0
RTOR Reduction (vph)	0	0	248	0	0	0	0	107	183	0	0	0
Lane Group Flow (vph)	15	898	223	266	894	0	279	169	72	0	1	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	447	425		55	
v/s Ratio Prot	0.01	c0.25		c0.08	c0.25		c0.17	0.11				
v/s Ratio Perm			0.14						0.05		c0.00	
v/c Ratio	0.62	0.74	0.41	0.99	0.62		0.59	0.38	0.17		0.02	
Uniform Delay, d1	31.4	18.6	16.1	29.5	15.1		19.7	18.4	17.3		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	41.4	2.5	0.5	52.7	0.8		5.2	2.4	0.9		0.1	
Delay (s)	72.7	21.0	16.6	82.2	15.9		25.0	20.9	18.2		31.1	
Level of Service	E	C	B	F	B		C	C	B		C	
Approach Delay (s)		20.1			31.1			21.4			31.1	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Central Ave & Foothill Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	925	300	243	839	0	365	0	283	0	0	2
Future Volume (vph)	13	925	300	243	839	0	365	0	283	0	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.95	0.91	0.95		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.95	0.85		0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.97	1.00		1.00	
Satd. Flow (prot)	1770	3539	1583	3433	3539		1681	1554	1504		3008	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.97	1.00		1.00	
Satd. Flow (perm)	1770	3539	1583	3433	3539		1681	1554	1504		3008	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	974	316	256	883	0	384	0	298	0	0	2
RTOR Reduction (vph)	0	0	153	0	0	0	0	107	154	0	2	0
Lane Group Flow (vph)	14	974	163	256	883	0	234	126	61	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm		NA	
Protected Phases	7	4		3	8		2	2				6
Permitted Phases			4						2	6		
Actuated Green, G (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Effective Green, g (s)	0.9	21.9	21.9	5.0	26.0		18.1	18.1	18.1		1.0	
Actuated g/C Ratio	0.01	0.34	0.34	0.08	0.41		0.28	0.28	0.28		0.02	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	24	1211	541	268	1437		475	439	425		47	
v/s Ratio Prot	0.01	c0.28		c0.07	c0.25		c0.14	0.08			c0.00	
v/s Ratio Perm			0.10						0.04			
v/c Ratio	0.58	0.80	0.30	0.96	0.61		0.49	0.29	0.14		0.00	
Uniform Delay, d1	31.4	19.1	15.4	29.4	15.0		19.1	17.9	17.2		31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	31.3	4.0	0.3	42.4	0.8		3.6	1.6	0.7		0.0	
Delay (s)	62.7	23.1	15.8	71.8	15.8		22.7	19.6	17.9		31.0	
Level of Service	E	C	B	E	B		C	B	B		C	
Approach Delay (s)		21.7			28.4			20.1			31.0	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	23.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	73.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	9	70	4	137	86	38	7	396	142	36	402	8
Future Vol, veh/h	9	70	4	137	86	38	7	396	142	36	402	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	76	4	149	93	41	8	430	154	39	437	9

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1110	1120	442	1083	1047	507	446	0	0	584	0	0
Stage 1	520	520	-	523	523	-	-	-	-	-	-	-
Stage 2	590	600	-	560	524	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	187	206	615	195	228	566	1114	-	-	991	-	-
Stage 1	539	532	-	537	530	-	-	-	-	-	-	-
Stage 2	494	490	-	513	530	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	111	197	615	~ 131	218	566	1114	-	-	991	-	-
Mov Cap-2 Maneuver	111	197	-	~ 131	218	-	-	-	-	-	-	-
Stage 1	535	511	-	533	526	-	-	-	-	-	-	-
Stage 2	374	487	-	416	509	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	41	\$ 359.7	0.1	0.7
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	187	173	991	-
HCM Lane V/C Ratio	0.007	-	-	0.482	1.64	0.039	-
HCM Control Delay (s)	8.3	-	-	41\$ 359.7	8.8	-	-
HCM Lane LOS	A	-	-	E	F	A	-
HCM 95th %tile Q(veh)	0	-	-	2.3	19.3	0.1	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
13: 6th St & Indian Hill Blvd

04/08/2024

Intersection

Int Delay, s/veh 127.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	6	0	3	98	10	114	6	828	108	97	728	0
Future Vol, veh/h	6	0	3	98	10	114	6	828	108	97	728	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	52	-	-	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	3	107	11	124	7	900	117	105	791	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2041	2032	791	1976	1974	959	791	0	0	1017	0	0
Stage 1	1001	1001	-	973	973	-	-	-	-	-	-	-
Stage 2	1040	1031	-	1003	1001	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	42	57	390	~46	62	312	829	-	-	682	-	-
Stage 1	293	321	-	303	330	-	-	-	-	-	-	-
Stage 2	278	310	-	292	321	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	19	48	390	~40	52	312	829	-	-	682	-	-
Mov Cap-2 Maneuver	19	48	-	~40	52	-	-	-	-	-	-	-
Stage 1	291	272	-	301	327	-	-	-	-	-	-	-
Stage 2	161	308	-	245	272	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	191.3	\$ 1136.9	0.1	1.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	829	-	-	28 74	682	-	-
HCM Lane V/C Ratio	0.008	-	-	0.349 3.261	0.155	-	-
HCM Control Delay (s)	9.4	-	-	191.3 \$ 1136.9	11.2	-	-
HCM Lane LOS	A	-	-	F F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	1.1 24.6	0.5	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	23.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	58	274	6	68	269	14	8	173	71	17	172	58
Future Vol, veh/h	58	274	6	68	269	14	8	173	71	17	172	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	298	7	74	292	15	9	188	77	18	187	63
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	25.9	27.3	18.9	18.8
HCM LOS	D	D	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	17%	19%	7%
Vol Thru, %	69%	81%	77%	70%
Vol Right, %	28%	2%	4%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	252	338	351	247
LT Vol	8	58	68	17
Through Vol	173	274	269	172
RT Vol	71	6	14	58
Lane Flow Rate	274	367	382	268
Geometry Grp	1	1	1	1
Degree of Util (X)	0.551	0.715	0.738	0.544
Departure Headway (Hd)	7.246	7.005	6.961	7.296
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	496	514	519	491
Service Time	5.323	5.078	5.032	5.374
HCM Lane V/C Ratio	0.552	0.714	0.736	0.546
HCM Control Delay	18.9	25.9	27.3	18.8
HCM Lane LOS	C	D	D	C
HCM 95th-tile Q	3.3	5.7	6.2	3.2

Intersection	
Intersection Delay, s/veh	42.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	61	282	65	89	250	15	83	177	57	12	150	56
Future Vol, veh/h	61	282	65	89	250	15	83	177	57	12	150	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	66	307	71	97	272	16	90	192	62	13	163	61
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	58.4	42.8	34.7	22.2
HCM LOS	F	E	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	15%	25%	6%
Vol Thru, %	56%	69%	71%	69%
Vol Right, %	18%	16%	4%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	317	408	354	218
LT Vol	83	61	89	12
Through Vol	177	282	250	150
RT Vol	57	65	15	56
Lane Flow Rate	345	443	385	237
Geometry Grp	1	1	1	1
Degree of Util (X)	0.78	0.951	0.854	0.563
Departure Headway (Hd)	8.151	7.717	7.988	8.546
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	444	470	454	419
Service Time	6.205	5.767	6.039	6.633
HCM Lane V/C Ratio	0.777	0.943	0.848	0.566
HCM Control Delay	34.7	58.4	42.8	22.2
HCM Lane LOS	D	F	E	C
HCM 95th-tile Q	6.8	11.5	8.6	3.4

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	296	16	26	331	5	18	0	9	2	5	0
Future Vol, veh/h	3	296	16	26	331	5	18	0	9	2	5	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	322	17	28	360	5	20	0	10	2	5	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.6	11.4	8.8	8.7
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	1%	7%	29%
Vol Thru, %	0%	94%	91%	71%
Vol Right, %	33%	5%	1%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	315	362	7
LT Vol	18	3	26	2
Through Vol	0	296	331	5
RT Vol	9	16	5	0
Lane Flow Rate	29	342	393	8
Geometry Grp	1	1	1	1
Degree of Util (X)	0.045	0.419	0.48	0.012
Departure Headway (Hd)	5.461	4.406	4.389	5.628
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	654	818	822	634
Service Time	3.507	2.429	2.411	3.68
HCM Lane V/C Ratio	0.044	0.418	0.478	0.013
HCM Control Delay	8.8	10.6	11.4	8.7
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.1	2.1	2.6	0

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	358	17	15	354	4	14	0	11	2	4	3
Future Vol, veh/h	6	358	17	15	354	4	14	0	11	2	4	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	389	18	16	385	4	15	0	12	2	4	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12	11.9	8.9	8.7
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	56%	2%	4%	22%
Vol Thru, %	0%	94%	95%	44%
Vol Right, %	44%	4%	1%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	381	373	9
LT Vol	14	6	15	2
Through Vol	0	358	354	4
RT Vol	11	17	4	3
Lane Flow Rate	27	414	405	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.042	0.51	0.502	0.015
Departure Headway (Hd)	5.553	4.43	4.46	5.586
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	642	816	807	638
Service Time	3.61	2.452	2.485	3.647
HCM Lane V/C Ratio	0.042	0.507	0.502	0.016
HCM Control Delay	8.9	12	11.9	8.7
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.1	2.9	2.9	0

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6st St/W Arrow Rt

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↘		↗	↖	↗	↗	↖↗		↗	↖↗	
Traffic Volume (veh/h)	105	323	56	181	375	108	66	407	167	67	321	120
Future Volume (veh/h)	105	323	56	181	375	108	66	407	167	67	321	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	340	59	191	395	114	69	428	176	71	338	126
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	424	370	64	417	438	371	297	587	239	249	608	223
Arrive On Green	0.24	0.24	0.24	0.23	0.23	0.23	0.05	0.24	0.24	0.05	0.24	0.24
Sat Flow, veh/h	1781	1552	269	1781	1870	1585	1781	2464	1003	1781	2546	933
Grp Volume(v), veh/h	111	0	399	191	395	114	69	307	297	71	234	230
Grp Sat Flow(s),veh/h/ln	1781	0	1822	1781	1870	1585	1781	1777	1690	1781	1777	1702
Q Serve(g_s), s	3.8	0.0	16.1	7.0	15.5	4.5	2.2	12.0	12.3	2.2	8.7	9.0
Cycle Q Clear(g_c), s	3.8	0.0	16.1	7.0	15.5	4.5	2.2	12.0	12.3	2.2	8.7	9.0
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.59	1.00		0.55
Lane Grp Cap(c), veh/h	424	0	434	417	438	371	297	423	402	249	424	407
V/C Ratio(X)	0.26	0.00	0.92	0.46	0.90	0.31	0.23	0.73	0.74	0.29	0.55	0.57
Avail Cap(c_a), veh/h	424	0	434	424	445	378	324	423	402	275	424	407
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	28.1	24.8	28.1	23.9	20.5	26.5	26.6	21.0	25.2	25.3
Incr Delay (d2), s/veh	0.3	0.0	24.6	0.8	21.0	0.5	0.4	10.4	11.4	0.6	5.1	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	9.3	2.9	9.2	1.7	0.9	5.9	5.8	0.9	4.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	52.7	25.6	49.1	24.3	20.8	36.9	38.0	21.6	30.3	30.9
LnGrp LOS	C	A	D	C	D	C	C	D	D	C	C	C
Approach Vol, veh/h		510			700			673			535	
Approach Delay, s/veh		46.4			38.7			35.8			29.4	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	22.5		22.5	8.3	22.5		22.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	4.2	14.3		18.1	4.2	11.0		17.5				
Green Ext Time (p_c), s	0.0	1.2		0.0	0.0	1.5		0.2				

Intersection Summary

HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
 16: Claremont Blvd & 6th St/W Arrow Rt

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	356	50	227	334	48	40	271	165	90	381	98
Future Volume (veh/h)	87	356	50	227	334	48	40	271	165	90	381	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	375	53	239	352	51	42	285	174	95	401	103
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	430	387	55	390	409	347	287	517	307	312	729	185
Arrive On Green	0.24	0.24	0.24	0.22	0.22	0.22	0.04	0.24	0.24	0.06	0.26	0.26
Sat Flow, veh/h	1781	1603	227	1781	1870	1585	1781	2145	1273	1781	2805	713
Grp Volume(v), veh/h	92	0	428	239	352	51	42	235	224	95	252	252
Grp Sat Flow(s),veh/h/ln	1781	0	1830	1781	1870	1585	1781	1777	1641	1781	1777	1742
Q Serve(g_s), s	3.1	0.0	17.3	9.0	13.5	1.9	1.3	8.6	9.0	2.9	9.1	9.3
Cycle Q Clear(g_c), s	3.1	0.0	17.3	9.0	13.5	1.9	1.3	8.6	9.0	2.9	9.1	9.3
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.78	1.00		0.41
Lane Grp Cap(c), veh/h	430	0	441	390	409	347	287	429	396	312	462	453
V/C Ratio(X)	0.21	0.00	0.97	0.61	0.86	0.15	0.15	0.55	0.57	0.30	0.55	0.56
Avail Cap(c_a), veh/h	430	0	441	430	451	382	337	429	396	329	462	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	0.0	28.0	26.3	28.1	23.5	20.2	24.8	24.9	20.0	23.8	23.9
Incr Delay (d2), s/veh	0.2	0.0	35.0	2.2	14.4	0.2	0.2	5.0	5.8	0.5	4.6	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	11.1	3.9	7.4	0.7	0.5	3.9	3.9	1.2	4.1	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	63.0	28.5	42.5	23.7	20.5	29.7	30.7	20.5	28.4	28.7
LnGrp LOS	C	A	E	C	D	C	C	C	C	C	C	C
Approach Vol, veh/h		520			642			501			599	
Approach Delay, s/veh		55.9			35.8			29.4			27.3	
Approach LOS		E			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	22.5		22.5	7.4	23.9		20.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0		18.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s	4.9	11.0		19.3	3.3	11.3		15.5				
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	1.6		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				36.7								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↗	↖↗	↕↗		↖	↕↗	
Traffic Volume (veh/h)	213	273	71	47	323	50	131	719	34	29	794	184
Future Volume (veh/h)	213	273	71	47	323	50	131	719	34	29	794	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	224	287	75	49	340	53	138	757	36	31	836	194
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	733	188	84	418	354	264	1748	83	60	1274	294
Arrive On Green	0.09	0.26	0.26	0.05	0.22	0.22	0.08	0.35	0.35	0.03	0.31	0.31
Sat Flow, veh/h	1781	2799	719	1781	1870	1585	3456	4995	237	1781	4146	956
Grp Volume(v), veh/h	224	180	182	49	340	53	138	515	278	31	685	345
Grp Sat Flow(s),veh/h/ln	1781	1777	1741	1781	1870	1585	1728	1702	1828	1781	1702	1698
Q Serve(g_s), s	5.0	4.9	5.0	1.6	10.1	1.6	2.2	6.8	6.8	1.0	10.2	10.3
Cycle Q Clear(g_c), s	5.0	4.9	5.0	1.6	10.1	1.6	2.2	6.8	6.8	1.0	10.2	10.3
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.13	1.00		0.56
Lane Grp Cap(c), veh/h	152	466	456	84	418	354	264	1191	639	60	1046	522
V/C Ratio(X)	1.47	0.39	0.40	0.59	0.81	0.15	0.52	0.43	0.43	0.51	0.66	0.66
Avail Cap(c_a), veh/h	152	546	535	152	575	487	295	1191	639	152	1046	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.8	17.7	17.8	27.4	21.6	18.3	26.0	14.6	14.6	27.8	17.6	17.6
Incr Delay (d2), s/veh	244.8	0.5	0.6	6.4	6.3	0.2	1.6	1.1	2.1	6.6	3.2	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	1.8	1.8	0.7	4.5	0.5	0.9	2.3	2.7	0.5	3.8	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	271.6	18.3	18.4	33.7	27.8	18.5	27.6	15.7	16.7	34.5	20.8	24.1
LnGrp LOS	F	B	B	C	C	B	C	B	B	C	C	C
Approach Vol, veh/h		586			442			931			1061	
Approach Delay, s/veh		115.1			27.4			17.8			22.3	
Approach LOS		F			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	25.0	7.2	19.8	9.0	22.5	9.5	17.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.0	8.8	3.6	7.0	4.2	12.3	7.0	12.1				
Green Ext Time (p_c), s	0.0	3.1	0.0	1.4	0.0	2.9	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				39.7								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary
 17: Monte Vista Ave & Arrow Rt

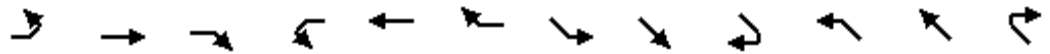
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖↗	↖↗		↖	↗	↖↗
Traffic Volume (veh/h)	134	454	56	79	393	58	85	518	123	75	651	112
Future Volume (veh/h)	134	454	56	79	393	58	85	518	123	75	651	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	478	59	83	414	61	89	545	129	79	685	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	885	109	111	481	408	222	1248	289	108	1308	223
Arrive On Green	0.08	0.28	0.28	0.06	0.26	0.26	0.06	0.30	0.30	0.06	0.30	0.30
Sat Flow, veh/h	1781	3185	391	1781	1870	1585	3456	4143	959	1781	4392	748
Grp Volume(v), veh/h	141	266	271	83	414	61	89	446	228	79	529	274
Grp Sat Flow(s),veh/h/ln	1781	1777	1800	1781	1870	1585	1728	1702	1698	1781	1702	1736
Q Serve(g_s), s	4.8	7.7	7.7	2.8	12.8	1.8	1.5	6.4	6.6	2.6	7.8	7.9
Cycle Q Clear(g_c), s	4.8	7.7	7.7	2.8	12.8	1.8	1.5	6.4	6.6	2.6	7.8	7.9
Prop In Lane	1.00		0.22	1.00		1.00	1.00		0.56	1.00		0.43
Lane Grp Cap(c), veh/h	147	494	500	111	481	408	222	1026	512	108	1014	517
V/C Ratio(X)	0.96	0.54	0.54	0.75	0.86	0.15	0.40	0.43	0.45	0.73	0.52	0.53
Avail Cap(c_a), veh/h	147	529	536	147	557	472	286	1026	512	147	1014	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	18.5	18.6	27.9	21.4	17.3	27.2	17.0	17.0	27.9	17.6	17.7
Incr Delay (d2), s/veh	60.9	0.9	1.0	13.6	11.6	0.2	1.2	1.3	2.8	11.2	1.9	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	2.8	2.9	1.5	6.3	0.6	0.6	2.3	2.5	1.3	2.8	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.5	19.5	19.5	41.5	33.0	17.5	28.3	18.3	19.8	39.1	19.6	21.5
LnGrp LOS	F	B	B	D	C	B	C	B	B	D	B	C
Approach Vol, veh/h		678			558			763			882	
Approach Delay, s/veh		33.8			32.6			19.9			21.9	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	22.7	8.3	21.3	8.4	22.5	9.5	20.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.6	8.6	4.8	9.7	3.5	9.9	6.8	14.8				
Green Ext Time (p_c), s	0.0	2.7	0.0	1.8	0.0	3.0	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				26.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

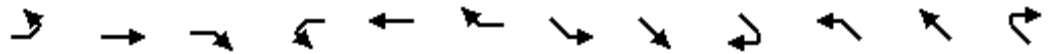
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	30	23	44	28	23	57	35	793	15	20	781	10
Future Volume (veh/h)	30	23	44	28	23	57	35	793	15	20	781	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	25	48	30	25	62	38	862	16	22	849	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	38	380	74	42	380	65	1039	880	44	1001	13
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.04	0.56	0.56	0.02	0.54	0.54
Sat Flow, veh/h	0	157	1585	0	173	1585	1781	1870	1585	1781	1842	24
Grp Volume(v), veh/h	58	0	48	55	0	62	38	862	16	22	0	860
Grp Sat Flow(s),veh/h/ln	158	0	1585	173	0	1585	1781	1870	1585	1781	0	1866
Q Serve(g_s), s	0.0	0.0	1.8	0.0	0.0	2.3	1.6	28.5	0.3	0.9	0.0	29.3
Cycle Q Clear(g_c), s	18.0	0.0	1.8	18.0	0.0	2.3	1.6	28.5	0.3	0.9	0.0	29.3
Prop In Lane	0.57		1.00	0.55		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	113	0	380	116	0	380	65	1039	880	44	0	1014
V/C Ratio(X)	0.51	0.00	0.13	0.48	0.00	0.16	0.59	0.83	0.02	0.50	0.00	0.85
Avail Cap(c_a), veh/h	113	0	380	116	0	380	121	1039	880	119	0	1014
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	22.3	24.5	0.0	22.5	35.6	13.7	7.5	36.1	0.0	14.5
Incr Delay (d2), s/veh	3.9	0.0	0.1	3.0	0.0	0.2	8.1	7.7	0.0	8.7	0.0	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.7	0.8	0.0	0.9	0.8	12.8	0.1	0.5	0.0	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	0.0	22.5	27.5	0.0	22.7	43.7	21.4	7.5	44.8	0.0	23.3
LnGrp LOS	C	A	C	C	A	C	D	C	A	D	A	C
Approach Vol, veh/h		106			117			916				882
Approach Delay, s/veh		26.7			25.0			22.1				23.8
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	45.3		22.5	6.3	46.2		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	38.4		18.0	5.0	38.5		18.0				
Max Q Clear Time (g_c+I1), s	3.6	31.3		20.0	2.9	30.5		20.0				
Green Ext Time (p_c), s	0.0	3.6		0.0	0.0	4.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			23.2									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 18: Indian Hill Blvd & Harrison Ave

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕	↗	↗	↕	↗	↗	↗	↗
Traffic Volume (veh/h)	45	19	42	17	27	49	48	728	41	20	832	9
Future Volume (veh/h)	45	19	42	17	27	49	48	728	41	20	832	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	21	46	18	29	53	52	791	45	22	904	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	20	357	62	74	357	76	1089	923	43	1040	12
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.04	0.58	0.58	0.02	0.56	0.56
Sat Flow, veh/h	0	89	1585	0	330	1585	1781	1870	1585	1781	1846	20
Grp Volume(v), veh/h	70	0	46	47	0	53	52	791	45	22	0	914
Grp Sat Flow(s),veh/h/ln	89	0	1585	330	0	1585	1781	1870	1585	1781	0	1867
Q Serve(g_s), s	0.0	0.0	1.9	0.0	0.0	2.1	2.3	24.5	1.0	1.0	0.0	33.5
Cycle Q Clear(g_c), s	18.0	0.0	1.9	18.0	0.0	2.1	2.3	24.5	1.0	1.0	0.0	33.5
Prop In Lane	0.70		1.00	0.38		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	97	0	357	137	0	357	76	1089	923	43	0	1052
V/C Ratio(X)	0.73	0.00	0.13	0.34	0.00	0.15	0.68	0.73	0.05	0.51	0.00	0.87
Avail Cap(c_a), veh/h	97	0	357	137	0	357	114	1089	923	111	0	1052
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	24.7	26.0	0.0	24.9	37.7	12.1	7.2	38.6	0.0	14.9
Incr Delay (d2), s/veh	23.5	0.0	0.2	1.5	0.0	0.2	10.2	4.2	0.1	9.1	0.0	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.7	0.8	0.0	0.8	1.2	10.4	0.3	0.5	0.0	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	0.0	24.9	27.5	0.0	25.0	47.9	16.4	7.3	47.6	0.0	24.7
LnGrp LOS	E	A	C	C	A	C	D	B	A	D	A	C
Approach Vol, veh/h		116			100			888				936
Approach Delay, s/veh		45.2			26.2			17.7				25.2
Approach LOS		D			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	49.6		22.5	6.4	51.1		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	43.4		18.0	5.0	43.5		18.0				
Max Q Clear Time (g_c+I1), s	4.3	35.5		20.0	3.0	26.5		20.0				
Green Ext Time (p_c), s	0.0	4.2		0.0	0.0	5.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	50	82	142	50	108	112	899	187	44	807	86
Future Volume (veh/h)	32	50	82	142	50	108	112	899	187	44	807	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	54	89	154	54	117	122	977	203	48	877	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	322	273	264	91	196	294	1195	1013	265	1039	110
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.05	0.64	0.64	0.04	0.62	0.62
Sat Flow, veh/h	1214	1870	1585	1245	526	1139	1781	1870	1585	1781	1662	176
Grp Volume(v), veh/h	35	54	89	154	0	171	122	977	203	48	0	970
Grp Sat Flow(s),veh/h/ln	1214	1870	1585	1245	0	1665	1781	1870	1585	1781	0	1839
Q Serve(g_s), s	2.5	2.2	4.4	10.8	0.0	8.5	2.1	35.5	4.8	0.8	0.0	37.7
Cycle Q Clear(g_c), s	11.0	2.2	4.4	13.0	0.0	8.5	2.1	35.5	4.8	0.8	0.0	37.7
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	174	322	273	264	0	287	294	1195	1013	265	0	1149
V/C Ratio(X)	0.20	0.17	0.33	0.58	0.00	0.60	0.42	0.82	0.20	0.18	0.00	0.84
Avail Cap(c_a), veh/h	208	374	317	298	0	333	308	1195	1013	295	0	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.89	0.89	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.4	31.8	32.7	37.3	0.0	34.4	15.0	12.3	6.7	12.5	0.0	13.4
Incr Delay (d2), s/veh	0.6	0.2	0.7	2.3	0.0	2.2	0.8	5.6	0.4	0.3	0.0	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.0	1.8	3.4	0.0	3.6	1.2	14.4	1.5	0.4	0.0	16.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	32.0	33.4	39.6	0.0	36.5	15.9	17.9	7.1	12.8	0.0	21.1
LnGrp LOS	D	C	C	D	A	D	B	B	A	B	A	C
Approach Vol, veh/h		178			325			1302			1018	
Approach Delay, s/veh		34.2			38.0			16.0			20.7	
Approach LOS		C			D			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	62.0		20.0	9.3	60.7		20.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	53.5		18.0	5.5	53.0		18.0				
Max Q Clear Time (g_c+I1), s	2.8	37.5		13.0	4.1	39.7		15.0				
Green Ext Time (p_c), s	0.0	7.8		0.3	0.0	6.6		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				21.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

19: Indian Hill Blvd & 1st St

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷		↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	55	83	115	135	106	143	141	678	214	125	683	88
Future Volume (veh/h)	55	83	115	135	106	143	141	678	214	125	683	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	90	125	147	115	155	153	737	233	136	742	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	186	425	360	316	164	221	296	991	840	338	858	111
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.06	0.53	0.53	0.06	0.53	0.53
Sat Flow, veh/h	1109	1870	1585	1166	722	973	1781	1870	1585	1781	1623	210
Grp Volume(v), veh/h	60	90	125	147	0	270	153	737	233	136	0	838
Grp Sat Flow(s),veh/h/ln	1109	1870	1585	1166	0	1695	1781	1870	1585	1781	0	1833
Q Serve(g_s), s	3.9	2.9	5.0	8.8	0.0	11.0	2.9	22.9	6.1	2.5	0.0	29.8
Cycle Q Clear(g_c), s	14.9	2.9	5.0	11.7	0.0	11.0	2.9	22.9	6.1	2.5	0.0	29.8
Prop In Lane	1.00		1.00	1.00		0.57	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	186	425	360	316	0	385	296	991	840	338	0	969
V/C Ratio(X)	0.32	0.21	0.35	0.47	0.00	0.70	0.52	0.74	0.28	0.40	0.00	0.86
Avail Cap(c_a), veh/h	200	449	380	330	0	407	313	991	840	347	0	969
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.92	0.92	0.92	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.5	23.5	24.3	28.3	0.0	26.6	14.5	13.7	9.7	11.3	0.0	15.3
Incr Delay (d2), s/veh	1.0	0.2	0.6	1.1	0.0	5.0	1.3	4.7	0.8	0.8	0.0	10.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.3	1.9	2.5	0.0	4.8	1.2	9.7	2.1	0.9	0.0	13.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	23.8	24.9	29.3	0.0	31.6	15.8	18.3	10.5	12.1	0.0	25.5
LnGrp LOS	C	C	C	C	A	C	B	B	B	B	A	C
Approach Vol, veh/h		275			417			1123				974
Approach Delay, s/veh		26.6			30.8			16.4				23.6
Approach LOS		C			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	44.2		21.5	9.3	44.2		21.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	38.4		18.0	5.5	38.0		18.0				
Max Q Clear Time (g_c+I1), s	4.5	24.9		16.9	4.9	31.8		13.7				
Green Ext Time (p_c), s	0.0	5.1		0.1	0.0	3.2		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				22.1								
HCM 6th LOS				C								

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗		↕			↕	
Traffic Vol, veh/h	94	148	57	17	151	40	62	148	36	31	151	85
Future Vol, veh/h	94	148	57	17	151	40	62	148	36	31	151	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	161	62	18	164	43	67	161	39	34	164	92
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	12	12.4	16.3	16.6
HCM LOS	B	B	C	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	25%	100%	0%	0%	100%	0%	0%	12%
Vol Thru, %	60%	0%	100%	0%	0%	100%	0%	57%
Vol Right, %	15%	0%	0%	100%	0%	0%	100%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	246	94	148	57	17	151	40	267
LT Vol	62	94	0	0	17	0	0	31
Through Vol	148	0	148	0	0	151	0	151
RT Vol	36	0	0	57	0	0	40	85
Lane Flow Rate	267	102	161	62	18	164	43	290
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.506	0.212	0.311	0.107	0.039	0.325	0.077	0.531
Departure Headway (Hd)	6.81	7.472	6.956	6.234	7.654	7.138	6.414	6.589
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	529	481	516	575	468	504	558	549
Service Time	4.545	5.211	4.695	3.973	5.397	4.88	4.157	4.324
HCM Lane V/C Ratio	0.505	0.212	0.312	0.108	0.038	0.325	0.077	0.528
HCM Control Delay	16.3	12.2	12.8	9.7	10.7	13.3	9.7	16.6
HCM Lane LOS	C	B	B	A	B	B	A	C
HCM 95th-tile Q	2.8	0.8	1.3	0.4	0.1	1.4	0.2	3.1

Intersection	
Intersection Delay, s/veh	44.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑	↖	↖	↑	↗		↕			↕	
Traffic Vol, veh/h	55	302	85	55	278	101	50	156	52	120	218	45
Future Vol, veh/h	55	302	85	55	278	101	50	156	52	120	218	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	328	92	60	302	110	54	170	57	130	237	49
Number of Lanes	1	1	1	1	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	32.5	27.7	32.4	84.8
HCM LOS	D	D	D	F

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	19%	100%	0%	0%	100%	0%	0%	31%
Vol Thru, %	60%	0%	100%	0%	0%	100%	0%	57%
Vol Right, %	20%	0%	0%	100%	0%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	258	55	302	85	55	278	101	383
LT Vol	50	55	0	0	55	0	0	120
Through Vol	156	0	302	0	0	278	0	218
RT Vol	52	0	0	85	0	0	101	45
Lane Flow Rate	280	60	328	92	60	302	110	416
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.714	0.156	0.809	0.212	0.157	0.75	0.253	1.036
Departure Headway (Hd)	9.402	9.78	9.25	8.507	9.84	9.309	8.565	8.963
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	387	369	394	425	366	390	422	408
Service Time	7.102	7.48	6.95	6.207	7.54	7.009	6.265	6.631
HCM Lane V/C Ratio	0.724	0.163	0.832	0.216	0.164	0.774	0.261	1.02
HCM Control Delay	32.4	14.3	41.2	13.5	14.4	35.2	14.1	84.8
HCM Lane LOS	D	B	E	B	B	E	B	F
HCM 95th-tile Q	5.4	0.5	7.2	0.8	0.6	6	1	13.5

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	2	89	4	1	5	79	545	4	2	449	109
Future Volume (veh/h)	106	2	89	4	1	5	79	545	4	2	449	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	2	97	4	1	5	86	592	4	2	488	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	180	152	18	5	20	632	2527	17	628	2482	1107
Arrive On Green	0.10	0.10	0.10	0.01	0.01	0.01	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1781	1870	1585	1439	360	1585	814	3618	24	822	3554	1585
Grp Volume(v), veh/h	115	2	97	5	0	5	86	291	305	2	488	118
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1798	0	1585	814	1777	1866	822	1777	1585
Q Serve(g_s), s	4.4	0.1	4.1	0.2	0.0	0.2	2.9	4.1	4.1	0.1	3.4	1.7
Cycle Q Clear(g_c), s	4.4	0.1	4.1	0.2	0.0	0.2	6.3	4.1	4.1	4.2	3.4	1.7
Prop In Lane	1.00		1.00	0.80		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	171	180	152	23	0	20	632	1241	1303	628	2482	1107
V/C Ratio(X)	0.67	0.01	0.64	0.22	0.00	0.25	0.14	0.23	0.23	0.00	0.20	0.11
Avail Cap(c_a), veh/h	461	484	410	462	0	408	632	1241	1303	628	2482	1107
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	30.6	28.6	30.5	34.2	0.0	34.2	4.8	3.8	3.8	4.6	3.7	3.4
Incr Delay (d2), s/veh	4.5	0.0	4.3	4.8	0.0	6.4	0.4	0.4	0.4	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	1.7	0.1	0.0	0.1	0.4	1.0	1.1	0.0	0.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	28.6	34.8	39.0	0.0	40.6	5.2	4.3	4.2	4.6	3.8	3.6
LnGrp LOS	D	C	C	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		214			10			682			608	
Approach Delay, s/veh		34.9			39.8			4.4			3.8	
Approach LOS		C			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		53.4		11.2		53.4		5.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.4		18.1		20.4		18.0				
Max Q Clear Time (g_c+I1), s		8.3		6.4		6.2		2.2				
Green Ext Time (p_c), s		3.1		0.5		2.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			8.7									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 21: E 1st St/Huntington Dr & Claremont Blvd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	4	249	4	0	5	112	296	1	5	482	188
Future Volume (veh/h)	168	4	249	4	0	5	112	296	1	5	482	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	4	271	4	0	5	122	322	1	5	524	204
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	361	379	322	20	0	18	483	2154	7	687	2107	940
Arrive On Green	0.20	0.20	0.20	0.01	0.00	0.01	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	727	3634	11	1057	3554	1585
Grp Volume(v), veh/h	183	4	271	4	0	5	122	157	166	5	524	204
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	727	1777	1868	1057	1777	1585
Q Serve(g_s), s	6.4	0.1	11.5	0.2	0.0	0.2	6.7	2.8	2.8	0.1	4.9	4.2
Cycle Q Clear(g_c), s	6.4	0.1	11.5	0.2	0.0	0.2	11.7	2.8	2.8	2.9	4.9	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	361	379	322	20	0	18	483	1053	1108	687	2107	940
V/C Ratio(X)	0.51	0.01	0.84	0.20	0.00	0.28	0.25	0.15	0.15	0.01	0.25	0.22
Avail Cap(c_a), veh/h	458	481	408	458	0	408	483	1053	1108	687	2107	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	24.8	22.3	26.8	34.3	0.0	34.3	9.6	6.4	6.4	7.0	6.8	6.7
Incr Delay (d2), s/veh	1.1	0.0	12.2	4.6	0.0	7.9	1.3	0.3	0.3	0.0	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	5.2	0.1	0.0	0.1	1.0	0.9	0.9	0.0	1.5	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	22.3	39.0	38.9	0.0	42.2	10.9	6.7	6.7	7.0	7.0	7.1
LnGrp LOS	C	C	D	D	A	D	B	A	A	A	A	A
Approach Vol, veh/h		458			9			445			733	
Approach Delay, s/veh		33.6			40.7			7.8			7.1	
Approach LOS		C			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.0		18.7		46.0		5.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		18.0		20.5		18.0				
Max Q Clear Time (g_c+I1), s		13.7		13.5		6.9		2.2				
Green Ext Time (p_c), s		1.4		0.7		3.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			14.8									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

22: Indian Hill Blvd & Arrow Hwy

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	224	628	222	141	486	197	187	869	357	257	746	189
Future Volume (veh/h)	224	628	222	141	486	197	187	869	357	257	746	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	683	241	153	528	214	203	945	388	279	811	205
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	1096	489	229	1096	489	317	1925	859	343	1522	385
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	875	3554	1585	758	3554	1585	555	3554	1585	593	2809	710
Grp Volume(v), veh/h	243	683	241	153	528	214	203	945	388	279	513	503
Grp Sat Flow(s),veh/h/ln	875	1777	1585	758	1777	1585	555	1777	1585	593	1777	1743
Q Serve(g_s), s	11.3	9.9	7.4	8.6	7.2	6.5	21.3	10.0	8.9	22.5	11.2	11.2
Cycle Q Clear(g_c), s	18.5	9.9	7.4	18.5	7.2	6.5	32.5	10.0	8.9	32.5	11.2	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	284	1096	489	229	1096	489	317	1925	859	343	962	944
V/C Ratio(X)	0.86	0.62	0.49	0.67	0.48	0.44	0.64	0.49	0.45	0.81	0.53	0.53
Avail Cap(c_a), veh/h	284	1096	489	229	1096	489	317	1925	859	343	962	944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	0.52	0.52	0.52
Uniform Delay (d), s/veh	26.2	17.8	16.9	26.9	16.9	16.6	19.6	8.6	8.3	21.0	8.9	8.9
Incr Delay (d2), s/veh	21.7	1.1	0.8	6.4	0.3	0.5	9.5	0.9	1.7	10.6	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	3.8	2.6	2.5	2.7	2.2	3.4	3.3	2.8	4.8	3.7	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	18.9	17.7	33.3	17.1	17.1	29.1	9.5	10.1	31.6	10.0	10.0
LnGrp LOS	D	B	B	C	B	B	C	A	B	C	A	A
Approach Vol, veh/h		1167			895			1536			1295	
Approach Delay, s/veh		24.7			19.9			12.2			14.6	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		37.0		23.0		37.0		23.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.5		18.5		32.5		18.5				
Max Q Clear Time (g_c+I1), s		34.5		20.5		34.5		20.5				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 22: Indian Hill Blvd & Arrow Hwy

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	203	1101	171	142	568	193	192	698	410	256	757	216
Future Volume (veh/h)	203	1101	171	142	568	193	192	698	410	256	757	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	221	1197	186	154	617	210	209	759	446	278	823	235
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	381	1421	634	205	1421	634	235	1421	634	327	1091	311
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	806	3554	1585	468	3554	1585	533	3554	1585	706	2728	779
Grp Volume(v), veh/h	221	1197	186	154	617	210	209	759	446	278	536	522
Grp Sat Flow(s),veh/h/ln	806	1777	1585	468	1777	1585	533	1777	1585	706	1777	1730
Q Serve(g_s), s	12.3	13.7	3.6	4.3	5.7	4.1	6.3	7.3	10.6	10.7	11.7	11.7
Cycle Q Clear(g_c), s	18.0	13.7	3.6	18.0	5.7	4.1	18.0	7.3	10.6	18.0	11.7	11.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	381	1421	634	205	1421	634	235	1421	634	327	711	692
V/C Ratio(X)	0.58	0.84	0.29	0.75	0.43	0.33	0.89	0.53	0.70	0.85	0.75	0.75
Avail Cap(c_a), veh/h	381	1421	634	205	1421	634	235	1421	634	327	711	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	16.3	12.2	9.2	21.9	9.8	9.3	21.4	10.3	11.3	19.3	11.6	11.6
Incr Delay (d2), s/veh	2.2	4.8	0.3	13.9	0.2	0.3	35.8	1.4	6.4	15.0	4.4	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	5.1	1.0	2.3	1.8	1.2	4.3	2.5	4.0	4.0	4.4	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	17.0	9.4	35.8	10.0	9.6	57.2	11.7	17.7	34.2	16.0	16.1
LnGrp LOS	B	B	A	D	B	A	E	B	B	C	B	B
Approach Vol, veh/h		1604			981			1414			1336	
Approach Delay, s/veh		16.3			14.0			20.3			19.8	
Approach LOS		B			B			C			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		20.0		20.0		20.0		20.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	1105	51	27	733	98	48	51	42	95	57	79
Future Volume (veh/h)	71	1105	51	27	733	98	48	51	42	95	57	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	1201	55	29	797	107	52	55	46	103	62	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	1490	68	200	1356	182	264	272	189	676	728	617
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	617	3460	158	442	3148	423	430	698	485	1294	1870	1585
Grp Volume(v), veh/h	77	616	640	29	450	454	153	0	0	103	62	86
Grp Sat Flow(s),veh/h/ln	617	1777	1842	442	1777	1794	1613	0	0	1294	1870	1585
Q Serve(g_s), s	5.4	15.1	15.1	3.1	9.6	9.6	0.0	0.0	0.0	0.0	1.0	1.8
Cycle Q Clear(g_c), s	15.1	15.1	15.1	18.2	9.6	9.6	2.9	0.0	0.0	1.9	1.0	1.8
Prop In Lane	1.00		0.09	1.00		0.24	0.34		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	291	765	793	200	765	773	724	0	0	676	728	617
V/C Ratio(X)	0.26	0.81	0.81	0.14	0.59	0.59	0.21	0.00	0.00	0.15	0.09	0.14
Avail Cap(c_a), veh/h	302	800	829	209	800	807	724	0	0	676	728	617
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	0.74	0.74	0.74	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	12.4	12.4	20.4	10.8	10.8	10.2	0.0	0.0	9.9	9.6	9.9
Incr Delay (d2), s/veh	0.3	4.1	3.9	0.2	0.8	0.8	0.7	0.0	0.0	0.5	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.6	5.8	0.3	3.2	3.2	1.1	0.0	0.0	0.7	0.4	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	16.5	16.4	20.6	11.6	11.6	10.9	0.0	0.0	10.4	9.9	10.3
LnGrp LOS	B	B	B	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		1333			933			153			251	
Approach Delay, s/veh		16.4			11.9			10.9			10.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.0		26.0		24.0		26.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		22.5		18.5		22.5				
Max Q Clear Time (g_c+I1), s		4.9		17.1		3.9		20.2				
Green Ext Time (p_c), s		0.6		3.7		0.8		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				14.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 23: College Ave & Arrow Hwy

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	1612	56	43	767	82	43	50	44	119	75	69
Future Volume (veh/h)	57	1612	56	43	767	82	43	50	44	119	75	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	1752	61	47	834	89	47	54	48	129	82	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	1898	66	140	1755	187	197	220	160	550	577	489
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	606	3504	121	258	3239	346	383	712	520	1293	1870	1585
Grp Volume(v), veh/h	62	885	928	47	457	466	149	0	0	129	82	75
Grp Sat Flow(s),veh/h/ln	606	1777	1848	258	1777	1808	1616	0	0	1293	1870	1585
Q Serve(g_s), s	4.2	27.3	27.7	4.8	9.5	9.5	0.0	0.0	0.0	0.0	1.9	2.1
Cycle Q Clear(g_c), s	13.8	27.3	27.7	32.5	9.5	9.5	3.8	0.0	0.0	3.2	1.9	2.1
Prop In Lane	1.00		0.07	1.00		0.19	0.32		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	352	962	1001	140	962	979	577	0	0	550	577	489
V/C Ratio(X)	0.18	0.92	0.93	0.33	0.48	0.48	0.26	0.00	0.00	0.23	0.14	0.15
Avail Cap(c_a), veh/h	352	962	1001	140	962	979	577	0	0	550	577	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.38	0.38	0.38	0.77	0.77	0.77	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	12.6	12.7	29.0	8.5	8.5	15.7	0.0	0.0	15.5	15.0	15.1
Incr Delay (d2), s/veh	0.1	6.0	6.4	1.1	0.3	0.3	1.1	0.0	0.0	1.0	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.0	10.6	0.7	3.0	3.0	1.6	0.0	0.0	1.4	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.8	18.6	19.1	30.0	8.8	8.8	16.8	0.0	0.0	16.5	15.5	15.7
LnGrp LOS	B	B	B	C	A	A	B	A	A	B	B	B
Approach Vol, veh/h		1875			970			149			286	
Approach Delay, s/veh		18.7			9.8			16.8			16.0	
Approach LOS		B			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.0		37.0		23.0		37.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		5.8		29.7		5.2		34.5				
Green Ext Time (p_c), s		0.6		2.5		0.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				15.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕		↵	↕		↵	↕		↵	↕	↵
Traffic Volume (veh/h)	276	632	49	59	585	94	80	289	45	88	202	240
Future Volume (veh/h)	276	632	49	59	585	94	80	289	45	88	202	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	300	687	53	64	636	102	87	314	49	96	220	261
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	339	1253	97	87	716	115	111	824	127	123	512	434
Arrive On Green	0.19	0.37	0.37	0.05	0.23	0.23	0.06	0.27	0.27	0.07	0.27	0.27
Sat Flow, veh/h	1781	3343	258	1781	3068	491	1781	3085	476	1781	1870	1585
Grp Volume(v), veh/h	300	365	375	64	368	370	87	179	184	96	220	261
Grp Sat Flow(s),veh/h/ln	1781	1777	1824	1781	1777	1782	1781	1777	1785	1781	1870	1585
Q Serve(g_s), s	12.3	12.1	12.1	2.7	15.0	15.1	3.6	6.2	6.3	4.0	7.3	10.7
Cycle Q Clear(g_c), s	12.3	12.1	12.1	2.7	15.0	15.1	3.6	6.2	6.3	4.0	7.3	10.7
Prop In Lane	1.00		0.14	1.00		0.28	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	339	666	684	87	415	416	111	475	477	123	512	434
V/C Ratio(X)	0.88	0.55	0.55	0.73	0.89	0.89	0.78	0.38	0.38	0.78	0.43	0.60
Avail Cap(c_a), veh/h	344	666	684	166	426	428	131	475	477	131	512	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	18.4	18.5	35.2	27.8	27.8	34.6	22.4	22.4	34.4	22.4	23.7
Incr Delay (d2), s/veh	14.2	0.5	0.5	11.1	19.4	19.7	22.3	2.3	2.3	24.6	2.6	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	4.4	4.6	1.4	8.1	8.2	2.2	2.7	2.8	2.5	3.5	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	19.0	19.0	46.3	47.2	47.6	56.9	24.7	24.8	58.9	25.1	29.8
LnGrp LOS	D	B	B	D	D	D	E	C	C	E	C	C
Approach Vol, veh/h		1040			802			450			577	
Approach Delay, s/veh		26.1			47.3			31.0			32.8	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	24.5	8.2	32.6	9.2	25.0	18.8	22.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	19.0	7.0	25.5	5.5	19.0	14.5	18.0				
Max Q Clear Time (g_c+I1), s	6.0	8.3	4.7	14.1	5.6	12.7	14.3	17.1				
Green Ext Time (p_c), s	0.0	1.5	0.0	3.2	0.0	1.2	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay				34.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 24: Mills Ave/Claremont Blvd & Arrow Hwy

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	867	30	46	575	113	61	186	47	191	260	204
Future Volume (veh/h)	151	867	30	46	575	113	61	186	47	191	260	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	942	33	50	625	123	66	202	51	208	283	222
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	1075	38	75	700	137	86	812	200	247	707	599
Arrive On Green	0.11	0.31	0.31	0.04	0.24	0.24	0.05	0.29	0.29	0.14	0.38	0.38
Sat Flow, veh/h	1781	3502	123	1781	2961	582	1781	2825	697	1781	1870	1585
Grp Volume(v), veh/h	164	478	497	50	375	373	66	125	128	208	283	222
Grp Sat Flow(s),veh/h/ln	1781	1777	1848	1781	1777	1766	1781	1777	1745	1781	1870	1585
Q Serve(g_s), s	7.2	20.4	20.4	2.2	16.3	16.4	2.9	4.3	4.5	9.1	8.9	8.1
Cycle Q Clear(g_c), s	7.2	20.4	20.4	2.2	16.3	16.4	2.9	4.3	4.5	9.1	8.9	8.1
Prop In Lane	1.00		0.07	1.00		0.33	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	201	545	567	75	420	417	86	511	502	247	707	599
V/C Ratio(X)	0.82	0.88	0.88	0.67	0.89	0.89	0.77	0.25	0.25	0.84	0.40	0.37
Avail Cap(c_a), veh/h	234	553	575	114	433	430	160	511	502	278	707	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.30	0.30	0.30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	26.3	26.3	37.8	29.6	29.6	37.6	21.8	21.9	33.6	18.2	18.0
Incr Delay (d2), s/veh	6.0	5.1	4.9	9.9	19.9	20.4	13.5	1.1	1.2	18.7	1.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	8.5	8.8	1.1	8.8	8.8	1.6	1.9	1.9	5.2	4.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	31.3	31.2	47.7	49.4	49.9	51.1	23.0	23.1	52.3	19.9	19.8
LnGrp LOS	D	C	C	D	D	D	D	C	C	D	B	B
Approach Vol, veh/h		1139			798			319			713	
Approach Delay, s/veh		32.6			49.5			28.9			29.3	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.6	27.5	7.9	29.1	8.3	34.7	13.5	23.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	19.5	5.1	24.9	7.2	24.8	10.5	19.5				
Max Q Clear Time (g_c+I1), s	11.1	6.5	4.2	22.4	4.9	10.9	9.2	18.4				
Green Ext Time (p_c), s	0.1	1.1	0.0	1.4	0.0	2.2	0.1	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			36.0									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔		↔	↑↑	↔	↔	↑↑	↔
Traffic Volume (veh/h)	28	11	68	6	1	4	67	383	65	98	354	35
Future Volume (veh/h)	28	11	68	6	1	4	67	383	65	98	354	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	12	74	7	1	4	73	416	71	107	385	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	24	146	16	18	72	94	2078	927	136	2162	965
Arrive On Green	0.06	0.10	0.10	0.01	0.06	0.06	0.05	0.58	0.58	0.08	0.61	0.61
Sat Flow, veh/h	1781	226	1394	1781	327	1308	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	30	0	86	7	0	5	73	416	71	107	385	38
Grp Sat Flow(s),veh/h/ln	1781	0	1620	1781	0	1635	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.3	0.0	4.0	0.3	0.0	0.2	3.2	4.4	1.6	4.7	3.8	0.8
Cycle Q Clear(g_c), s	1.3	0.0	4.0	0.3	0.0	0.2	3.2	4.4	1.6	4.7	3.8	0.8
Prop In Lane	1.00		0.86	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	0	170	16	0	91	94	2078	927	136	2162	965
V/C Ratio(X)	0.29	0.00	0.51	0.44	0.00	0.06	0.78	0.20	0.08	0.79	0.18	0.04
Avail Cap(c_a), veh/h	401	0	628	111	0	368	134	2078	927	169	2162	965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	36.1	0.0	33.8	39.4	0.0	35.8	37.4	7.8	7.2	36.3	6.9	6.3
Incr Delay (d2), s/veh	1.5	0.0	2.3	17.6	0.0	0.3	16.7	0.2	0.2	15.6	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.7	0.2	0.0	0.1	1.8	1.5	0.5	2.5	1.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	0.0	36.2	57.0	0.0	36.0	54.1	8.0	7.4	51.9	7.0	6.3
LnGrp LOS	D	A	D	E	A	D	D	A	A	D	A	A
Approach Vol, veh/h		116			12			560			530	
Approach Delay, s/veh		36.5			48.3			14.0			16.0	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	51.3	5.2	12.9	8.7	53.2	9.2	8.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.6	18.4	5.0	31.0	6.0	20.0	18.0	18.0				
Max Q Clear Time (g_c+I1), s	6.7	6.4	2.3	6.0	5.2	5.8	3.3	2.2				
Green Ext Time (p_c), s	0.0	2.2	0.0	0.5	0.0	2.1	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			17.4									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 25: Claremont Blvd & 9th St

04/17/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	30	0	65	95	16	63	53	379	2	3	337	37
Future Volume (veh/h)	30	0	65	95	16	63	53	379	2	3	337	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	0	71	103	17	68	58	412	2	3	366	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	0	113	132	27	110	81	2222	991	7	2075	926
Arrive On Green	0.06	0.00	0.07	0.07	0.08	0.08	0.05	0.63	0.63	0.00	0.58	0.58
Sat Flow, veh/h	1781	0	1585	1781	327	1308	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	33	0	71	103	0	85	58	412	2	3	366	40
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1635	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.4	0.0	3.5	4.5	0.0	4.0	2.6	3.9	0.0	0.1	3.8	0.9
Cycle Q Clear(g_c), s	1.4	0.0	3.5	4.5	0.0	4.0	2.6	3.9	0.0	0.1	3.8	0.9
Prop In Lane	1.00		1.00	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	0	113	132	0	137	81	2222	991	7	2075	926
V/C Ratio(X)	0.30	0.00	0.63	0.78	0.00	0.62	0.72	0.19	0.00	0.42	0.18	0.04
Avail Cap(c_a), veh/h	401	0	509	229	0	368	154	2222	991	111	2075	926
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	35.9	0.0	36.1	36.4	0.0	35.4	37.7	6.4	5.6	39.7	7.7	7.1
Incr Delay (d2), s/veh	1.5	0.0	5.6	9.4	0.0	4.5	11.3	0.2	0.0	33.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.5	2.3	0.0	1.7	1.3	1.2	0.0	0.1	1.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	41.7	45.8	0.0	39.9	49.0	6.5	5.6	72.9	7.9	7.2
LnGrp LOS	D	A	D	D	A	D	D	A	A	E	A	A
Approach Vol, veh/h		104			188			472				409
Approach Delay, s/veh		40.3			43.1			11.8				8.3
Approach LOS		D			D			B				A
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	54.5	10.4	10.2	8.1	51.2	9.4	11.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	21.0	10.3	25.7	6.9	19.1	18.0	18.0				
Max Q Clear Time (g_c+I1), s	2.1	5.9	6.5	5.5	4.6	5.8	3.4	6.0				
Green Ext Time (p_c), s	0.0	2.2	0.1	0.3	0.0	1.9	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay				18.1								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	55	11	0	92	0	3
Future Vol, veh/h	55	11	0	92	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	12	0	100	0	3

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	36
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	1029
Stage 1	-	-	0	-	-
Stage 2	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	1029
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	1029	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-
HCM Control Delay (s)	8.5	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	82	0	0	52	0	47
Future Vol, veh/h	82	0	0	52	0	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	89	0	0	57	0	51

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	-	-	45
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	1015
Stage 1	-	-	0	-	-
Stage 2	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	1015
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	1015	-	-	-
HCM Lane V/C Ratio	0.05	-	-	-
HCM Control Delay (s)	8.7	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	3	102	0	0	46
Future Vol, veh/h	0	3	102	0	0	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	111	0	0	50

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	56	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	999	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	999	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	999
HCM Lane V/C Ratio	-	-	0.003
HCM Control Delay (s)	-	-	8.6
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	47	40	0	0	127
Future Vol, veh/h	0	47	40	0	0	127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	51	43	0	0	138

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	22	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	1050	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	1050	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 1050	-
HCM Lane V/C Ratio	-	- 0.049	-
HCM Control Delay (s)	-	- 8.6	-
HCM Lane LOS	-	- A	-
HCM 95th %tile Q(veh)	-	- 0.2	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	3	0	98	105	33
Future Vol, veh/h	0	3	0	98	105	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	0	103	111	35

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	73	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	827	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	827	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	827	-	-
HCM Lane V/C Ratio	-	0.004	-	-
HCM Control Delay (s)	-	9.4	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	47	0	130	104	1
Future Vol, veh/h	0	47	0	130	104	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	49	0	137	109	1

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	55	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	848	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	848	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	848	-	-
HCM Lane V/C Ratio	-	0.058	-	-
HCM Control Delay (s)	-	9.5	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↗	↖	↕		↖	↗	↖
Traffic Volume (veh/h)	0	0	0	44	0	40	2	935	42	27	933	0
Future Volume (veh/h)	0	0	0	44	0	40	2	935	42	27	933	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	46	0	42	2	984	44	28	982	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	163	0	398	163	138	539	2109	94	970	3108	0
Arrive On Green	0.00	0.00	0.00	0.09	0.00	0.09	0.61	0.61	0.61	0.61	0.61	0.00
Sat Flow, veh/h	0	1870	0	1781	1870	1585	573	3464	155	1064	5274	0
Grp Volume(v), veh/h	0	0	0	46	0	42	2	505	523	28	982	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	1870	1585	573	1777	1842	532	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	0.7	0.0	0.7	0.1	4.6	4.6	0.4	2.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.7	0.0	0.7	2.8	4.6	4.6	5.0	2.8	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	0	163	0	398	163	138	539	1081	1121	970	3108	0
V/C Ratio(X)	0.00	0.00	0.00	0.12	0.00	0.30	0.00	0.47	0.47	0.03	0.32	0.00
Avail Cap(c_a), veh/h	0	1138	0	1328	1138	965	539	1081	1121	970	3108	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	12.7	0.0	12.7	3.5	3.2	3.2	4.5	2.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	1.2	0.0	1.4	1.4	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.7	0.7	0.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	12.8	0.0	13.9	3.5	4.6	4.6	4.6	3.1	0.0
LnGrp LOS	A	A	A	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		0			88			1030			1010	
Approach Delay, s/veh		0.0			13.3			4.6			3.1	
Approach LOS					B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		7.1		22.5		7.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		6.6		0.0		7.0		2.7				
Green Ext Time (p_c), s		5.1		0.0		5.3		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				4.2								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary
 29: Richton St & Monte Vista Ave

04/08/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↖	↖	↕		↖	↗	↖
Traffic Volume (veh/h)	0	1	0	83	1	79	0	851	49	22	920	0
Future Volume (veh/h)	0	1	0	83	1	79	0	851	49	22	920	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	0	87	1	83	0	896	52	23	968	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	234	0	410	234	198	233	1991	116	966	2979	0
Arrive On Green	0.00	0.12	0.00	0.12	0.12	0.12	0.00	0.58	0.58	0.58	0.58	0.00
Sat Flow, veh/h	0	1870	0	1416	1870	1585	581	3413	198	1148	5274	0
Grp Volume(v), veh/h	0	1	0	87	1	83	0	466	482	23	968	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1416	1870	1585	581	1777	1835	574	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	1.5	0.0	4.6	4.6	0.4	3.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	0.0	1.5	0.0	4.6	4.6	4.9	3.0	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	0	234	0	410	234	198	233	1037	1070	966	2979	0
V/C Ratio(X)	0.00	0.00	0.00	0.21	0.00	0.42	0.00	0.45	0.45	0.02	0.32	0.00
Avail Cap(c_a), veh/h	0	1091	0	1059	1091	925	233	1037	1070	966	2979	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	11.8	0.0	12.6	11.8	12.5	0.0	3.6	3.6	5.0	3.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	1.4	0.0	1.4	1.4	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.5	0.0	0.5	0.0	0.8	0.8	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.8	0.0	12.9	11.8	13.9	0.0	5.0	5.0	5.1	3.6	0.0
LnGrp LOS	A	B	A	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		1			171			948			991	
Approach Delay, s/veh		11.8			13.3			5.0			3.6	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		8.4		22.5		8.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		6.6		2.0		6.9		3.8				
Green Ext Time (p_c), s		4.7		0.0		5.2		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				5.0								
HCM 6th LOS				A								

APPENDIX G
NON-CEQA MEASURES LEVEL-OF-SERVICE
WORKSHEET

HCM Signalized Intersection Capacity Analysis

4: Baseline Rd & SR-210 Ramp

05/01/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘		↗↗	↘		↗↗
Traffic Volume (vph)	92	630	571	29	1236	639	163	0	519	41	0	564
Future Volume (vph)	92	630	571	29	1236	639	163	0	519	41	0	564
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.88	1.00		0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	100	685	621	32	1343	695	177	0	564	45	0	613
RTOR Reduction (vph)	0	0	304	0	0	396	0	0	407	0	0	338
Lane Group Flow (vph)	100	685	317	32	1343	299	177	0	157	45	0	275
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot		Perm	Prot		Over
Protected Phases	7	4		3	8		5			1		7
Permitted Phases			4			8			2			
Actuated Green, G (s)	10.8	46.0	46.0	3.5	38.7	38.7	27.0		19.5	3.0		10.8
Effective Green, g (s)	10.8	46.0	46.0	3.5	38.7	38.7	27.0		19.5	3.0		10.8
Actuated g/C Ratio	0.12	0.51	0.51	0.04	0.43	0.43	0.30		0.22	0.03		0.12
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	212	1808	809	68	1521	680	531		603	59		334
v/s Ratio Prot	0.06	0.19		0.02	c0.38		c0.10			c0.03		c0.10
v/s Ratio Perm			0.20			0.19			0.06			
v/c Ratio	0.47	0.38	0.39	0.47	0.88	0.44	0.33		0.26	0.76		0.82
Uniform Delay, d1	36.9	13.3	13.5	42.3	23.6	18.0	24.5		29.3	43.1		38.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	1.7	0.1	0.3	5.1	6.4	0.5	0.4		1.0	43.5		15.1
Delay (s)	38.6	13.5	13.8	47.4	30.0	18.5	24.9		30.3	86.6		53.7
Level of Service	D	B	B	D	C	B	C		C	F		D
Approach Delay (s)		15.4			26.4			29.0			56.0	
Approach LOS		B			C			C			E	

Intersection Summary

HCM 2000 Control Delay	27.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Baseline Rd & SR-210 Ramp

05/01/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	1129	487	32	924	428	123	0	821	77	0	591
Future Volume (vph)	149	1129	487	32	924	428	123	0	821	77	0	591
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.88	1.00		0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	162	1227	529	35	1004	465	134	0	892	84	0	642
RTOR Reduction (vph)	0	0	296	0	0	298	0	0	263	0	0	564
Lane Group Flow (vph)	162	1227	233	35	1004	167	134	0	629	84	0	78
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot		Perm	Prot		Over
Protected Phases	7	4		3	8		5			1		7
Permitted Phases			4			8			2			
Actuated Green, G (s)	8.0	33.0	33.0	2.0	27.0	27.0	26.5		18.0	4.0		8.0
Effective Green, g (s)	8.0	33.0	33.0	2.0	27.0	27.0	26.5		18.0	4.0		8.0
Actuated g/C Ratio	0.11	0.44	0.44	0.03	0.36	0.36	0.35		0.24	0.05		0.11
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	188	1557	696	47	1274	569	625		668	94		297
v/s Ratio Prot	c0.09	c0.35		0.02	0.28		0.08			c0.05		0.03
v/s Ratio Perm			0.15			0.11			c0.23			
v/c Ratio	0.86	0.79	0.33	0.74	0.79	0.29	0.21		0.94	0.89		0.26
Uniform Delay, d1	33.0	18.0	13.8	36.2	21.4	17.2	17.0		28.0	35.3		30.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	30.9	2.7	0.3	47.2	3.3	0.3	0.2		23.1	59.2		0.5
Delay (s)	63.9	20.7	14.1	83.4	24.8	17.5	17.1		51.1	94.5		31.3
Level of Service	E	C	B	F	C	B	B		D	F		C
Approach Delay (s)		22.5			23.9			46.7			38.6	
Approach LOS		C			C			D			D	

Intersection Summary

HCM 2000 Control Delay	30.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	33.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↑	↕	↕	↕	
Traffic Vol, veh/h	0	21	60	72	5	31	4	714	91	50	782	2
Future Vol, veh/h	0	21	60	72	5	31	4	714	91	50	782	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	55	-	55	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	65	78	5	34	4	776	99	54	850	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1812	1842	851	1787	1744	776	852	0	0	875	0	0
Stage 1	959	959	-	784	784	-	-	-	-	-	-	-
Stage 2	853	883	-	1003	960	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	61	75	360	~63	86	397	787	-	-	771	-	-
Stage 1	309	335	-	386	404	-	-	-	-	-	-	-
Stage 2	354	364	-	292	335	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	50	69	360	~36	80	397	787	-	-	771	-	-
Mov Cap-2 Maneuver	50	69	-	~36	80	-	-	-	-	-	-	-
Stage 1	307	312	-	384	402	-	-	-	-	-	-	-
Stage 2	318	362	-	206	312	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	46	\$ 526.2	0	0.6
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	787	-	-	172 36 256	771	-	-
HCM Lane V/C Ratio	0.006	-	-	0.512 2.174 0.153	0.07	-	-
HCM Control Delay (s)	9.6	-	-	46\$ 778.5 21.6	10	-	-
HCM Lane LOS	A	-	-	E F C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	2.5 8.7 0.5	0.2	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	20.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↑	↕	↕	↕	↕
Traffic Vol, veh/h	4	7	5	76	12	115	7	737	71	91	653	1
Future Vol, veh/h	4	7	5	76	12	115	7	737	71	91	653	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	55	-	55	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	8	5	83	13	125	8	801	77	99	710	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1834	1803	711	1732	1726	801	711	0	0	878	0	0
Stage 1	909	909	-	817	817	-	-	-	-	-	-	-
Stage 2	925	894	-	915	909	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	59	79	433	~ 69	89	384	888	-	-	769	-	-
Stage 1	329	354	-	370	390	-	-	-	-	-	-	-
Stage 2	323	360	-	327	354	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	31	68	433	~ 56	77	384	888	-	-	769	-	-
Mov Cap-2 Maneuver	31	68	-	~ 56	77	-	-	-	-	-	-	-
Stage 1	326	308	-	367	386	-	-	-	-	-	-	-
Stage 2	209	357	-	274	308	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	78		171.8		0.1		1.3	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	66	56	279	769	-	-
HCM Lane V/C Ratio	0.009	-	-	0.264	1.475	0.495	0.129	-	-
HCM Control Delay (s)	9.1	-	-	78	408.8	29.9	10.4	-	-
HCM Lane LOS	A	-	-	F	F	D	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.9	7.5	2.6	0.4	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	19.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕		↶	↷	
Traffic Vol, veh/h	59	212	30	46	132	18	67	217	80	20	159	36
Future Vol, veh/h	59	212	30	46	132	18	67	217	80	20	159	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	230	33	50	143	20	73	236	87	22	173	39
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	2
HCM Control Delay	16.4	13.4	27.8	14.6
HCM LOS	C	B	D	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	18%	100%	0%	100%	0%	100%	0%
Vol Thru, %	60%	0%	88%	0%	88%	0%	82%
Vol Right, %	22%	0%	12%	0%	12%	0%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	364	59	242	46	150	20	195
LT Vol	67	59	0	46	0	20	0
Through Vol	217	0	212	0	132	0	159
RT Vol	80	0	30	0	18	0	36
Lane Flow Rate	396	64	263	50	163	22	212
Geometry Grp	4b	5	5	5	5	5	5
Degree of Util (X)	0.751	0.138	0.522	0.111	0.336	0.047	0.42
Departure Headway (Hd)	6.837	7.743	7.14	8.013	7.411	7.782	7.137
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	530	462	505	447	484	459	502
Service Time	4.89	5.5	4.897	5.778	5.176	5.545	4.9
HCM Lane V/C Ratio	0.747	0.139	0.521	0.112	0.337	0.048	0.422
HCM Control Delay	27.8	11.7	17.5	11.8	13.9	10.9	15
HCM Lane LOS	D	B	C	B	B	B	B
HCM 95th-tile Q	6.5	0.5	3	0.4	1.5	0.1	2.1

Intersection	
Intersection Delay, s/veh	27.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕		↶	↷	
Traffic Vol, veh/h	40	208	57	99	274	23	72	155	74	21	222	59
Future Vol, veh/h	40	208	57	99	274	23	72	155	74	21	222	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	226	62	108	298	25	78	168	80	23	241	64
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	2
HCM Control Delay	24.2	26.4	33.7	27
HCM LOS	C	D	D	D

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	24%	100%	0%	100%	0%	100%	0%
Vol Thru, %	51%	0%	78%	0%	92%	0%	79%
Vol Right, %	25%	0%	22%	0%	8%	0%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	301	40	265	99	297	21	281
LT Vol	72	40	0	99	0	21	0
Through Vol	155	0	208	0	274	0	222
RT Vol	74	0	57	0	23	0	59
Lane Flow Rate	327	43	288	108	323	23	305
Geometry Grp	4b	5	5	5	5	5	5
Degree of Util (X)	0.761	0.108	0.662	0.261	0.732	0.056	0.699
Departure Headway (Hd)	8.369	8.946	8.269	8.744	8.168	8.903	8.233
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	432	400	435	410	442	401	437
Service Time	6.447	6.723	6.046	6.522	5.946	6.678	6.007
HCM Lane V/C Ratio	0.757	0.107	0.662	0.263	0.731	0.057	0.698
HCM Control Delay	33.7	12.8	25.9	14.6	30.3	12.2	28.1
HCM Lane LOS	D	B	D	B	D	B	D
HCM 95th-tile Q	6.4	0.4	4.7	1	5.9	0.2	5.3

Intersection	
Intersection Delay, s/veh	16.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↘	↙	↑	↘	↙	↕		↙	↕	
Traffic Vol, veh/h	55	184	48	45	298	137	30	235	28	42	168	18
Future Vol, veh/h	55	184	48	45	298	137	30	235	28	42	168	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	200	52	49	324	149	33	255	30	46	183	20
Number of Lanes	1	1	1	1	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	15	19.7	14.3	13.2
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	74%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	26%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	157	106	55	184	48	45	298	137	42	112
LT Vol	30	0	0	55	0	0	45	0	0	42	0
Through Vol	0	157	78	0	184	0	0	298	0	0	112
RT Vol	0	0	28	0	0	48	0	0	137	0	0
Lane Flow Rate	33	170	116	60	200	52	49	324	149	46	122
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.077	0.377	0.25	0.14	0.44	0.105	0.108	0.673	0.28	0.11	0.276
Departure Headway (Hd)	8.475	7.975	7.79	8.418	7.918	7.218	7.98	7.48	6.78	8.654	8.154
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	422	451	460	426	454	495	449	483	529	414	439
Service Time	6.238	5.738	5.554	6.181	5.681	4.981	5.738	5.238	4.538	6.42	5.92
HCM Lane V/C Ratio	0.078	0.377	0.252	0.141	0.441	0.105	0.109	0.671	0.282	0.111	0.278
HCM Control Delay	11.9	15.5	13.2	12.6	16.8	10.8	11.7	24.4	12.2	12.5	14
HCM Lane LOS	B	C	B	B	C	B	B	C	B	B	B
HCM 95th-tile Q	0.2	1.7	1	0.5	2.2	0.3	0.4	4.9	1.1	0.4	1.1

Intersection	
Intersection Delay, s/veh	29.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↕		↘	↕	
Traffic Vol, veh/h	49	336	76	71	269	91	45	139	88	116	313	57
Future Vol, veh/h	49	336	76	71	269	91	45	139	88	116	313	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	365	83	77	292	99	49	151	96	126	340	62
Number of Lanes	1	1	1	1	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	48.5	28.1	16.9	20.7
HCM LOS	E	D	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	34%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	66%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	93	134	49	336	76	71	269	91	116	209
LT Vol	45	0	0	49	0	0	71	0	0	116	0
Through Vol	0	93	46	0	336	0	0	269	0	0	209
RT Vol	0	0	88	0	0	76	0	0	91	0	0
Lane Flow Rate	49	101	146	53	365	83	77	292	99	126	227
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.141	0.277	0.382	0.144	0.935	0.195	0.211	0.758	0.237	0.341	0.582
Departure Headway (Hd)	10.386	9.886	9.428	9.712	9.212	8.512	9.832	9.332	8.632	9.731	9.231
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	345	363	381	369	394	420	364	386	415	369	390
Service Time	8.167	7.667	7.209	7.483	6.983	6.283	7.605	7.105	6.405	7.502	7.002
HCM Lane V/C Ratio	0.142	0.278	0.383	0.144	0.926	0.198	0.212	0.756	0.239	0.341	0.582
HCM Control Delay	14.9	16.4	18	14.1	61.5	13.4	15.2	36.2	14.1	17.5	24.2
HCM Lane LOS	B	C	C	B	F	B	C	E	B	C	C
HCM 95th-tile Q	0.5	1.1	1.7	0.5	10.2	0.7	0.8	6.1	0.9	1.5	3.6

HCM Signalized Intersection Capacity Analysis

4: Baseline Rd & SR-210 Ramp

05/01/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	630	571	29	1236	639	163	0	519	41	0	564
Future Volume (vph)	92	630	571	29	1236	639	163	0	519	41	0	564
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.88	1.00		0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	100	685	621	32	1343	695	177	0	564	45	0	613
RTOR Reduction (vph)	0	0	304	0	0	396	0	0	407	0	0	338
Lane Group Flow (vph)	100	685	317	32	1343	299	177	0	157	45	0	275
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot		Perm	Prot		Over
Protected Phases	7	4		3	8		5			1		7
Permitted Phases			4			8			2			
Actuated Green, G (s)	10.8	46.0	46.0	3.5	38.7	38.7	27.0		19.5	3.0		10.8
Effective Green, g (s)	10.8	46.0	46.0	3.5	38.7	38.7	27.0		19.5	3.0		10.8
Actuated g/C Ratio	0.12	0.51	0.51	0.04	0.43	0.43	0.30		0.22	0.03		0.12
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	212	1808	809	68	1521	680	531		603	59		334
v/s Ratio Prot	0.06	0.19		0.02	c0.38		c0.10			c0.03		c0.10
v/s Ratio Perm			0.20			0.19			0.06			
v/c Ratio	0.47	0.38	0.39	0.47	0.88	0.44	0.33		0.26	0.76		0.82
Uniform Delay, d1	36.9	13.3	13.5	42.3	23.6	18.0	24.5		29.3	43.1		38.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	1.7	0.1	0.3	5.1	6.4	0.5	0.4		1.0	43.5		15.1
Delay (s)	38.6	13.5	13.8	47.4	30.0	18.5	24.9		30.3	86.6		53.7
Level of Service	D	B	B	D	C	B	C		C	F		D
Approach Delay (s)		15.4			26.4			29.0			56.0	
Approach LOS		B			C			C			E	
Intersection Summary												
HCM 2000 Control Delay			27.6			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			90.0			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			73.8%			ICU Level of Service				D		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Baseline Rd & SR-210 Ramp

05/01/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	154	1129	492	32	924	428	123	0	821	77	0	591
Future Volume (vph)	154	1129	492	32	924	428	123	0	821	77	0	591
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.88	1.00		0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	167	1227	535	35	1004	465	134	0	892	84	0	642
RTOR Reduction (vph)	0	0	300	0	0	299	0	0	264	0	0	564
Lane Group Flow (vph)	167	1227	235	35	1004	166	134	0	628	84	0	78
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot		Perm	Prot		Over
Protected Phases	7	4		3	8		5			1		7
Permitted Phases			4			8			2			
Actuated Green, G (s)	8.2	33.0	33.0	2.0	26.8	26.8	26.5		18.0	4.0		8.2
Effective Green, g (s)	8.2	33.0	33.0	2.0	26.8	26.8	26.5		18.0	4.0		8.2
Actuated g/C Ratio	0.11	0.44	0.44	0.03	0.36	0.36	0.35		0.24	0.05		0.11
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	193	1557	696	47	1264	565	625		668	94		304
v/s Ratio Prot	c0.09	c0.35		0.02	0.28		0.08			c0.05		0.03
v/s Ratio Perm			0.15			0.10			c0.23			
v/c Ratio	0.87	0.79	0.34	0.74	0.79	0.29	0.21		0.94	0.89		0.26
Uniform Delay, d1	32.9	18.0	13.8	36.2	21.6	17.3	17.0		28.0	35.3		30.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	30.8	2.7	0.3	47.2	3.5	0.3	0.2		22.9	59.2		0.5
Delay (s)	63.7	20.7	14.1	83.4	25.2	17.6	17.1		50.9	94.5		31.1
Level of Service	E	C	B	F	C	B	B		D	F		C
Approach Delay (s)		22.6			24.2			46.5			38.4	
Approach LOS		C			C			D			D	

Intersection Summary		
HCM 2000 Control Delay	30.0	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.89	C
Actuated Cycle Length (s)	75.0	Sum of lost time (s)
Intersection Capacity Utilization	75.0%	18.0
Analysis Period (min)	15	ICU Level of Service
		D

c Critical Lane Group

HCM 6th TWSC
13: 6th St & Indian Hill Blvd

05/01/2024

Intersection												
Int Delay, s/veh	33.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↑	↕	↕	↕	↕
Traffic Vol, veh/h	0	21	60	72	5	31	4	714	91	50	782	2
Future Vol, veh/h	0	21	60	72	5	31	4	714	91	50	782	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	55	-	55	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	65	78	5	34	4	776	99	54	850	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1812	1842	851	1787	1744	776	852	0	0	875	0	0
Stage 1	959	959	-	784	784	-	-	-	-	-	-	-
Stage 2	853	883	-	1003	960	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	61	75	360	~63	86	397	787	-	-	771	-	-
Stage 1	309	335	-	386	404	-	-	-	-	-	-	-
Stage 2	354	364	-	292	335	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	50	69	360	~36	80	397	787	-	-	771	-	-
Mov Cap-2 Maneuver	50	69	-	~36	80	-	-	-	-	-	-	-
Stage 1	307	312	-	384	402	-	-	-	-	-	-	-
Stage 2	318	362	-	206	312	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	46	\$ 526.2	0	0.6
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	787	-	-	172	36	256	771	-	-
HCM Lane V/C Ratio	0.006	-	-	0.512	2.174	0.153	0.07	-	-
HCM Control Delay (s)	9.6	-	-	46	778.5	21.6	10	-	-
HCM Lane LOS	A	-	-	E	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	2.5	8.7	0.5	0.2	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
13: 6th St & Indian Hill Blvd

05/01/2024

Intersection												
Int Delay, s/veh	20.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↑	↕	↕	↕	
Traffic Vol, veh/h	4	7	5	76	12	115	7	737	71	91	653	1
Future Vol, veh/h	4	7	5	76	12	115	7	737	71	91	653	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	55	-	55	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	8	5	83	13	125	8	801	77	99	710	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1834	1803	711	1732	1726	801	711	0	0	878	0	0
Stage 1	909	909	-	817	817	-	-	-	-	-	-	-
Stage 2	925	894	-	915	909	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	59	79	433	~ 69	89	384	888	-	-	769	-	-
Stage 1	329	354	-	370	390	-	-	-	-	-	-	-
Stage 2	323	360	-	327	354	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	31	68	433	~ 56	77	384	888	-	-	769	-	-
Mov Cap-2 Maneuver	31	68	-	~ 56	77	-	-	-	-	-	-	-
Stage 1	326	308	-	367	386	-	-	-	-	-	-	-
Stage 2	209	357	-	274	308	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	78	171.8	0.1	1.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	66	56	279	769	-	-
HCM Lane V/C Ratio	0.009	-	-	0.264	1.475	0.495	0.129	-	-
HCM Control Delay (s)	9.1	-	-	78	408.8	29.9	10.4	-	-
HCM Lane LOS	A	-	-	F	F	D	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.9	7.5	2.6	0.4	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	19.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕		↶	↷	
Traffic Vol, veh/h	59	212	30	46	132	18	67	217	80	20	159	36
Future Vol, veh/h	59	212	30	46	132	18	67	217	80	20	159	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	230	33	50	143	20	73	236	87	22	173	39
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	2
HCM Control Delay	16.4	13.4	27.8	14.6
HCM LOS	C	B	D	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	18%	100%	0%	100%	0%	100%	0%
Vol Thru, %	60%	0%	88%	0%	88%	0%	82%
Vol Right, %	22%	0%	12%	0%	12%	0%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	364	59	242	46	150	20	195
LT Vol	67	59	0	46	0	20	0
Through Vol	217	0	212	0	132	0	159
RT Vol	80	0	30	0	18	0	36
Lane Flow Rate	396	64	263	50	163	22	212
Geometry Grp	4b	5	5	5	5	5	5
Degree of Util (X)	0.751	0.138	0.522	0.111	0.336	0.047	0.42
Departure Headway (Hd)	6.837	7.743	7.14	8.013	7.411	7.782	7.137
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	530	462	505	447	484	459	502
Service Time	4.89	5.5	4.897	5.778	5.176	5.545	4.9
HCM Lane V/C Ratio	0.747	0.139	0.521	0.112	0.337	0.048	0.422
HCM Control Delay	27.8	11.7	17.5	11.8	13.9	10.9	15
HCM Lane LOS	D	B	C	B	B	B	B
HCM 95th-tile Q	6.5	0.5	3	0.4	1.5	0.1	2.1

Intersection	
Intersection Delay, s/veh	28.2
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕		↶	↷	
Traffic Vol, veh/h	40	208	57	99	279	23	72	155	74	21	222	59
Future Vol, veh/h	40	208	57	99	279	23	72	155	74	21	222	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	226	62	108	303	25	78	168	80	23	241	64
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	2
HCM Control Delay	24.4	27.3	34	27.3
HCM LOS	C	D	D	D

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	24%	100%	0%	100%	0%	100%	0%
Vol Thru, %	51%	0%	78%	0%	92%	0%	79%
Vol Right, %	25%	0%	22%	0%	8%	0%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	301	40	265	99	302	21	281
LT Vol	72	40	0	99	0	21	0
Through Vol	155	0	208	0	279	0	222
RT Vol	74	0	57	0	23	0	59
Lane Flow Rate	327	43	288	108	328	23	305
Geometry Grp	4b	5	5	5	5	5	5
Degree of Util (X)	0.763	0.108	0.664	0.262	0.746	0.057	0.701
Departure Headway (Hd)	8.399	8.974	8.297	8.757	8.182	8.933	8.263
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	429	398	435	409	440	400	437
Service Time	6.48	6.751	6.074	6.534	5.959	6.708	6.038
HCM Lane V/C Ratio	0.762	0.108	0.662	0.264	0.745	0.058	0.698
HCM Control Delay	34	12.8	26.1	14.6	31.5	12.3	28.4
HCM Lane LOS	D	B	D	B	D	B	D
HCM 95th-tile Q	6.4	0.4	4.7	1	6.1	0.2	5.3

Intersection	
Intersection Delay, s/veh	16.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↘	↙	↑	↘	↙	↕		↙	↕	
Traffic Vol, veh/h	55	184	48	45	298	137	30	235	28	42	168	18
Future Vol, veh/h	55	184	48	45	298	137	30	235	28	42	168	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	200	52	49	324	149	33	255	30	46	183	20
Number of Lanes	1	1	1	1	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	15	19.7	14.3	13.2
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	74%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	26%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	157	106	55	184	48	45	298	137	42	112
LT Vol	30	0	0	55	0	0	45	0	0	42	0
Through Vol	0	157	78	0	184	0	0	298	0	0	112
RT Vol	0	0	28	0	0	48	0	0	137	0	0
Lane Flow Rate	33	170	116	60	200	52	49	324	149	46	122
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.077	0.377	0.25	0.14	0.44	0.105	0.108	0.673	0.28	0.11	0.276
Departure Headway (Hd)	8.475	7.975	7.79	8.418	7.918	7.218	7.98	7.48	6.78	8.654	8.154
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	422	451	460	426	454	495	449	483	529	414	439
Service Time	6.238	5.738	5.554	6.181	5.681	4.981	5.738	5.238	4.538	6.42	5.92
HCM Lane V/C Ratio	0.078	0.377	0.252	0.141	0.441	0.105	0.109	0.671	0.282	0.111	0.278
HCM Control Delay	11.9	15.5	13.2	12.6	16.8	10.8	11.7	24.4	12.2	12.5	14
HCM Lane LOS	B	C	B	B	C	B	B	C	B	B	B
HCM 95th-tile Q	0.2	1.7	1	0.5	2.2	0.3	0.4	4.9	1.1	0.4	1.1

Intersection	
Intersection Delay, s/veh	30.2
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑	↖	↗	↑	↖	↗	↕		↗	↕	
Traffic Vol, veh/h	49	336	76	71	274	91	45	139	88	116	313	57
Future Vol, veh/h	49	336	76	71	274	91	45	139	88	116	313	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	365	83	77	298	99	49	151	96	126	340	62
Number of Lanes	1	1	1	1	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	49	29.1	17	20.8
HCM LOS	E	D	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	34%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	66%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	93	134	49	336	76	71	274	91	116	209
LT Vol	45	0	0	49	0	0	71	0	0	116	0
Through Vol	0	93	46	0	336	0	0	274	0	0	209
RT Vol	0	0	88	0	0	76	0	0	91	0	0
Lane Flow Rate	49	101	146	53	365	83	77	298	99	126	227
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.142	0.277	0.384	0.144	0.937	0.196	0.211	0.773	0.238	0.342	0.583
Departure Headway (Hd)	10.417	9.917	9.459	9.741	9.241	8.541	9.845	9.345	8.645	9.761	9.261
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	344	362	380	368	391	420	364	387	414	368	390
Service Time	8.195	7.695	7.237	7.511	7.011	6.311	7.616	7.116	6.416	7.529	7.029
HCM Lane V/C Ratio	0.142	0.279	0.384	0.144	0.934	0.198	0.212	0.77	0.239	0.342	0.582
HCM Control Delay	14.9	16.5	18.1	14.2	62.1	13.4	15.2	37.7	14.1	17.6	24.3
HCM Lane LOS	B	C	C	B	F	B	C	E	B	C	C
HCM 95th-tile Q	0.5	1.1	1.8	0.5	10.2	0.7	0.8	6.4	0.9	1.5	3.6

HCM Signalized Intersection Capacity Analysis

4: Baseline Rd & SR-210 Ramp

05/01/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	146	777	490	77	717	505	179	0	626	107	0	561
Future Volume (vph)	146	777	490	77	717	505	179	0	626	107	0	561
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.88	1.00		0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	159	845	533	84	779	549	195	0	680	116	0	610
RTOR Reduction (vph)	0	0	362	0	0	402	0	0	340	0	0	537
Lane Group Flow (vph)	159	845	171	84	779	147	195	0	340	116	0	73
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot		Perm	Prot		Over
Protected Phases	7	4		3	8		5			1		7
Permitted Phases			4			8			2			
Actuated Green, G (s)	8.4	22.4	22.4	4.8	18.8	18.8	29.3		19.0	5.8		8.4
Effective Green, g (s)	8.4	22.4	22.4	4.8	18.8	18.8	29.3		19.0	5.8		8.4
Actuated g/C Ratio	0.12	0.32	0.32	0.07	0.27	0.27	0.42		0.27	0.08		0.12
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	212	1132	506	121	950	425	740		756	146		334
v/s Ratio Prot	c0.09	c0.24		0.05	0.22		0.11			c0.07		0.03
v/s Ratio Perm			0.11			0.09			c0.12			
v/c Ratio	0.75	0.75	0.34	0.69	0.82	0.35	0.26		0.45	0.79		0.22
Uniform Delay, d1	29.8	21.3	18.1	31.9	24.0	20.6	13.3		21.2	31.5		27.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	13.8	2.7	0.4	15.9	5.6	0.5	0.2		1.9	25.0		0.3
Delay (s)	43.6	24.0	18.5	47.7	29.6	21.1	13.5		23.1	56.5		28.2
Level of Service	D	C	B	D	C	C	B		C	E		C
Approach Delay (s)		24.1			27.4			21.0			32.7	
Approach LOS		C			C			C			C	

Intersection Summary		
HCM 2000 Control Delay	25.9	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.67	C
Actuated Cycle Length (s)	70.0	Sum of lost time (s)
Intersection Capacity Utilization	60.2%	18.0
Analysis Period (min)	15	ICU Level of Service
		B

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Baseline Rd & SR-210 Ramp

05/01/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘		↗↗	↘		↗↗
Traffic Volume (vph)	186	889	549	46	810	375	122	0	663	73	0	524
Future Volume (vph)	186	889	549	46	810	375	122	0	663	73	0	524
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.88	1.00		0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	202	966	597	50	880	408	133	0	721	79	0	570
RTOR Reduction (vph)	0	0	355	0	0	283	0	0	301	0	0	491
Lane Group Flow (vph)	202	966	242	50	880	125	133	0	420	79	0	79
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot		Perm	Prot		Over
Protected Phases	7	4		3	8		5			1		7
Permitted Phases			4			8			2			
Actuated Green, G (s)	10.4	30.4	30.4	3.0	23.0	23.0	28.1		19.2	4.4		10.4
Effective Green, g (s)	10.4	30.4	30.4	3.0	23.0	23.0	28.1		19.2	4.4		10.4
Actuated g/C Ratio	0.14	0.41	0.41	0.04	0.31	0.31	0.37		0.26	0.06		0.14
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	245	1434	641	70	1085	485	663		713	103		386
v/s Ratio Prot	c0.11	0.27		0.03	c0.25		0.08			c0.04		0.03
v/s Ratio Perm			0.15			0.08			c0.15			
v/c Ratio	0.82	0.67	0.38	0.71	0.81	0.26	0.20		0.59	0.77		0.20
Uniform Delay, d1	31.4	18.2	15.7	35.6	24.0	19.6	15.9		24.4	34.8		28.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	19.7	1.3	0.4	29.1	4.7	0.3	0.1		3.6	28.3		0.3
Delay (s)	51.1	19.5	16.0	64.6	28.7	19.9	16.0		28.0	63.1		28.9
Level of Service	D	B	B	E	C	B	B		C	E		C
Approach Delay (s)		21.9			27.3			26.1			33.1	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	19.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↑	↕	↕	↕	
Traffic Vol, veh/h	9	70	4	136	86	38	7	396	149	36	402	8
Future Vol, veh/h	9	70	4	136	86	38	7	396	149	36	402	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	55	-	55	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	76	4	148	93	41	8	430	162	39	437	9

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1114	1128	442	1006	970	430	446	0	0	592	0	0
Stage 1	520	520	-	446	446	-	-	-	-	-	-	-
Stage 2	594	608	-	560	524	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	185	204	615	220	253	625	1114	-	-	984	-	-
Stage 1	539	532	-	591	574	-	-	-	-	-	-	-
Stage 2	491	486	-	513	530	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	117	194	615	~ 147	241	625	1114	-	-	984	-	-
Mov Cap-2 Maneuver	117	194	-	~ 147	241	-	-	-	-	-	-	-
Stage 1	535	511	-	587	570	-	-	-	-	-	-	-
Stage 2	381	483	-	416	509	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	41		83.9		0.1		0.7	
HCM LOS	E		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	187	147	297	984	-	-
HCM Lane V/C Ratio	0.007	-	-	0.482	1.006	0.454	0.04	-	-
HCM Control Delay (s)	8.3	-	-	41	136	26.8	8.8	-	-
HCM Lane LOS	A	-	-	E	F	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	2.3	7.5	2.2	0.1	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	31.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↑	↕	↕	↕	
Traffic Vol, veh/h	6	0	3	82	10	114	6	828	108	97	728	0
Future Vol, veh/h	6	0	3	82	10	114	6	828	108	97	728	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	55	-	55	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	3	89	11	124	7	900	117	105	791	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2041	2032	791	1917	1915	900	791	0	0	1017	0	0
Stage 1	1001	1001	-	914	914	-	-	-	-	-	-	-
Stage 2	1040	1031	-	1003	1001	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	42	57	390	~ 51	68	337	829	-	-	682	-	-
Stage 1	293	321	-	327	352	-	-	-	-	-	-	-
Stage 2	278	310	-	292	321	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	20	48	390	~ 44	57	337	829	-	-	682	-	-
Mov Cap-2 Maneuver	20	48	-	~ 44	57	-	-	-	-	-	-	-
Stage 1	291	272	-	324	349	-	-	-	-	-	-	-
Stage 2	169	308	-	245	272	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	182.7	291.2	0.1	1.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	829	-	-	29 44 241	682	-	-
HCM Lane V/C Ratio	0.008	-	-	0.337 2.026 0.559	0.155	-	-
HCM Control Delay (s)	9.4	-	-	182.7\$ 675.1	37.4 11.2	-	-
HCM Lane LOS	A	-	-	F F E	B	-	-
HCM 95th %tile Q(veh)	0	-	-	1.1 9.3 3.1	0.5	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	21
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕		↶	↷	
Traffic Vol, veh/h	58	281	6	68	269	14	8	173	71	17	172	58
Future Vol, veh/h	58	281	6	68	269	14	8	173	71	17	172	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	305	7	74	292	15	9	188	77	18	187	63
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	2
HCM Control Delay	21.9	21.2	21.8	18.8
HCM LOS	C	C	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	100%	0%	100%	0%	100%	0%
Vol Thru, %	69%	0%	98%	0%	95%	0%	75%
Vol Right, %	28%	0%	2%	0%	5%	0%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	252	58	287	68	283	17	230
LT Vol	8	58	0	68	0	17	0
Through Vol	173	0	281	0	269	0	172
RT Vol	71	0	6	0	14	0	58
Lane Flow Rate	274	63	312	74	308	18	250
Geometry Grp	4b	5	5	5	5	5	5
Degree of Util (X)	0.595	0.142	0.659	0.167	0.648	0.043	0.54
Departure Headway (Hd)	7.826	8.137	7.606	8.133	7.581	8.474	7.776
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	460	442	477	442	477	423	465
Service Time	5.877	5.865	5.334	5.861	5.31	6.211	5.514
HCM Lane V/C Ratio	0.596	0.143	0.654	0.167	0.646	0.043	0.538
HCM Control Delay	21.8	12.2	23.9	12.5	23.3	11.6	19.3
HCM Lane LOS	C	B	C	B	C	B	C
HCM 95th-tile Q	3.8	0.5	4.7	0.6	4.5	0.1	3.1

Intersection	
Intersection Delay, s/veh	29.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕		↶	↷	
Traffic Vol, veh/h	61	282	65	89	260	15	83	177	57	12	150	56
Future Vol, veh/h	61	282	65	89	260	15	83	177	57	12	150	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	66	307	71	97	283	16	90	192	62	13	163	61
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	2
HCM Control Delay	35.2	23.6	36.7	20
HCM LOS	E	C	E	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	26%	100%	0%	100%	0%	100%	0%
Vol Thru, %	56%	0%	81%	0%	95%	0%	73%
Vol Right, %	18%	0%	19%	0%	5%	0%	27%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	317	61	347	89	275	12	206
LT Vol	83	61	0	89	0	12	0
Through Vol	177	0	282	0	260	0	150
RT Vol	57	0	65	0	15	0	56
Lane Flow Rate	345	66	377	97	299	13	224
Geometry Grp	4b	5	5	5	5	5	5
Degree of Util (X)	0.794	0.158	0.83	0.235	0.679	0.033	0.528
Departure Headway (Hd)	8.299	8.577	7.923	8.734	8.175	9.197	8.481
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	434	418	456	410	442	388	423
Service Time	6.369	6.345	5.69	6.505	5.946	6.972	6.254
HCM Lane V/C Ratio	0.795	0.158	0.827	0.237	0.676	0.034	0.53
HCM Control Delay	36.7	13	39.1	14.2	26.7	12.3	20.4
HCM Lane LOS	E	B	E	B	D	B	C
HCM 95th-tile Q	7.1	0.6	8	0.9	4.9	0.1	3

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↕		↘	↕	
Traffic Vol, veh/h	94	155	57	17	151	40	62	148	36	31	151	85
Future Vol, veh/h	94	155	57	17	151	40	62	148	36	31	151	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	168	62	18	164	43	67	161	39	34	164	92
Number of Lanes	1	1	1	1	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	12.1	12.4	11.4	11.6
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	58%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	42%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	99	85	94	155	57	17	151	40	31	101
LT Vol	62	0	0	94	0	0	17	0	0	31	0
Through Vol	0	99	49	0	155	0	0	151	0	0	101
RT Vol	0	0	36	0	0	57	0	0	40	0	0
Lane Flow Rate	67	107	93	102	168	62	18	164	43	34	109
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.14	0.209	0.173	0.209	0.321	0.106	0.039	0.323	0.077	0.07	0.212
Departure Headway (Hd)	7.504	7.004	6.709	7.358	6.858	6.158	7.584	7.084	6.384	7.469	6.969
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	474	508	531	485	521	577	469	504	556	476	511
Service Time	5.3	4.8	4.504	5.149	4.649	3.949	5.382	4.882	4.182	5.262	4.762
HCM Lane V/C Ratio	0.141	0.211	0.175	0.21	0.322	0.107	0.038	0.325	0.077	0.071	0.213
HCM Control Delay	11.5	11.7	10.9	12.1	12.9	9.7	10.7	13.3	9.7	10.8	11.7
HCM Lane LOS	B	B	B	B	B	A	B	B	A	B	B
HCM 95th-tile Q	0.5	0.8	0.6	0.8	1.4	0.4	0.1	1.4	0.2	0.2	0.8

Intersection	
Intersection Delay, s/veh	23.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↘	↙	↑	↘	↙	↕		↙	↕	
Traffic Vol, veh/h	55	302	85	55	288	101	50	156	52	120	218	45
Future Vol, veh/h	55	302	85	55	288	101	50	156	52	120	218	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	328	92	60	313	110	54	170	57	130	237	49
Number of Lanes	1	1	1	1	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	29.7	26.7	15.3	16.6
HCM LOS	D	D	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	50%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	50%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	104	104	55	302	85	55	288	101	120	145
LT Vol	50	0	0	55	0	0	55	0	0	120	0
Through Vol	0	104	52	0	302	0	0	288	0	0	145
RT Vol	0	0	52	0	0	85	0	0	101	0	0
Lane Flow Rate	54	113	113	60	328	92	60	313	110	130	158
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.148	0.292	0.281	0.152	0.792	0.205	0.153	0.756	0.244	0.341	0.391
Departure Headway (Hd)	9.801	9.301	8.951	9.182	8.682	7.982	9.19	8.69	7.99	9.414	8.914
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	366	387	401	391	417	450	390	416	450	382	404
Service Time	7.555	7.055	6.705	6.931	6.431	5.731	6.937	6.437	5.737	7.165	6.665
HCM Lane V/C Ratio	0.148	0.292	0.282	0.153	0.787	0.204	0.154	0.752	0.244	0.34	0.391
HCM Control Delay	14.3	15.9	15.2	13.6	37.4	12.8	13.6	33.9	13.3	17	17.3
HCM Lane LOS	B	C	C	B	E	B	B	D	B	C	C
HCM 95th-tile Q	0.5	1.2	1.1	0.5	6.9	0.8	0.5	6.2	0.9	1.5	1.8

HCM Signalized Intersection Capacity Analysis

4: Baseline Rd & SR-210 Ramp

05/01/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘		↗↗	↘		↗↗
Traffic Volume (vph)	146	777	490	77	717	505	172	0	626	107	0	547
Future Volume (vph)	146	777	490	77	717	505	172	0	626	107	0	547
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.88	1.00		0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	159	845	533	84	779	549	187	0	680	116	0	595
RTOR Reduction (vph)	0	0	362	0	0	402	0	0	340	0	0	524
Lane Group Flow (vph)	159	845	171	84	779	147	187	0	340	116	0	71
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot		Perm	Prot		Over
Protected Phases	7	4		3	8		5			1		7
Permitted Phases			4			8			2			
Actuated Green, G (s)	8.4	22.4	22.4	4.8	18.8	18.8	29.3		19.0	5.8		8.4
Effective Green, g (s)	8.4	22.4	22.4	4.8	18.8	18.8	29.3		19.0	5.8		8.4
Actuated g/C Ratio	0.12	0.32	0.32	0.07	0.27	0.27	0.42		0.27	0.08		0.12
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	212	1132	506	121	950	425	740		756	146		334
v/s Ratio Prot	c0.09	c0.24		0.05	0.22		0.11			c0.07		0.03
v/s Ratio Perm			0.11			0.09			c0.12			
v/c Ratio	0.75	0.75	0.34	0.69	0.82	0.35	0.25		0.45	0.79		0.21
Uniform Delay, d1	29.8	21.3	18.1	31.9	24.0	20.6	13.2		21.2	31.5		27.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	13.8	2.7	0.4	15.9	5.6	0.5	0.2		1.9	25.0		0.3
Delay (s)	43.6	24.0	18.5	47.7	29.6	21.1	13.4		23.1	56.5		28.1
Level of Service	D	C	B	D	C	C	B		C	E		C
Approach Delay (s)		24.1			27.4			21.0			32.8	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Baseline Rd & SR-210 Ramp

05/01/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	176	889	539	46	810	375	122	0	663	73	0	524
Future Volume (vph)	176	889	539	46	810	375	122	0	663	73	0	524
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.88	1.00		0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770		2787	1770		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	191	966	586	50	880	408	133	0	721	79	0	570
RTOR Reduction (vph)	0	0	349	0	0	282	0	0	300	0	0	492
Lane Group Flow (vph)	191	966	237	50	880	126	133	0	421	79	0	78
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot		Perm	Prot		Over
Protected Phases	7	4		3	8		5			1		7
Permitted Phases			4			8			2			
Actuated Green, G (s)	10.2	30.3	30.3	3.0	23.1	23.1	28.2		19.3	4.4		10.2
Effective Green, g (s)	10.2	30.3	30.3	3.0	23.1	23.1	28.2		19.3	4.4		10.2
Actuated g/C Ratio	0.14	0.40	0.40	0.04	0.31	0.31	0.38		0.26	0.06		0.14
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	240	1429	639	70	1090	487	665		717	103		379
v/s Ratio Prot	c0.11	0.27		0.03	c0.25		0.08			c0.04		0.03
v/s Ratio Perm			0.15			0.08			c0.15			
v/c Ratio	0.80	0.68	0.37	0.71	0.81	0.26	0.20		0.59	0.77		0.20
Uniform Delay, d1	31.4	18.3	15.7	35.6	23.9	19.5	15.8		24.4	34.8		28.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	16.5	1.3	0.4	29.1	4.5	0.3	0.1		3.5	28.3		0.3
Delay (s)	47.9	19.6	16.0	64.6	28.4	19.8	15.9		27.9	63.1		29.1
Level of Service	D	B	B	E	C	B	B		C	E		C
Approach Delay (s)		21.5			27.1			26.0			33.2	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	25.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection												
Int Delay, s/veh	18.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↑	↕	↕	↕	
Traffic Vol, veh/h	9	70	4	136	86	38	7	396	142	36	402	8
Future Vol, veh/h	9	70	4	136	86	38	7	396	142	36	402	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	55	-	55	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	76	4	148	93	41	8	430	154	39	437	9

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1110	1120	442	1006	970	430	446	0	0	584	0	0
Stage 1	520	520	-	446	446	-	-	-	-	-	-	-
Stage 2	590	600	-	560	524	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	187	206	615	220	253	625	1114	-	-	991	-	-
Stage 1	539	532	-	591	574	-	-	-	-	-	-	-
Stage 2	494	490	-	513	530	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	118	197	615	148	241	625	1114	-	-	991	-	-
Mov Cap-2 Maneuver	118	197	-	148	241	-	-	-	-	-	-	-
Stage 1	535	511	-	587	570	-	-	-	-	-	-	-
Stage 2	383	487	-	416	509	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	40.3		82.7		0.1		0.7	
HCM LOS	E		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	189	148	297	991	-	-
HCM Lane V/C Ratio	0.007	-	-	0.477	0.999	0.454	0.039	-	-
HCM Control Delay (s)	8.3	-	-	40.3	133.6	26.8	8.8	-	-
HCM Lane LOS	A	-	-	E	F	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	2.3	7.4	2.2	0.1	-	-

Intersection												
Int Delay, s/veh	31.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↑	↕	↕	↕	
Traffic Vol, veh/h	6	0	3	82	10	114	6	828	108	97	728	0
Future Vol, veh/h	6	0	3	82	10	114	6	828	108	97	728	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	55	-	55	135	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	3	89	11	124	7	900	117	105	791	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2041	2032	791	1917	1915	900	791	0	0	1017	0	0
Stage 1	1001	1001	-	914	914	-	-	-	-	-	-	-
Stage 2	1040	1031	-	1003	1001	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	42	57	390	~ 51	68	337	829	-	-	682	-	-
Stage 1	293	321	-	327	352	-	-	-	-	-	-	-
Stage 2	278	310	-	292	321	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	20	48	390	~ 44	57	337	829	-	-	682	-	-
Mov Cap-2 Maneuver	20	48	-	~ 44	57	-	-	-	-	-	-	-
Stage 1	291	272	-	324	349	-	-	-	-	-	-	-
Stage 2	169	308	-	245	272	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	182.7		291.2		0.1		1.3	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	829	-	-	29	44	241	682	-	-
HCM Lane V/C Ratio	0.008	-	-	0.337	2.026	0.559	0.155	-	-
HCM Control Delay (s)	9.4	-	-	182.7	675.1	37.4	11.2	-	-
HCM Lane LOS	A	-	-	F	F	E	B	-	-
HCM 95th %tile Q(veh)	0	-	-	1.1	9.3	3.1	0.5	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	20.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕		↶	↷	
Traffic Vol, veh/h	58	274	6	68	269	14	8	173	71	17	172	58
Future Vol, veh/h	58	274	6	68	269	14	8	173	71	17	172	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	298	7	74	292	15	9	188	77	18	187	63
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	2
HCM Control Delay	20.6	20.5	21.2	18.3
HCM LOS	C	C	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	100%	0%	100%	0%	100%	0%
Vol Thru, %	69%	0%	98%	0%	95%	0%	75%
Vol Right, %	28%	0%	2%	0%	5%	0%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	252	58	280	68	283	17	230
LT Vol	8	58	0	68	0	17	0
Through Vol	173	0	274	0	269	0	172
RT Vol	71	0	6	0	14	0	58
Lane Flow Rate	274	63	304	74	308	18	250
Geometry Grp	4b	5	5	5	5	5	5
Degree of Util (X)	0.585	0.14	0.633	0.164	0.636	0.043	0.53
Departure Headway (Hd)	7.689	8.012	7.482	7.991	7.44	8.33	7.634
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	466	445	481	446	483	428	470
Service Time	5.787	5.806	5.275	5.784	5.233	6.125	5.428
HCM Lane V/C Ratio	0.588	0.142	0.632	0.166	0.638	0.042	0.532
HCM Control Delay	21.2	12.1	22.4	12.4	22.5	11.5	18.8
HCM Lane LOS	C	B	C	B	C	B	C
HCM 95th-tile Q	3.7	0.5	4.3	0.6	4.4	0.1	3

Intersection	
Intersection Delay, s/veh	29.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕		↶	↷	
Traffic Vol, veh/h	61	282	65	89	250	15	83	177	57	12	150	56
Future Vol, veh/h	61	282	65	89	250	15	83	177	57	12	150	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	66	307	71	97	272	16	90	192	62	13	163	61
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	2
HCM Control Delay	34.5	22.3	36	19.8
HCM LOS	D	C	E	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	26%	100%	0%	100%	0%	100%	0%
Vol Thru, %	56%	0%	81%	0%	94%	0%	73%
Vol Right, %	18%	0%	19%	0%	6%	0%	27%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	317	61	347	89	265	12	206
LT Vol	83	61	0	89	0	12	0
Through Vol	177	0	282	0	250	0	150
RT Vol	57	0	65	0	15	0	56
Lane Flow Rate	345	66	377	97	288	13	224
Geometry Grp	4b	5	5	5	5	5	5
Degree of Util (X)	0.789	0.157	0.825	0.234	0.652	0.033	0.524
Departure Headway (Hd)	8.242	8.526	7.873	8.709	8.149	9.136	8.42
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	438	420	460	411	444	391	428
Service Time	6.308	6.291	5.636	6.478	5.918	6.909	6.192
HCM Lane V/C Ratio	0.788	0.157	0.82	0.236	0.649	0.033	0.523
HCM Control Delay	36	12.9	38.3	14.1	25	12.2	20.2
HCM Lane LOS	E	B	E	B	C	B	C
HCM 95th-tile Q	7	0.6	7.9	0.9	4.5	0.1	3

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↑	↗	↙	↕		↙	↕	
Traffic Vol, veh/h	94	148	57	17	151	40	62	148	36	31	151	85
Future Vol, veh/h	94	148	57	17	151	40	62	148	36	31	151	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	161	62	18	164	43	67	161	39	34	164	92
Number of Lanes	1	1	1	1	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	11.9	12.3	11.3	11.6
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	58%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	42%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	99	85	94	148	57	17	151	40	31	101
LT Vol	62	0	0	94	0	0	17	0	0	31	0
Through Vol	0	99	49	0	148	0	0	151	0	0	101
RT Vol	0	0	36	0	0	57	0	0	40	0	0
Lane Flow Rate	67	107	93	102	161	62	18	164	43	34	109
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.14	0.208	0.172	0.209	0.306	0.106	0.039	0.322	0.077	0.07	0.211
Departure Headway (Hd)	7.481	6.981	6.685	7.354	6.854	6.154	7.563	7.063	6.363	7.446	6.946
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	476	510	532	485	521	577	470	506	558	478	513
Service Time	5.274	4.774	4.478	5.142	4.642	3.942	5.357	4.857	4.157	5.236	4.736
HCM Lane V/C Ratio	0.141	0.21	0.175	0.21	0.309	0.107	0.038	0.324	0.077	0.071	0.212
HCM Control Delay	11.5	11.6	10.9	12.1	12.7	9.7	10.7	13.2	9.7	10.8	11.6
HCM Lane LOS	B	B	B	B	B	A	B	B	A	B	B
HCM 95th-tile Q	0.5	0.8	0.6	0.8	1.3	0.4	0.1	1.4	0.2	0.2	0.8

Intersection	
Intersection Delay, s/veh	22.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↑	↷	↶	↑	↷	↶	↶↷		↶	↶↷	
Traffic Vol, veh/h	55	302	85	55	278	101	50	156	52	120	218	45
Future Vol, veh/h	55	302	85	55	278	101	50	156	52	120	218	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	328	92	60	302	110	54	170	57	130	237	49
Number of Lanes	1	1	1	1	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	3	3
HCM Control Delay	29.2	25	15.2	16.5
HCM LOS	D	C	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	50%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	50%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	104	104	55	302	85	55	278	101	120	145
LT Vol	50	0	0	55	0	0	55	0	0	120	0
Through Vol	0	104	52	0	302	0	0	278	0	0	145
RT Vol	0	0	52	0	0	85	0	0	101	0	0
Lane Flow Rate	54	113	113	60	328	92	60	302	110	130	158
Geometry Grp	6	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.147	0.29	0.279	0.152	0.787	0.204	0.152	0.728	0.243	0.339	0.389
Departure Headway (Hd)	9.747	9.247	8.897	9.132	8.632	7.932	9.168	8.668	7.968	9.362	8.862
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	368	389	404	393	420	453	392	417	451	385	406
Service Time	7.5	7	6.65	6.879	6.379	5.679	6.916	6.416	5.716	7.112	6.612
HCM Lane V/C Ratio	0.147	0.29	0.28	0.153	0.781	0.203	0.153	0.724	0.244	0.338	0.389
HCM Control Delay	14.2	15.8	15.1	13.5	36.7	12.7	13.6	31.5	13.3	16.9	17.2
HCM Lane LOS	B	C	C	B	E	B	B	D	B	C	C
HCM 95th-tile Q	0.5	1.2	1.1	0.5	6.8	0.8	0.5	5.7	0.9	1.5	1.8

APPENDIX H

SGVCOG VMT EVALUATION TOOL SCREENING RESULTS

Project Details

Timestamp of Analysis: May 22, 2023, 05:16:53 PM

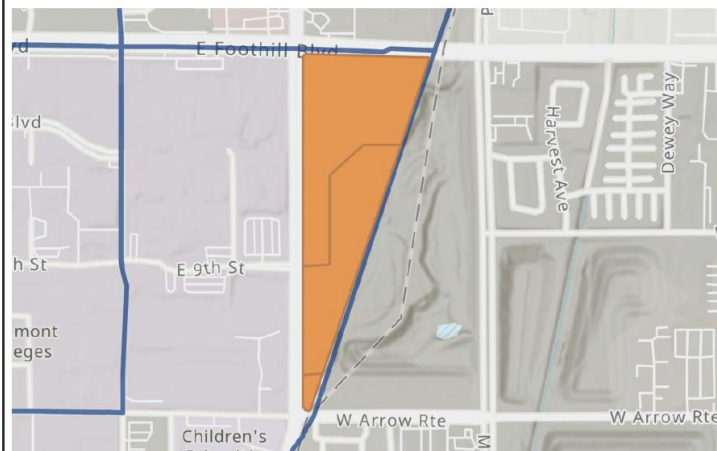
Project Name: CMC East Campus

Project Description: Proposed uses: fields for baseball, softball, soccer, three multi-purpose fields, football/track, and golf practice, all to be used solely by CMC

Project Location

jurisdiction:	apn	TAZ
Claremont	8308-025-014	22453100
	8308-025-015	22453100
Inside a TPA?	8308-025-016	22453100

No (Fail)



Analysis Details

Data Version: SCAG Regional Travel Demand Model
2016 RTP Base Year 2012

Analysis Methodology: TAZ

Baseline Year: 2023

Project Land Use

Residential:

Single Family DU:

Multifamily DU:

Total DUs: 0

Non-Residential:

Office KSF:

Local Serving Retail KSF:

Industrial KSF:

Residential Affordability (percent of all units):

Extremely Low Income: 0 %

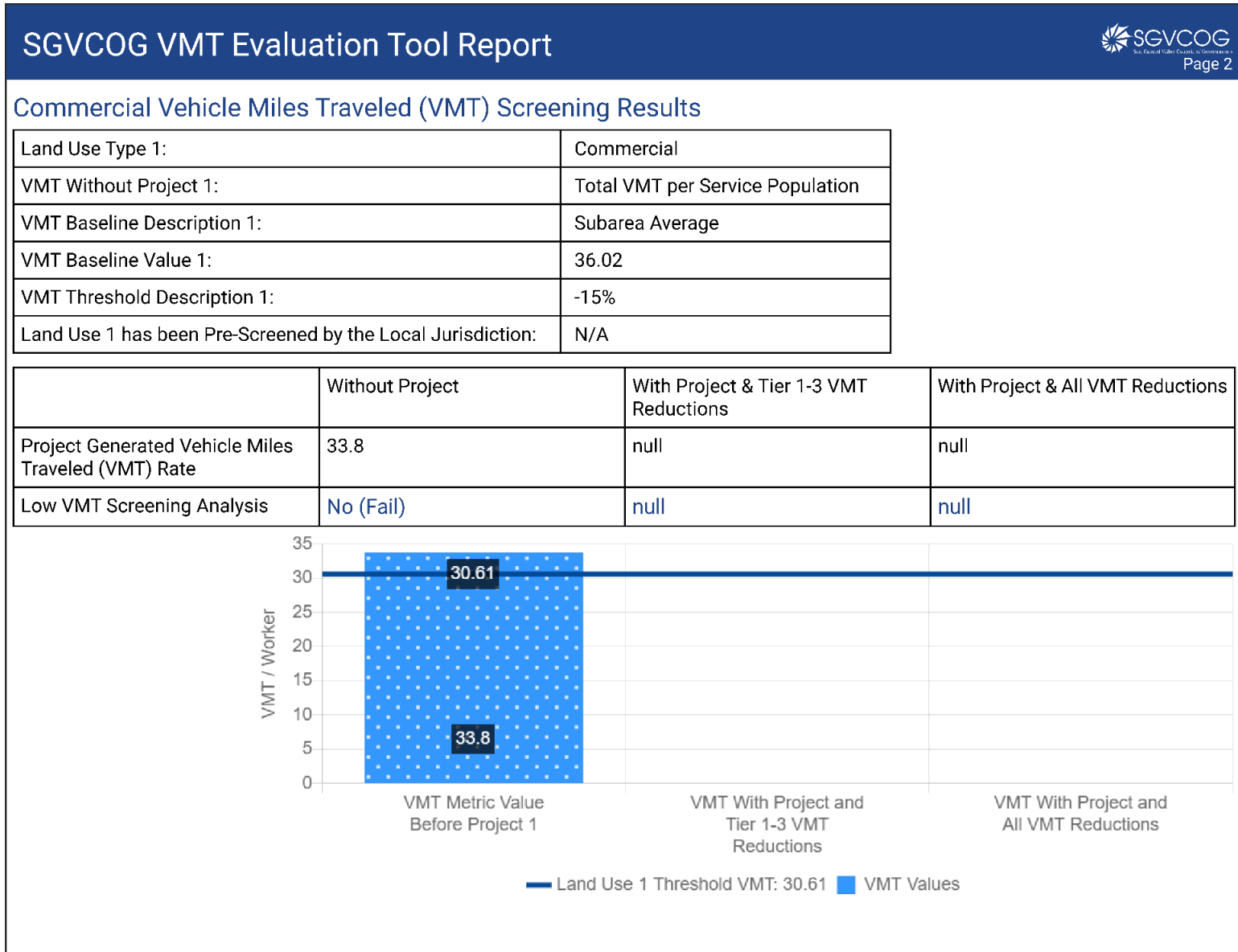
Very Low Income: 0 %

Low Income: 0 %

Parking:

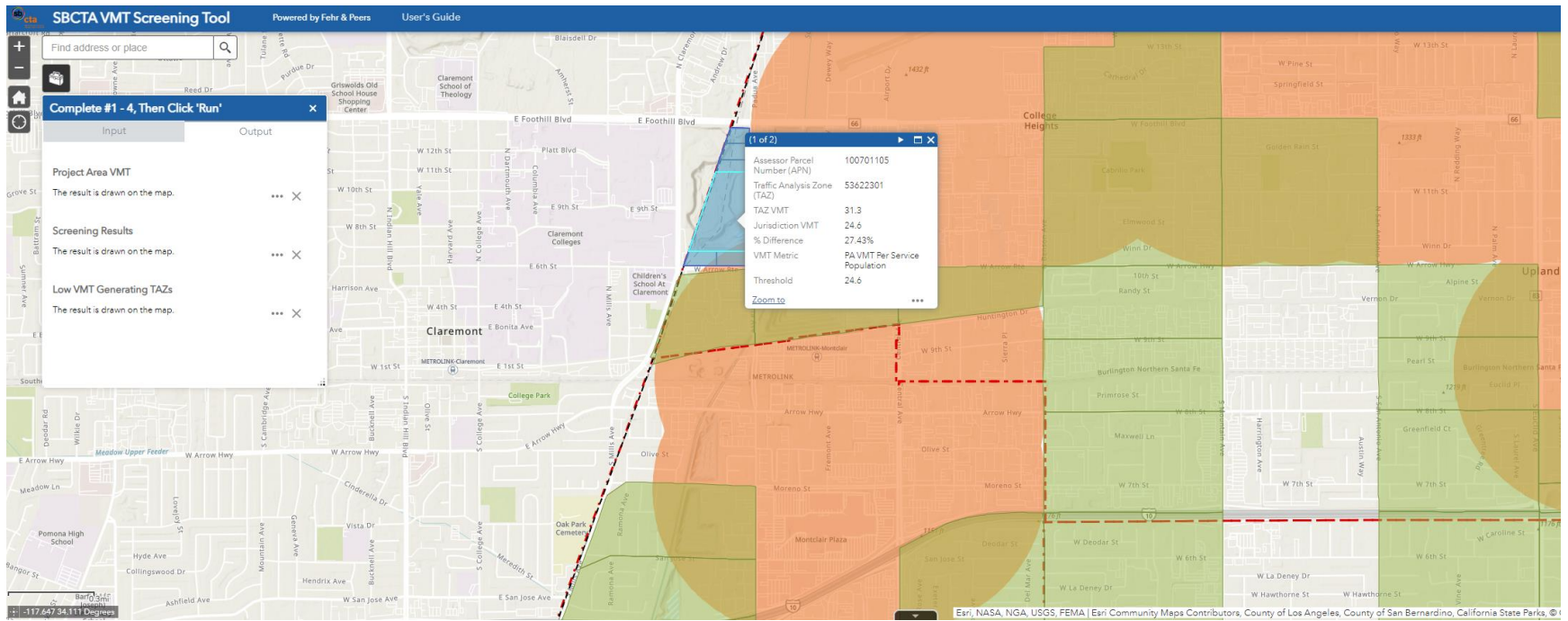
Motor Vehicle Parking:

Bicycle Parking:



APPENDIX I

SBCTA VMT SCREENING TOOL SCREENING RESULTS



APPENDIX J

CITIES OF CLAREMONT & UPLAND MOUs

TRAFFIC ANALYSIS - MEMORANDUM OF UNDERSTANDING (MOU) Revised February 14, 2024

This MOU acknowledges that the traffic analysis for the following project will be prepared in accordance with the latest traffic study policies and guidelines of the Cities of Claremont and Upland. There will be one traffic study for the entire Project which will cover both jurisdictions.

A. Project Information:

Project Name: Claremont-McKenna College Roberts Campus East (East Campus Update): Traffic Impact Study and VMT Analysis

Project Address: NE Corner of W Arrow Route and Claremont Boulevard

Project Description: Claremont McKenna College plans to modify and refine the site plan and entitlements for the Roberts Campus East, which is an existing inert debris landfill. The site has existing entitlements approved by the cities of Upland and Claremont in 2016. The proposed modification will include fields for baseball, softball, soccer, three multi-purpose fields, football/track, and golf practice, all to be used solely by CMC and it does not propose changes in the type of use or increase the intensity or density. The City of Upland served as the lead agency in 2016 and will continue to do so for this Project. CMC proposes two alternative site plans (Scenario 2, and Scenario 2B), each of which are provided in Attachment A. Each alternative site plan contains the same uses and programming, but the layout and vehicular access and circulation differ among the three scenarios.

B. Geographic Distribution: N 25 % S 25 % E 15 % W 35 %

Attachment B provides a graphic illustrating the overall project trip distribution. Trip distribution is similar across the two scenarios.

Trip Generation Rate(s): Soccer Complex (Land Use Code #488, ITE 11th Edition), Multi-Purpose Fields, Baseball Field, Softball Field, Football/Track & Field/Lacrosse, and Rugby/Soccer. The College provides the spectator and participant numbers, which are utilized to identify the number of trips. The trip generation table in Attachment C provides a description of the proposed land uses, ITE rates, estimated morning, and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. The project trip generation is summarized in the table below:

Day	Activity	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Weekday	Practice Day	1	0	1	11	149	160
	Game Day	1	0	1	11	249	260
Weekend	Game Day (Fall)	358	19	377	6	529	535
	Game Day (Spring)	218	19	237	6	315	321

C. Analysis Scenarios:

- Existing Year (2023) Conditions
- Opening Year (2027) Conditions
 - Opening Year Without Project Conditions
 - Opening Year Plus Project Conditions
- Future/Horizon Year (2045) Conditions
 - Future/Horizon Year Without Project Conditions
 - Future/Horizon Year Plus Project Conditions

Related Projects List attached?

No Yes

[See attachment]

Capacity Analysis Methodologies: Signalized and unsignalized intersections will be analyzed using the latest HCM operational analysis methodologies and present the analysis results in Level-of-Service (LOS) and Delay, as per the City of Claremont's *Draft Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (August 2020).

Study Intersections:

Study Intersection ID, Location and Jurisdiction*					
1.) Base Line Rd. & Indian Hill Blvd.	C	11.) Foothill Blvd. & Monte Vista Ave.	U	21.) 1st St. & Claremont Blvd.	C
2.) Base Line Rd. & Mills Ave	C	12.) Foothill Blvd. & Central Ave.	U	22.) Arrow Hwy. & Indian Hill Blvd.	C
3.) Base Line Rd. & Monte Vista Ave./Padua Ave.	C	13.) 6th St. & Indian Hill Blvd.	C	23.) Arrow Hwy. & College Ave.	C
4.) Base Line Rd. & I-210 Ramps	C	14.) 6th St. & College Ave.	C	24.) Arrow Hwy. & Claremont Blvd./Mills Ave.	C
5.) Claremont Blvd. & Monte Vista Ave.	C	15.) 6th St. & Mills Ave.	C	25.) Claremont Blvd. & 9th St.	C
6.) Foothill Blvd. & Indian Hill Blvd.	C	16.) 6th St./Arrow Rte. & Claremont Blvd.	U	26.) Foothill Blvd. & Project Dwy. N	C
7.) Foothill Blvd. & College Ave.	C	17.) Arrow Rte. & Monte Vista Ave.	U	27.) Claremont Blvd. & Project Dwy. SW	C
8.) Foothill Blvd. & Dartmouth Ave.	C	18.) Harrison Ave./5th St. & Indian Hill Blvd.	C	28.) Monte Vista Ave. & Project Dwy. SE	U
9.) Foothill Blvd. & Mills Ave.	C	19.) 1st St. & Indian Hill Blvd.	C	29.) (Ex. three-way & Future four-way intersection)	U
10.) Foothill Blvd. & Claremont Blvd.	C	20.) 1st St. & College Ave.	C		

* C: = City of Claremont; U = City of Upland
 Highlighted intersections are located within the jurisdiction of the City of Claremont

Study Roadways:

Study Roadway Segment ID, Location and Local Jurisdiction*					
A.) Foothill Boulevard east of Monte Vista Avenue	U	E.) 9th Street west of Claremont Boulevard	C	I.) Arrow Route between College Park Dr. & Monte Vista Ave.	U
B.) Monte Vista Ave between Foothill Boulevard & 11th Street	U	F.) Claremont Boulevard between 9th Street & 6th St./Arrow Rt.	C	J.) Claremont Boulevard south of 6th Street / Arrow Route	C
C.) Claremont Boulevard between Foothill Boulevard & 9th Street	C	G.) 6th Street west of Mills Avenue	C	K.) 1st Street between Claremont Blvd. & Monte Vista Ave. (future segment)	U
D.) 9th Street east of Mills Avenue	C	H.) Arrow Route between Claremont Bl. & College Park Dr.	U		

* C: = City of Claremont; U = City of Upland
 Highlighted Roadway segments are located within the jurisdiction of the City of Claremont

	Yes	No
Transit Usage		X
Transportation Demand Management		X
Existing Active Land Use		X ¹
Previous Land Use		X

¹ Existing site is currently vacant land. All proposed athletics facilities, fields, and programs, however, are existing and will be relocated from the adjacent CMC Campus (located just to the west of Claremont Blvd.) to the subject project site.

Additional Sections: Other project-related analyses will be provided in the traffic study, such as event traffic control, ingress, egress, accessibility, public and emergency access, and on-site parking.

D. Vehicle Miles Travelled (VMT) Assessment

As outlined in the City’s guidelines, a VMT screening will be conducted to determine whether the project will need to provide further detailed VMT analyses.

VMT Screening Analysis – KOA will prepare a VMT screening assessment for the project based on both the City of Claremont’s *Transportation Study Guidelines* and the City of Upland’s *Traffic Impact Analysis Guidelines*. Current VMT guidelines allow for projects that are local-serving in nature and presumed to have a less-than-significant VMT impact, including, without limitation, local-serving parks, community colleges, and university student housing projects. While the proposed project does not explicitly match any of the above-listed project types, the proposed project uses are:

- 1) Currently existing and do not include any expanded programs; and
- 2) Can be considered as local serving, as they will primarily cater to the students and faculty of Claremont McKenna College and potentially Pitzer College.

As most of the proposed project facilities will serve as relocations from the existing campus, and all facilities will accommodate uses that currently exist on the campus, the Project will likely generate a relatively low number of “new” trips. KOA will prepare a technical memorandum providing a qualitative screening analysis discussing the local-serving nature of the project uses, and the application of the presumed less-than-significant VMT impact.

Quantitative VMT Analysis – Notwithstanding the findings and conclusions of the VMT screening analysis described above, KOA proposes to conduct a quantitative VMT analysis for the proposed project. Most of the facilities proposed as part of the project may be considered local serving uses in accordance with each agency’s adopted VMT guidelines as discussed above. However, as a conservative measure, KOA will also prepare a quantitative VMT analysis for the project. This analysis will include the calculation of the VMT per service population (students, faculty, spectators, etc.) metric for the project, as well as the calculation of the cumulative link-level boundary Citywide VMT per service population under Without Project and Plus Project conditions. The SGVCOG VMT Evaluation Tool and SBCTA VMT Screening Tool will be used for the Project’s VMT screening evaluation and the quantitative VMT analysis.

E. Traffic Data

KOA has collected traffic volume counts for the majority the locations identified in Section C, above. New traffic counts will be collected for the additional locations requested by the Cities of Claremont and Upland, based on recent correspondences. In order to provide a consistent and correlative traffic engineering/planning study effort, it is assumed that no further traffic count locations will be added to this scope. Any potential additional study locations shall require collaborative discussion with the Project Team and Agency(ies).

F. Signature

Consultant

Name: Greg Garces, KOA | Lochner

Address: 333 S. Anita Drive, Suite 800
Orange, CA 92868

Phone: (714) 573-0317

E-Mail: ggarces@hwlochner.com

Responsible Agency

Maria B. Tipping, P.E.

City Engineer, City of Claremont

Community Development Department

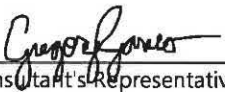
207 Harvard Avenue,

Claremont, CA 91711

(909) 399-5474

mtipping@ci.claremont.ca.us

Approved by:



Consultant's Representative 2/14/24
Date



City of Claremont Representative 3/7/24
Date

TRAFFIC ANALYSIS - MEMORANDUM OF UNDERSTANDING (MOU)
Revised February 14, 2024

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B. Geographic Distribution: N 25 % S 25 % E 15 % W 35 %

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C. Analysis Scenarios:

- Existing Year (2023) Conditions
- Opening Year (2027) Conditions
 - Opening Year Without Project Conditions
 - Opening Year Plus Project Conditions
- Future/Horizon Year (2045) Conditions
 - Future/Horizon Year Without Project Conditions
 - Future/Horizon Year Plus Project Conditions

Related Projects List attached?

No Yes

[See attachment]

Capacity Analysis Methodologies: Signalized and unsignalized intersections will be analyzed using the latest HCM operational analysis methodologies and present the analysis results in Level-of-Service (LOS) and Delay, as per the City of Claremont's *Draft Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (August 2020).

Study Intersections:

Study Intersection ID, Location and Jurisdiction*					
1.) Base Line Rd. & Indian Hill Blvd.	C	11.) Foothill Blvd. & Monte Vista Ave.	U	21.) 1st St. & Claremont Blvd.	C
2.) Base Line Rd. & Mills Ave	C	12.) Foothill Blvd. & Central Ave.	U	22.) Arrow Hwy. & Indian Hill Blvd.	C
3.) Base Line Rd. & Monte Vista Ave./Padua Ave.	C	13.) 6th St. & Indian Hill Blvd.	C	23.) Arrow Hwy. & College Ave.	C
4.) Base Line Rd. & I-210 Ramps	C	14.) 6th St. & College Ave.	C	24.) Arrow Hwy. & Claremont Blvd./Mills Ave.	C
5.) Claremont Blvd. & Monte Vista Ave	C	15.) 6th St. & Mills Ave.	C	25.) Claremont Blvd. & 9th St	C
6.) Foothill Blvd. & Indian Hill Blvd.	C	16.) 6th St./Arrow Rte. & Claremont Blvd.	U	26.) Foothill Blvd. & Project Dwy. N	C
7.) Foothill Blvd. & College Ave.	C	17.) Arrow Rte. & Monte Vista Ave.	U	27.) Claremont Blvd. & Project Dwy. SW	C
8.) Foothill Blvd. & Dartmouth Ave.	C	18.) Hamison Ave./5th St. & Indian Hill Blvd.	C	28.) Monte Vista Ave. & Project Dwy. SE	U
9.) Foothill Blvd. & Mills Ave.	C	19.) 1st St. & Indian Hill Blvd.	C	29.) Monte Vista Ave. & 1st St./Richton St. (Ex. three-way & Future four-way intersection)	U
10.) Foothill Blvd. & Claremont Blvd.	C	20.) 1st St. & College Ave.	C		

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Study Roadway Segment ID, Location and Local Jurisdiction*					
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C.) Claremont Boulevard between Foothill Boulevard & 9th Street	C	G.) 6th Street west of Mills Avenue	C	K.) 1st Street between Claremont Blvd. & Monte Vista Ave. (future segment)	U
D.) 9th Street east of Mills Avenue	C	H.) Arrow Route between Claremont Bl. & College Park Dr.	U		

* C = City of Claremont; U = City of Upland
 Highlighted Roadway segments are located within the jurisdiction of the City of Claremont

	Yes	No
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Transportation Demand Management		X
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Previous Land Use		X

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D. Vehicle Miles Travelled (VMT) Assessment

As outlined in the City’s guidelines, a VMT screening will be conducted to determine whether the project will need to provide further detailed VMT analyses.

VMT Screening Analysis – KOA will prepare a VMT screening assessment for the project based on both the City of Claremont’s *Transportation Study Guidelines* and the City of Upland’s *Traffic Impact Analysis Guidelines*. Current VMT guidelines allow for projects that are local-serving in nature and presumed to have a less-than-significant VMT impact, including, without limitation, local-serving parks, community colleges, and university student housing projects. While the proposed project does not explicitly match any of the above-listed project types, the proposed project uses are:

- 1) Currently existing and do not include any expanded programs; and
- 2) Can be considered as local serving, as they will primarily cater to the students and faculty of Claremont McKenna College and potentially Pitzer College.

As most of the proposed project facilities will serve as relocations from the existing campus, and all facilities will accommodate uses that currently exist on the campus, the Project will likely generate a relatively low number of “new” trips. KOA will prepare a technical memorandum providing a qualitative screening analysis discussing the local-serving nature of the project uses, and the application of the presumed less-than-significant VMT impact.

Quantitative VMT Analysis – Notwithstanding the findings and conclusions of the VMT screening analysis described above, KOA proposes to conduct a quantitative VMT analysis for the proposed project. Most of the facilities proposed as part of the project may be considered local serving uses in accordance with each agency’s adopted VMT guidelines as discussed above. However, as a conservative measure, KOA will also prepare a quantitative VMT analysis for the project. This analysis will include the calculation of the VMT per service population (students, faculty, spectators, etc.) metric for the project, as well as the calculation of the cumulative link-level boundary Citywide VMT per service population under Without Project and Plus Project conditions. The SGVCOG VMT Evaluation Tool and SBCTA VMT Screening Tool will be used for the Project’s VMT screening evaluation and the quantitative VMT analysis.

ATTACHMENT A
PROJECT SITE DIAGRAM (PLAN COMPARISON)



2016 MASTER PLAN

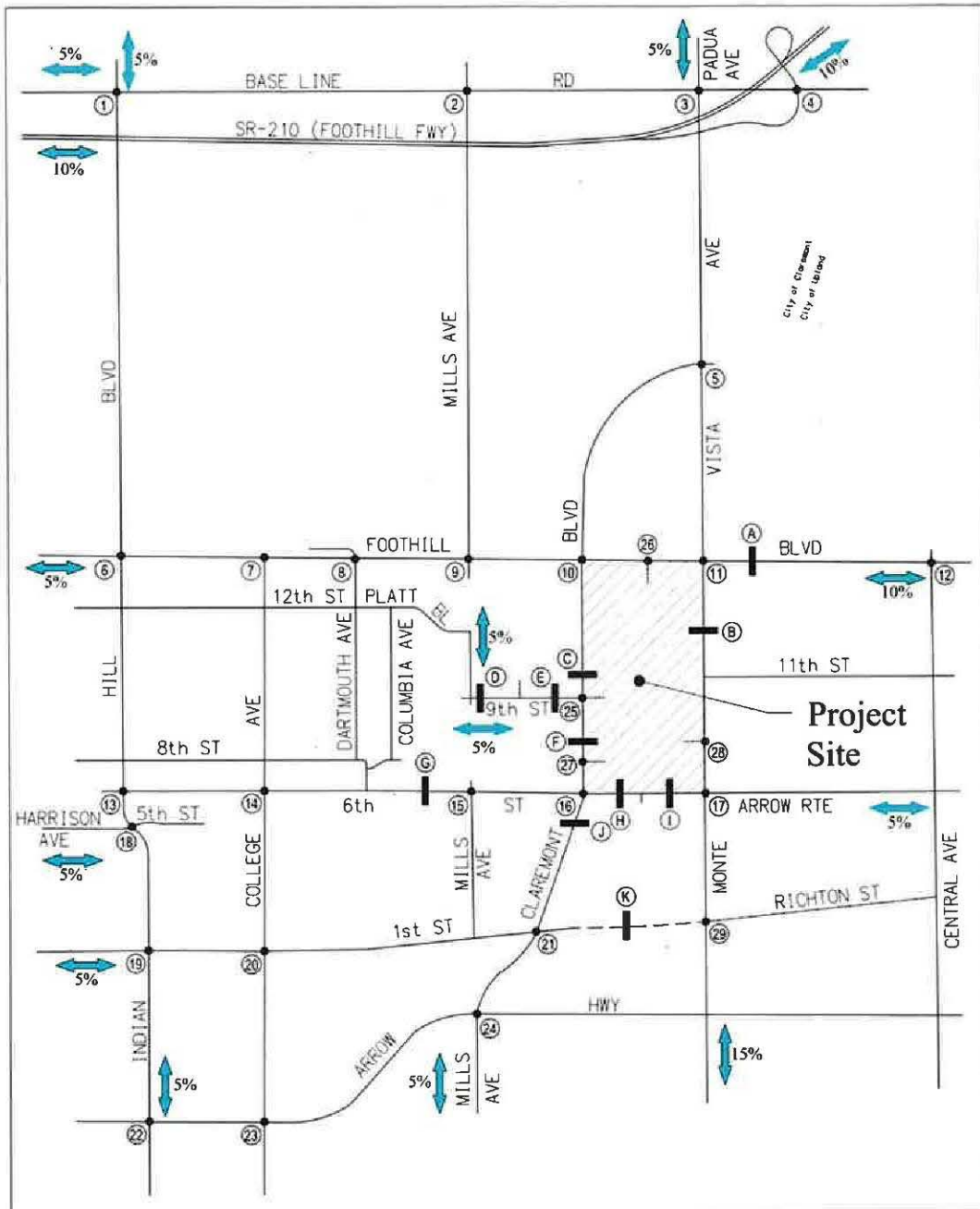


SCENARIO 2



SCENARIO 2B

ATTACHMENT B
PROJECT STUDY AREA, INTERSECTIONS, ROADWAY, AND PROJECT TRIP DISTRIBUTION





ATTACHMENT C
PROJECT TRIP GENERATION TABLE

Claremont McKenna College Robert Campus East																
Project Trip Generation																
Description	Unit	ITE Land Use Code*	Daily 2-way	Weekday						Weekend						
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			
				Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	
Soccer Complex	Fields	488	71.33	0.99	1	0	16.43	11	5	109.17	37.48	18	19	37.48	6	31

*Source: Institute of Transportation Engineers Trip Generation, 11th Edition
 Estimated 15% Inbound, 85% Outbound for PM peak hour (Weekend)

Description	Qty	Daily 2-way	Weekday						Weekend						Notes		
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour					
			Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out			
Weekday Practice Day																	
Multi-Purpose Field (Participants)	1	71	1	1	0	16	11	5	Not Applicable						ITE Land use code 488: Soccer Complex, Weekday		
Baseball Field (Participants)	100	30	-	-	-	25	-	25							-7 team size (including coaches): Baseball @ 100, Softball @ 100, Football (on Track and Field) @ 250		
Softball Field (Participants)	100	30	-	-	-	25	-	25							- 50% walk-in; 50% Drive-in @ 2.5/car		
Football Track and Field (on Track) (Participants)	250	126	-	-	-	63	-	63							- Team size (including coaches): Soccer/Rugby @ 100		
Soccer/Rugby (Participants)	100	50	-	-	-	25	-	25							- 50% walk-in; 50% Drive-in @ 2.5/car		
Golf Practice (Participants)	25	12	-	-	-	6	-	6							- Team size (including coaches): Golf Practice @ 25		
Weekday Practice Day Total		359	1	1	0	160	11	149	- 50% walk-in; 50% Drive-in @ 2.5/car								
Weekday Game Day																	
Multi-Purpose Field (Participants)	1	71	1	1	0	16	11	5	Not Applicable						ITE Land use code 488: Soccer Complex, Weekday		
Baseball (250 Spectators)	250	156	-	-	-	78	-	78							- 500 maximum weekday spectators for Baseball and/or Softball (could all be at one field or split among fields, 50% walk-in, 50% drive-in @ 2.5/car, 1 bus (40 passenger)+2.5 PCE, Visiting team traffic = 2.5 cars)		
Softball (250 Spectators)	250	156	-	-	-	78	-	78							- Football (on Track and Field) @ 250		
Football Track and Field (on Track) (Participants)	250	126	-	-	-	63	-	63							- 50% walk-in and 50% Drive-in @ 2.5/car		
Soccer/Rugby (Participants)	100	50	-	-	-	25	-	25							- Team size (including coaches): Soccer/Rugby @ 100		
Weekday Game Day Total		559	1	1	0	260	11	249							- 50% walk-in; 50% Drive-in @ 2.5/car		
Weekend Game Day (Fall)																	
Multi-Purpose Field (Participants)	1								126	37	18	19	37	6	31	ITE Land use code 488: Soccer Complex, Weekend	
Football (1,600 Spectators)	1,600								610	240	240	-	370	-	370		- Weekend at full stadium capacity (1,600 seats), 50% walk-in, 50% drive-in @ 3.0/car, 60% arrive in hour before, 20% arrive 1-2 hours before, 100% depart the end of game. 1 bus (40 passenger)+2.5 PCE, Visiting team traffic = 2.5 cars
Soccer/Rugby (Spectators)	500								226	100	100	-	128	-	128		- 500 weekend spectators/field, 50% walk-in, 50% drive-in @ 2.5/car, 1 bus (40 passenger)+2.5 PCE, Visiting team traffic = 2.5 cars
Weekend Game Day (Fall) Total									947	377	358	19	535	6	529		
Weekend Game Day (Spring)																	
Multi-Purpose Field (Participants)	1								126	37	18	19	37	6	31	ITE Land use code 488: Soccer Complex, Weekend	
Baseball (250 Spectators)	250								126	50	50	-	78	-	78		- 500 weekend spectators/field, 50% walk-in, 50% drive-in @ 2.5/car, 1 bus (40 passenger)+2.5 PCE, Visiting team traffic = 2.5 cars
Rugby Field (500 Spectators) / 1 Field	500								226	100	100	-	128	-	128		- 500 weekend spectators/field, 50% walk-in, 50% drive-in @ 2.5/car, 1 bus (40 passenger)+2.5 PCE, Visiting team traffic = 2.5 cars
Weekend Game Day (Spring) Total									587	287	218	19	321	6	315		

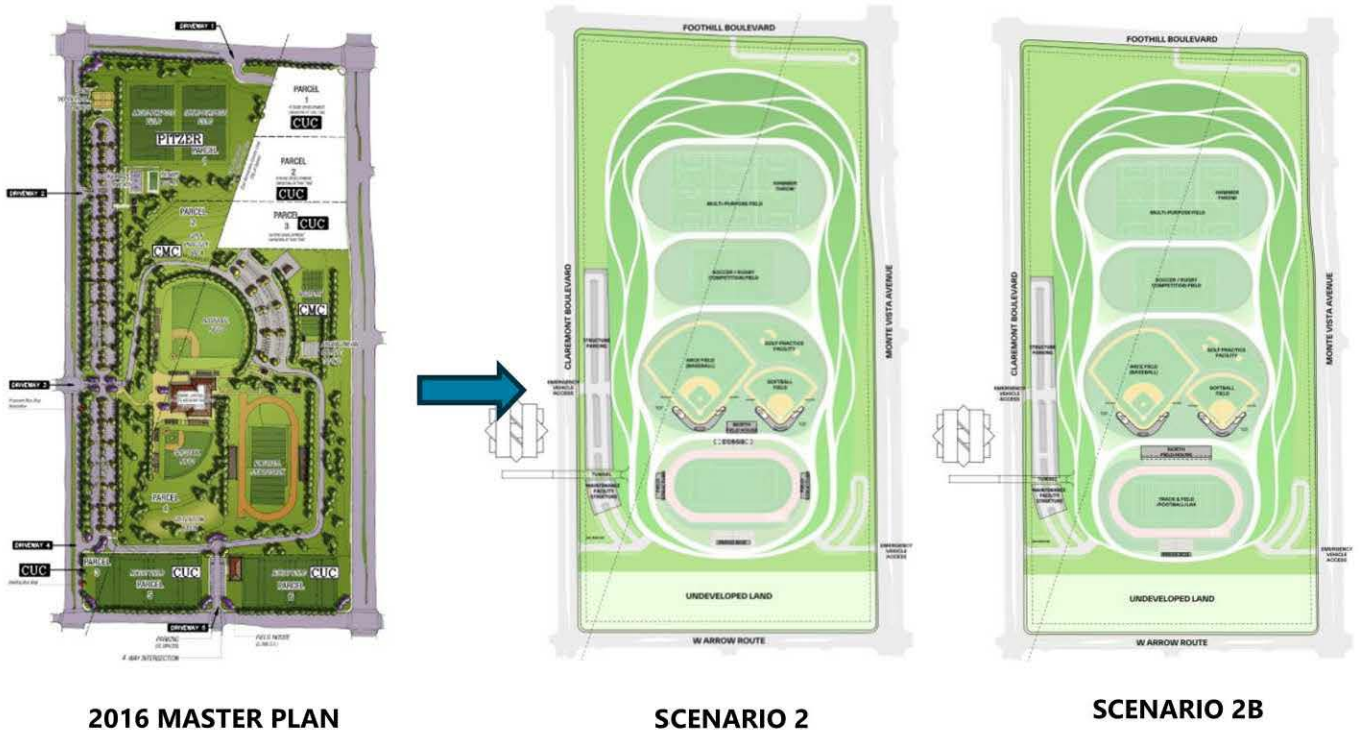
1: Based on maximum spectator occupancy of 1,600 seats
 2: Based on maximum spectator occupancy of 250 seats per field

Cumulative Development Projects List						
No.	Project Name or Firm	Address	City	Description	City Product Planner	Project Status
1	Arbor Pointe SFRs	210 @ Monte Vista (SWC)	Claremont	Tentative Tract Map and Design Review for 13 lot subdivision consisting of 13 SFRs, 13 ADUs, and 11 detached ADUs.	CP	No activity since July 2022. Project inquiry email sent 1/3/23.
2	CGU Master Plan	Generally bounded by Foothill Blvd, Dartmouth Avenue, Seventh Street, and College Avenue	Claremont	Potential addition of up to 475 regularly enrolled students, and 39 faculty and staff, and expansion, remodeling, and replacement of campus facilities, resulting in a potential increase in building area of approximately 170,000 assignable square feet	JD	No activity on this project since early 2017.
3	Doubletree Hotel/Old School House Specific Plan	North of Foothill Blvd. and west of Indian Hill Blvd.	Claremont	126-unit residential condominiums/townhomes (30 in building with new 240-space parking structure and 96 on Colby Circle)	CV/NH	30 units and parking structure completed March 2023. Substantial progress on 96 units currently under construction with all slated for completion over next 4-6 months.
4	Harvey Mudd College 2015 Master Plan Amendment	South of E. Foothill Blvd. and north of Flat Blvd, between N. Dartmouth Avenue and N. Claremont Blvd.	Claremont	Proposed HMC 2015 Master Plan Amendment includes increasing current building floor area from 738,079 GSF to 902,411 903,911 GSF, and increasing HMC enrollment entitlement from 800 students to 900 students.	CV	70,000 square foot academic building (Shanahan Learning Center) completed and occupied Sept. 2013 (net 50K) 48,550 sq. ft. dormitory (Drinkward Dormitory) Completed 2015. 33,000 square foot academic building (McGregor Computer Science) completed and occupied Mar 2021. Approx 35,000 square feet remaining in plan for future academic building to be constructed at SEC of Dartmouth College.
5	Keck Science Center Expansion	925 N Mills Avenue (to the west of existing KSC at NW intersection of Ninth Ave and Mills on Scripps campus)	Claremont	70,000-square foot, three-story, semi detached ground up building for Keck Science Center labs and classrooms. Located on existing surface level parking lot. Connected to existing KSC.	NH/CV	Construction nearly complete occupancy anticipated for Spring 2024
6	Knight's Inn Redevelopment (formerly proposed as new Hampton Inn & Suites)	701 S Indian Hill Blvd	Claremont	Originally proposed to include renovation of the two-story, 65-unit motel and construction of a four-story, 121-unit hotel. Specific Plan has been adopted.	CV	Plans for new 120-room Residence Inn by Marriott approved March 2023. Final entitlements granted by AC 3/29/23. Demo of Knights Inn completed Dec 2023. Construction expected to begin in early 2024.
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8	Med Density Housing Per Gen Plan Housing Element Update.	Citywide	Claremont	1,711 New Housing Units Planned for through Oct 15, 2029		Final approval of Housing Element Update adopted in July 2023. Rezoning of housing element opportunity sites to follow in January and February 2022.
9	O'Son 56 Unit Townhomes	1030 W Foothill Blvd.	Claremont	56 Attached Townhomes with 12 Live work units 350 sf each work live		Entitlements approved in Sept and Oct 2023. Submittal of construction documents in early 2023. Construction anticipated to commence in 2023 and to be
10	Pomona College 2015 Master Plan	Campus-Wide	Claremont	Includes increase of 30 students, 60 staff and faculty, and 205,400 new square feet of campus	CV	No projects currently proposed.
11	Senior Low Income Housing	956 W. Base Line Road	Claremont	15 unit low income senior housing project	JD	Application submitted in Dec 2020. Project approved by AC Feb 2021. Project currently awaiting funding sources to proceed.

12	South Village Development Project	Indian Hill to Bucknell, Rail ROW to Arrow Highway.	Claremont	Mixed-Use, Transit-oriented Development designed to expand the Claremont Village. Project plans include: 610 Residential Apartments in Mixed-use buildings 103 Flat-style Residential condos 21 Townhome residences 34,000 sq.ft. restaurants 52,000 sq.ft. retail 26,000 sq.ft. office space 1,195 parking spaces in structures or garages.	CV	Preliminary review of Architecture reviewed by AC in 3 phases Dec 2021 - May 2022. Two Tentative Tract Maps currently being reviewed by City and LA Co Fire. (TTM83439 & TTM83463). Construction to begin late 2024 and end late 2029. Final VTTM and Entitlements completed Dec 2022 and Jan 2023. Project awaiting investor funding.
13	Trumark Homes	2323 Forbes Ave	Claremont	56 SFR detached Units with 6 internal ADUs	EN	Draft EIR complete April 2023. Construction commences Q4 2024
14	City Ventures Townhomes	840 S Indian Hill Blvd	Claremont	65 townhomes. Proposed total Net SF is 92,880-SF	NH	Preliminary plans submitted for 65-unit townhome development at tennis courts near NE intersection of Indian Hill Boulevard and American Avenue. 2.67-acre site. Site needs to be rezoned as Housing Element. Project requires Parcel Map, Tract Map and Architectural and Site Plan Approval. AC Preliminary review to take
15	Larkin Place - Jamboree Permanent Supportive	731 Harrison Ave	Claremont	33-unit permanent supportive housing development.	CV	Project entitled June 1, 2023. Building permits expected to be issued by Jan 2024.
16	TCCS Student Services Building	800 N Dartmouth Ave	Claremont	New Student Services Building for Claremont Colleges students. Located at Mudd Quadrangle on Dartmouth south of 10th Street. Approx 30,000-SF	NH	Preliminary plans submitted for new Student Services Building. Preliminary Architectural Commission review completed in Nov 2023. Approvals anticipated in Spring 2024.
17	Mercy Housing Affordable Housing	1364 N Towne Avenue	Claremont	74-unit 100% Affordable Housing Development (Veteran Housing)	BJ/NH	100% Affordable Housing Development to reviewed in streamlined process pursuant to SB 35. Currently in community outreach stage.
18	TTM62814	365 San Jose Ave	Claremont	13 new residential townhomes at 365 W. San Jose	LC/CV	AC approved final design on December 11, 2019. Plans submitted for plan check, approvable pending approval/recording of Inclusionary Housing Agreement. After period of downtime, building permit application resubmitted in spring 2023. Building permit plan check is
19	Wendy's Remodel	187 S. Mountain Avenue	Upland	Facade and interior remodel of existing Wendy's restaurant		-Entitlement application was approved on July 3, 2023 -Construction plans for interior and exterior remodel have been submitted and are under review
20	Quick Quak Car Wash	950 Monte Vista Avenue	Upland	2,596 square foot automated drive-thru car wash with ancillary vacuum stations		Entitlement application and associated technical studies are currently under review
21	Bridge Point Upland Project	NEC of Central/Foothill	Upland	A 201,096 square foot warehouse/parcel delivery service building		-Pending outcome of appeal in California Courts of appeal - Construction documents are currently under review
22	Lennar at the Enclave	W. Foothill Boulevard	Upland	Development of 192 residential units comprised of 116 detached condominium units and 76 attached condominium units on 15.6 acres		-Entitlement application were approved by the planning commission on February 24, 2021 -Project is under construction
23	Mixed Commercial/Industrial Development	1750-1780 W. Foothill Blvd	Upland	A 3,570 square foot retail building and four industrial condominium units within two multi-tenant industrial buildings 45,476 square feet and 55,616 square feet in size on 6.05 acres		Application is currently under review
24	T & T Industrial	1701 W. 11th Street	Upland	2 office and warehouse buildings totaling 56,000 square feet		Construction documents are approved
25	Yellow Iron	2068 W. 11th Street	Upland	5 building light industrial park totaling approximately 77,000 square feet, including a 6-lot subdivision.		-Entitlement application were approved by the planning commission on February 23, 2022 -Development is currently under construction

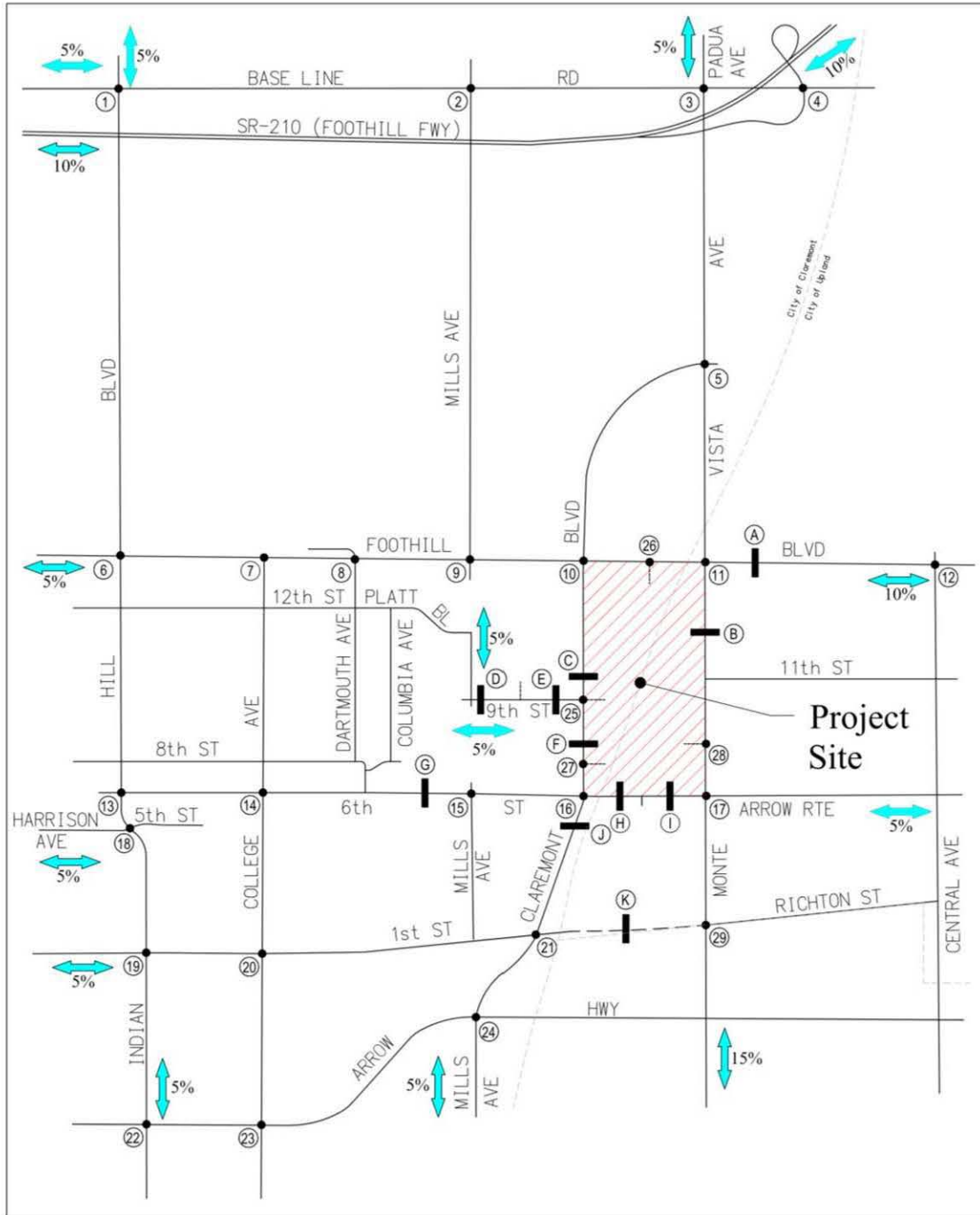
26	Rose Glen Specific Plan	1400 E. Arrow Hwy	Upland	64 two-story single family detached residential homes	-Entitlement applications were approved by the City council on October 10, 2022 -Construction plans are currently under review
27	Bullwinkle's Family Fun Center	1500 W. 7th Street	Upland	Remodel of existing amusement park, including facade, parking lot, and interior improvements.	-Entitlement application were approved by the planning commission on August 23, 2023 -Construction plans are currently under review
28	Citrus Village Senior Living	911 W. Arrow Highway	Upland	Potential senior housing development with 42 affordable housing units, 98 independent living units, 74 assisted living units, and a 30-bed facility for memory care residents.	A preliminary review application was submitted for feedback and guidance on January 19, 2023. Awaiting submittal formal entitlement applications
29	The Courtyard at Upland	1968 W. 7th Street	Upland	The partial reconstruction of 36 apartment units within an existing legally non-conforming multi-family apartment complex, damaged by fire	-Entitlement application were approved by the planning commission on May 24, 2023 -Construction plans are currently under review.
30	Huntington Drive Apartments	1910 Huntington Drive	Upland	An 84-unit, 3-story, multi-family residential apartment development on 1.38 acres. The developer proposes that 14 units are to be designated at the low-income affordability level	Applications are currently under review
31	Upland Reliability Project	1975 N. Benson Ave	Upland	Construction and operation of a new battery energy storage system facility. The project includes the placement of battery energy storage enclosures and associated electrical equipment on concrete foundations, including medium voltage transformers and power conversion system, on an area approximately 12 acres in size	Applications have been submitted and are currently under review
32	9th Street Apartments	1739 9th Street	Upland	A request to construct a 19-unit, 2-story apartment complex, with a density bonus, and 2 units made available at the low-income	Entitlement applications are under review
33	McDonalds	1590 W. Foothill Boulevard	Upland	Demolition of an existing 1,471 square foot McDonald's restaurant and construction of a new 4,266 square foot McDonald's restaurant with indoor dining and dual order point drive-through	-Entitlement application was approved by the planning commission on October 25, 2023 -Pending submittal of construction plans

ATTACHMENT A PROJECT SITE DIAGRAM (PLAN COMPARISON)



ATTACHMENT B

PROJECT STUDY AREA, INTERSECTIONS, ROADWAY, AND PROJECT TRIP DISTRIBUTION



ATTACHMENT C PROJECT TRIP GENERATION TABLE

Claremont McKenna College Robert Campus East																
Project Trip Generation																
Description	Unit	ITE Land Use Code*	Weekday									Weekend				
			Daily 2-way	AM Peak Hour			PM Peak Hour			Daily 2-way	AM Peak Hour			PM Peak Hour		
				Trip Rates			Trip Rates				Trip Rates			Trip Rates		
				Total	In	Out	Total	In	Out		Total	In	Out	Total	In	Out
Soccer Complex	Fields	488	71.33	0.99	1	0	16.43	11	5	109.17	37.48	18	19	37.48	6	31

*Source: Institute of Transportation Engineers Trip Generation, 11th Edition
 Estimated 15% Inbound, 85% Outbound for PM peak hour (Weekend)

Description	Qty	Daily 2-way	Weekday						Daily 2-way	Weekend						Notes					
			AM Peak Hour			PM Peak Hour				AM Peak Hour			PM Peak Hour								
			Total	In	Out	Total	In	Out		Total	In	Out	Total	In	Out						
<i>Weekday: Practice Day</i>																					
Multi-Purpose Field	1	71	1	1	0	16	11	5	Not Applicable	ITE Land use code 488: Soccer Complex, Weekday											
Baseball Field (Participants)	100	50	-	-	-	25	-	25		- Team size (including coaches): Baseball @100, Softball @100, Football (or Track and Field) @ 250;											
Softball Field (Participants)	100	50	-	-	-	25	-	25		- 50% walk-in, 50% Drive-in @ 2.0/car											
Football/Track and Field/Lacrosse (Participants)	250	126	-	-	-	63	-	63		- Team size (including coaches): Soccer/Rugby @ 100;											
Soccer/Rugby (Participants)	100	50	-	-	-	25	-	25		- 50% walk-in, 50% Drive-in @ 2.0/car											
Golf Practice (Participants)	25	12	-	-	-	6	-	6		- Team size (including coaches): Golf Practice @ 25;											
Weekday: Practice Day Total		359	1	1	0	160	11	149		- 50% walk-in, 50% Drive-in @ 2.0/car											
<i>Weekday: Game Day</i>																					
Multi-Purpose Field (Participants)	1	71	1	1	0	16	11	5	Not Applicable	ITE Land use code 488: Soccer Complex, Weekday											
Baseball (250 Spectators)	250	156	-	-	-	78	-	78		- 500 maximum weekday spectators for Baseball and/or Softball (could all be at one-field, or split among fields), 50% walk-in, 50% drive-in @ 2.5/car, 1 bus (40 passenger=2.5 PCE, Visiting team traffic = 2.5 cars)											
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Soccer/Rugby (Participants)	100	50	-	-	-	25	-	25		- Team size (including coaches): Soccer/Rugby @ 100;											
Weekday: Game Day Total		559	1	1	0	260	11	249		- 50% walk-in, 50% Drive-in @ 2.0/car											
<i>Weekend: Game Day (Fall)</i>																					
Multi-Purpose Field (Participants)	1	[1]	Not Applicable						109	37	18	19	37	6	31	ITE Land use code 488: Soccer Complex, Weekend					
Football (1,800 Spectators)	1800								610	240	240	-	370	-	370			- Weekend at full stadium capacity (1,800 seats), 50% walk-in, 50% drive-in @ 3.0/car, 80% arrive in hour before, 20% arrive 1-2 hours before, 100% depart the end of game, 1 bus (40 passenger=2.5 PCE, Visiting team traffic = 3*2.5=7.5 cars)			
Soccer/Rugby (Spectators)	500								228	100	100	-	128	-	128			- 500 weekend spectators/field, 50% walk-in, 50% drive-in @ 2.5/car, 1 bus (40 passenger=2.5 PCE, Visiting team traffic = 2.5 cars)			
Weekend: Game Day (Fall) Total								947	377	358	19	535	6	529							
<i>Weekend: Game Day (Spring)</i>																					
Multi-Purpose Field (Participants)	1	[2]	Not Applicable						109	37	18	19	37	6	31	ITE Land use code 488: Soccer Complex, Weekend					
Baseball (250 Spectators)	250								128	50	50	-	78	-	78			- 500 weekend spectators/field, 50% walk-in, 50% drive-in @ 2.5/car, 1 bus (40 passenger=2.5 PCE) Visiting team traffic = 2.5 cars			
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Rugby Field (500 spectators x 1 Field)	500								228	100	100	-	128	-	128			- 500 weekend spectators/field, 50% walk-in, 50% drive-in @ 2.5/car, 1 bus (40 passenger=2.5 PCE) Visiting team traffic = 2.5 cars			
Weekend: Game Day (Spring) Total															593			237	218	19	321

[1] Based on maximum spectator occupancy of 1,800 seats
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Cumulative Development Projects List						
No.	Project Name or Firm	Address	City	Description	City Project Planner	Project Status
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16	TCCS Student Services Building	800 N Dartmouth Ave	Claremont	New Student Services Building for Claremont Colleges students. Located at Mudd Quadrangle on Dartmouth south of 10th Street. Approx 30,000-SF	NH	Preliminary plans submitted for new Student Services Building. Preliminary Architectural Commission review completed in Nov 2023. Approvals anticipated in Spring 2024.
17	Mercy Housing Affordable Housing	1364 N Towne Avenue	Claremont	74-unit 100% Affordable Housing Development (Veteran Housing)	BJ/NH	100% Affordable Housing Development to reviewed in streamlined process pursuant to SB 35. Currently in community outreach stage.
18	TTM62814	365 San Jose Ave	Claremont	13 new residential townhomes at 365 W. San Jose	LC/CV	AC approved final design on December 11, 2019. Plans submitted for plan check, approvable pending approval/recording of Inclusionary Housing Agreement. After period of downtime, building permit application resubmitted in spring 2023. Building permit plan check is
19	Wendy's Remodel	187 S. Mountain Avenue	Upland	Façade and interior remodel of existing Wendy's restaurant		-Entitlement application was approved on July 3, 2023 -Construction plans for interior and exterior remodel have been submitted and are under review
20	Quick Quak Car Wash	950 Monte Vista Avenue	Upland	2,596 square foot automated drive-thru car wash with ancillary vacuum stations		Entitlement application and associated technical studies are currently under review
21	Bridge Point Upland Project	NEC of Central/Foothill	Upland	A 201,096 square foot warehouse/parcel delivery service building		-Pending outcome of appeal in California Courts of appeal - Construction documents are currently under review
22	Lennar at the Enclave	W. Foothill Boulevard	Upland	Development of 192 residential units comprised of 116 detached condominium units and 76 attached condominium units on 15.6 acres.		-Entitlement application were approved by the planning commission on February 24, 2021 -Project is under construction
23	Mixed Commercial/Industrial Development	1750-1780 W. Foothill Blvd	Upland	A 3,570 square foot retail building and four industrial condominium units within two multi-tenant industrial buildings 45,476 square feet and 55,616 square feet in size on 6.05 acres.		Application is currently under review
24	T & T Industrial	1701 W. 11th Street	Upland	2 office and warehouse buildings totaling 56,000 square feet		Construction documents are approved
25	Yellow Iron	2068 W. 11th Street	Upland	5 building light industrial park totaling approximately 77,000 square feet, including a 6-lot subdivision		-Entitlement application were approved by the planning commission on February 23, 2022 -Development is currently under construction

26	Rose Glen Specific Plan	1400 E. Arrow Hwy	Upland	64 two-story single family detached residential homes		-Entitlement applications were approved by the City council on October 10, 2022 -Construction plans are currently under review
27	Bullwinkle's Family Fun Center	1500 W. 7th Street	Upland	Remodel of existing amusement park, including façade, parking lot, and interior improvements.		-Entitlement application were approved by the planning commission on August 23, 2023 -Construction plans are currently under review
28	Citrus Village Senior Living	911 W. Arrow Highway	Upland	Potential senior housing development with 62 affordable housing units, 98 independent living units, 74 assisted living units, and a 30-bed facility for memory care residents.		A preliminary review application was submitted for feedback and guidance on January 19, 2023. Awaiting submittal formal entitlement applications.
29	The Courtyard at Upland (Phase 2)	968 W. 7th Street	Upland	The partial reconstruction of 36 apartment units within an existing legally non-conforming multi-family apartment complex, damaged by fire		-Entitlement application were approved by the planning commission on May 24, 2023 -Construction plans are currently under review.
30	Huntington Drive Apartments	1910 Huntington Drive	Upland	An 84-units, 3-story, multi-family residential apartment development on 1.38 acres. The developer proposes that 14 units are to be designated at the low-income affordability level		Applications are currently under review
31	Upland Reliability Project	1975 N. Benson Ave	Upland	Construction and operation of a new battery energy storage system facility. The project includes the placement of battery energy storage enclosures and associated electrical equipment on concrete foundations, including medium voltage transformers and power conversation system, on an area approximately 12 acres in size		Applications have been submitted and are currently under review
32	9th Street Apartments	1739 9th Street	Upland	A request to construct a 19-unit, 2-story apartment complex, with a density bonus, and 2 units made available at the low-income		Entitlement applications are under review
33	McDonalds	1590 W. Foothill Boulevard	Upland	Demolition of an existing 1,471 square foot McDonald's restaurant and construction of a new 4,266 square foot McDonald's restaurant with indoor dining and dual order point drive-through		-Entitlement application was approved by the planning commission on October 25, 2023 -Pending submittal of construction plans

TRAFFIC ANALYSIS - MEMORANDUM OF UNDERSTANDING (MOU)
Revised February 14, 2024

This MOU acknowledges that the traffic analysis for the following project will be prepared in accordance with the latest traffic study policies and guidelines of the Cities of Claremont and Upland. There will be one traffic study for the entire Project which will cover both jurisdictions.

A. Project Information:

Project Name: Claremont-McKenna College Roberts Campus East (East Campus Update): Traffic Impact Study and VMT Analysis

Project Address: NE Corner of W Arrow Route and Claremont Boulevard

Project Description: Claremont McKenna College plans to modify and refine the site plan and entitlements for the Roberts Campus East, which is an existing inert debris landfill. The site has existing entitlements approved by the cities of Upland and Claremont in 2016. The proposed modification will include fields for baseball, softball, soccer, three multi-purpose fields, football/track, and golf practice, all to be used solely by CMC and it does not propose changes in the type of use or increase the intensity or density. The City of Upland served as the lead agency in 2016 and will continue to do so for this Project. CMC proposes two alternative site plans (Scenario 2 and Scenario 2B), each of which are provided in Attachment A. Each alternative site plan contains the same uses and programming, but the layout and vehicular access and circulation differ among the three scenarios.

B. Geographic Distribution: N 25 % S 25 % E 15 % W 35 %

Attachment B provides a graphic illustrating the overall project trip distribution. Trip distribution is similar across the two scenarios.

Trip Generation Rate(s): Soccer Complex (Land Use Code #488, ITE 11th Edition), Multi-Purpose Fields, Baseball Field, Softball Field, Football/Track & Field/Lacrosse, and Rugby/Soccer. The College provides the spectator and participant numbers, which are utilized to identify the number of trips. The trip generation table in Attachment C provides a description of the proposed land uses, ITE rates, estimated morning, and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. The project trip generation is summarized in the table below:

Day	Activity	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Weekday	Practice Day	1	0	1	11	149	160
	Game Day	1	0	1	11	249	260
Weekend	Game Day (Fall)	358	19	377	6	529	535
	Game Day (Spring)	218	19	237	6	315	321

C. Analysis Scenarios:

- Existing Year (2023) Conditions
- Opening Year (2027) Conditions
 - Opening Year Without Project Conditions
 - Opening Year Plus Project Conditions
- Future/Horizon Year (2045) Conditions
 - Future/Horizon Year Without Project Conditions
 - Future/Horizon Year Plus Project Conditions

Related Projects List attached?

No Yes

[See attachment]

Capacity Analysis Methodologies: Signalized and unsignalized intersections will be analyzed using the latest HCM operational analysis methodologies and present the analysis results in Level-of-Service (LOS) and Delay, as per the City of Upland's *Traffic Impact Analysis Guidelines* (July 2020).

Study Intersections:

Study Intersection ID, Location and Jurisdiction*					
1.) Base Line Rd. & Indian Hill Blvd.	C	11.) Foothill Blvd. & Monte Vista Ave.	U	21.) 1st St./Huntington Dr. & Claremont Blvd.	C
2.) Base Line Rd. & Mills Ave	C	12.) Foothill Blvd. & Central Ave.	U	22.) Arrow Hwy. & Indian Hill Blvd.	C
3.) Base Line Rd. & Monte Vista Ave./Padua Ave.	C	13.) 8th St. & Indian Hill Blvd.	C	23.) Arrow Hwy. & College Ave.	C
4.) Base Line Rd. & I-210 Ramps	C	14.) 8th St. & College Ave.	C	24.) Arrow Hwy. & Claremont Blvd./Mills Ave.	C
5.) Claremont Blvd. & Monte Vista Ave	C	15.) 8th St. & Mills Ave.	C	25.) Claremont Blvd. & 9th St.	C
6.) Foothill Blvd. & Indian Hill Blvd.	C	16.) 8th St./Arrow Rte. & Claremont Blvd.	U	26.) Foothill Blvd. & Project Dwy. N	C
7.) Foothill Blvd. & College Ave	C	17.) Arrow Rte. & Monte Vista Ave.	U	27.) Claremont Blvd. & Project Dwy. SW	C
8.) Foothill Blvd. & Dartmouth Ave.	C	18.) Harrison Ave./5th St. & Indian Hill Blvd.	C	28.) Monte Vista Ave. & Project Dwy. SE	U
9.) Foothill Blvd. & Mills Ave.	C	19.) 1st St. & Indian Hill Blvd.	C	29.) Monte Vista Ave. & 1st St./Richton St. (Ex. three-way & Future four-way intersection)	U
10.) Foothill Blvd. & Claremont Blvd.	C	20.) 1st St. & College Ave.	C		

* C = City of Claremont; U = City of Upland
 Highlighted Roadway segments are located within the jurisdiction of the City of Upland

Study Roadways:

Study Roadway Segment ID, Location and Local Jurisdiction*					
A.) Foothill Boulevard east of Monte Vista Avenue	U	E.) 9th Street west of Claremont Boulevard	C	I.) Arrow Route between College Park Dr. & Monte Vista Ave.	U
B.) Monte Vista Ave between Foothill Boulevard & 11th Street	U	F.) Claremont Boulevard between 9th Street & 6th St/Arrow Rt.	C	J.) Claremont Boulevard south of 6th Street / Arrow Route	C
C.) Claremont Boulevard between Foothill Boulevard & 9th Street	C	G.) 6th Street west of Mills Avenue	C	K.) 1st Street between Claremont Blvd. & Monte Vista Ave. (future segment)	U
D.) 9th Street east of Mills Avenue	C	H.) Arrow Route between Claremont Bl. & College Park Dr.	U		

* C = City of Claremont; U = City of Upland
 Highlighted Roadway segments are located within the jurisdiction of the City of Upland

	Yes	No
Transit Usage		X
Transportation Demand Management		X
Existing Active Land Use		X ¹
Previous Land Use		X

¹ Existing site is currently vacant land. All proposed athletics facilities, fields, and programs, however, are existing and will be relocated from the adjacent CMC Campus (located just to the west of Claremont Blvd.) to the subject project site.

Additional Sections: Other project-related analyses will be provided in the traffic study, such as event traffic control, ingress, egress, accessibility, public and emergency access, and on-site parking.

D. Vehicle Miles Travelled (VMT) Assessment

As outlined in the City’s guidelines, a VMT screening will be conducted to determine whether the project will need to provide further detailed VMT analyses.

VMT Screening Analysis – KOA will prepare a VMT screening assessment for the project based on both the City of Claremont’s *Transportation Study Guidelines* and the City of Upland’s *Traffic Impact Analysis Guidelines*. Current VMT guidelines allow for projects that are local-serving in nature and presumed to have a less-than-significant VMT impact, including, without limitation, local-serving parks, community colleges, and university student housing projects. While the proposed project does not explicitly match any of the above-listed project types, the proposed project uses are:

- 1) Currently existing and do not include any expanded programs; and
- 2) Can be considered as local serving, as they will primarily cater to the students and faculty of Claremont McKenna College and potentially Pitzer College.

As most of the proposed project facilities will serve as relocations from the existing campus, and all facilities will accommodate uses that currently exist on the campus, the Project will likely generate a relatively low number of “new” trips. KOA will prepare a technical memorandum providing a qualitative screening analysis discussing the local-serving nature of the project uses, and the application of the presumed less-than-significant VMT impact.

Quantitative VMT Analysis – Notwithstanding the findings and conclusions of the VMT screening analysis described above, KOA proposes to conduct a quantitative VMT analysis for the proposed project. Most of the facilities proposed as part of the project may be considered local serving uses in accordance with each agency’s adopted VMT guidelines as discussed above. However, as a conservative measure, KOA will also prepare a quantitative VMT analysis for the project. This analysis will include the calculation of the VMT per service population (students, faculty, spectators, etc.) metric for the project, as well as the calculation of the cumulative link-level boundary Citywide VMT per service population under Without Project and Plus Project conditions. The SGVCOG VMT Evaluation Tool and SBCTA VMT Screening Tool will be used for the Project’s VMT screening evaluation and the quantitative VMT analysis.

E. Traffic Data

KOA has collected traffic volume counts for the majority of the locations identified in Section C, above. New traffic counts will be collected for the additional locations requested by the Cities of Claremont and Upland, based on recent correspondence. In order to provide a consistent and correlative traffic engineering/planning study effort, it is assumed that no further traffic count locations will be added to this scope. Any potential additional study locations shall require collaborative discussion with the Project Team and Agency(ies).

F. Signature

Consultant

Name: Greg Garces, KOA | Lochner
Address: 333 S. Anita Drive, Suite 800
Orange, CA 92868
Phone: (714) 573-0317
E-Mail: ggarces@hwlochner.com

Lead Agency

Approved by:

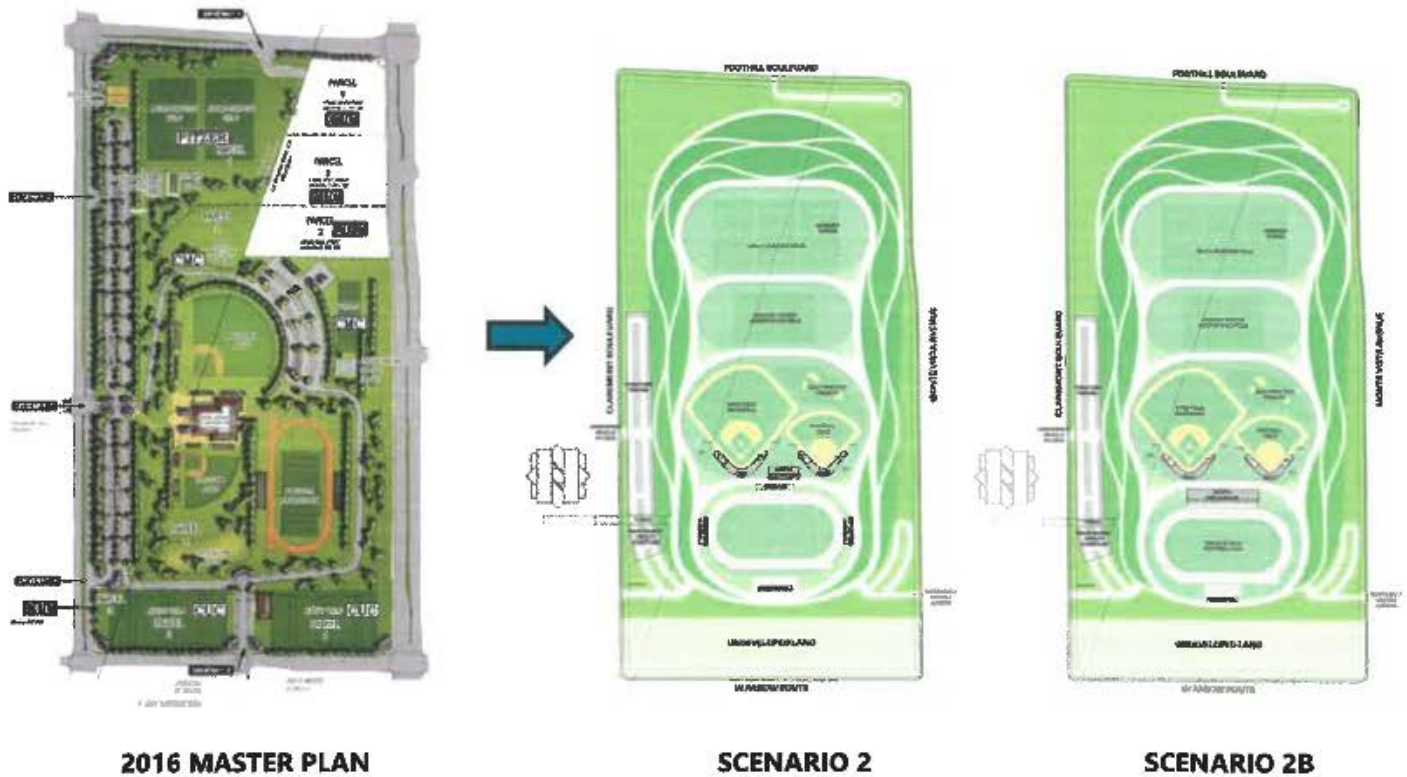


Consultant's Representative Date 2/14/24



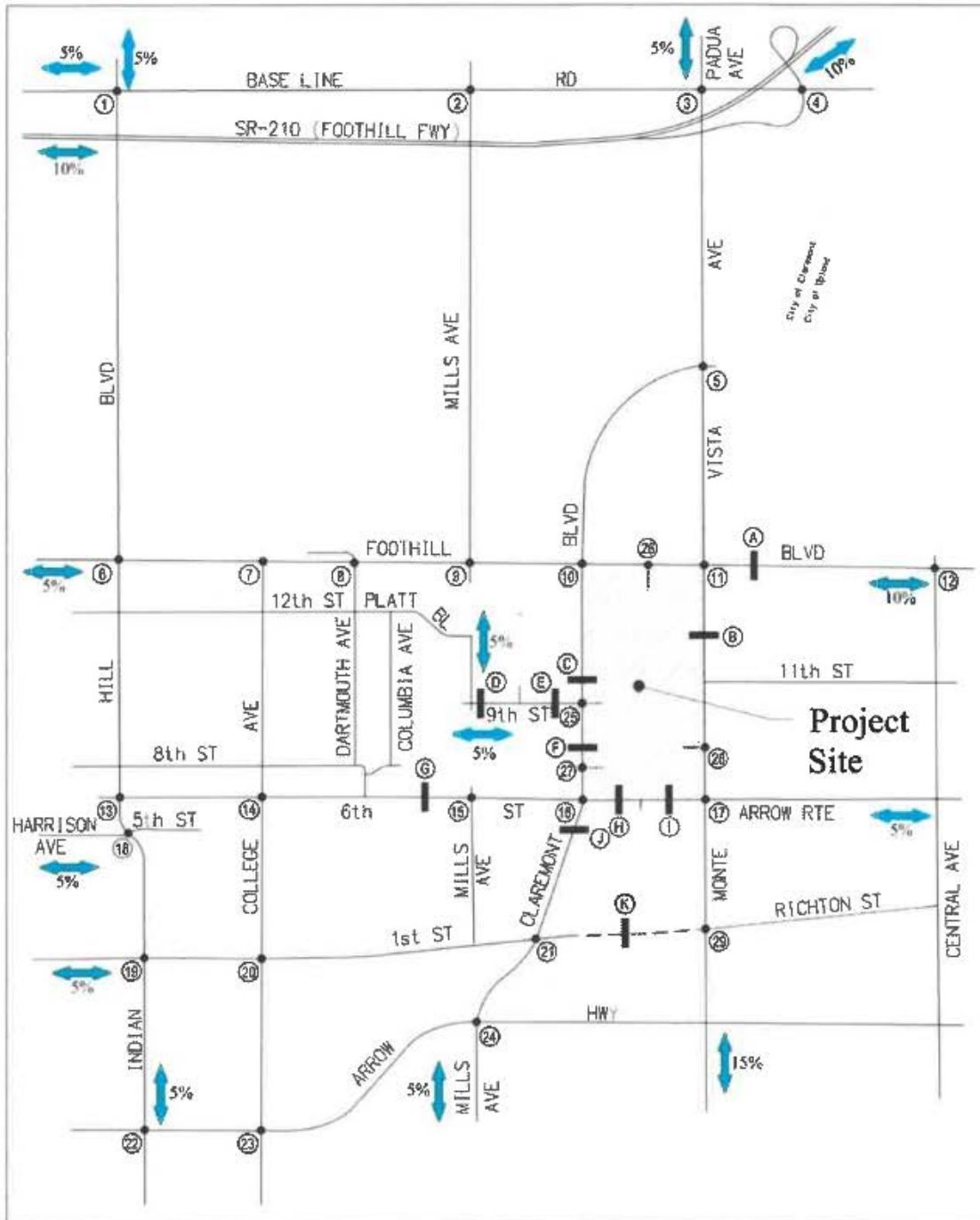
City of Upland Representative Date

ATTACHMENT A PROJECT SITE DIAGRAM (PLAN COMPARISON)



ATTACHMENT B

PROJECT STUDY AREA, INTERSECTIONS, ROADWAY, AND PROJECT TRIP DISTRIBUTION





ATTACHMENT C
PROJECT TRIP GENERATION TABLE

Claremont McKenna College Robert Campus East																
Project Trip Generation																
Description	Unit	ITE Land Use Code ^a	Daily 2-way	Weekday						Weekend						
				AM Peak Hour Trip Rates			PM Peak Hour Trip Rates			Daily 2-way	AM Peak Hour Trip Rates			PM Peak Hour Trip Rates		
				Total	In	Out	Total	In	Out		Total	In	Out	Total	In	Out
Soccer Complex	Fields	488	71.33	0.99	1	0	16.43	11	5	109.17	37.48	18	19	37.48	6	31

^aSource: Institute of Transportation Engineers Trip Generation, 11th Edition
 Estimated 15% Inbound, 85% Outbound for PM peak hour (Weekend)

Description	Qty	Daily 2-way	Weekday						Weekend						Notes	
			AM Peak Hour			PM Peak Hour			Daily 2-way	AM Peak Hour			PM Peak Hour			
			Total	In	Out	Total	In	Out		Total	In	Out	Total	In		Out
Weekday Practice Day																
Multi-Purpose Field	1	71	1	1	0	16	11	5	Net Applicable	ITE Land use code 488, Soccer Complex, Weekday						
Soccer Field (Participants)	100	50	-	-	-	25	-	25		- Team size (including coaches) Soccer @ 100, 50% walk-in @ 100, 50% walk-in @ 20/Car						
Soccer Field (Spectators)	100	50	-	-	-	25	-	25		- Team size (including coaches) Soccer @ 100, 50% walk-in @ 20/Car						
Soccer Field (Spectators)	250	125	-	-	-	63	-	63		- Team size (including coaches) Soccer @ 100, 50% walk-in @ 20/Car						
Soccer Field (Spectators)	100	50	-	-	-	25	-	25		- Team size (including coaches) Soccer @ 100, 50% walk-in @ 20/Car						
Golf Practice (Participants)	25	12	-	-	-	6	-	6		- Team size (including coaches) Golf @ 25, 50% walk-in @ 20/Car						
Weekday Practice Day Total	559	279	1	1	0	148	11	149								
Weekend Game Day																
Multi-Purpose Field (Participants)	1	71	1	1	0	16	11	5	Net Applicable	ITE Land use code 488, Soccer Complex, Weekend						
Soccer Field (Spectators)	250	125	-	-	-	63	-	63		- 500 weekend spectators @ 250, 50% walk-in @ 20/Car (total all in one field, or split among fields, 50% walk-in, 50% drive-in @ 20/Car - 1 bus (40 passenger) = 2.5 PCE, visiting team traffic = 2.5 cars)						
Soccer Field (Spectators)	250	125	-	-	-	63	-	63		- 500 weekend spectators @ 250, 50% walk-in @ 20/Car						
Soccer Field (Spectators)	250	125	-	-	-	63	-	63		- 500 weekend spectators @ 250, 50% walk-in @ 20/Car						
Soccer Field (Spectators)	100	50	-	-	-	25	-	25		- 500 weekend spectators @ 100, 50% walk-in @ 20/Car						
Weekend Game Day Total	559	279	1	1	0	148	11	149								
Weekend Game Day (Bus)																
Multi-Purpose Field (Participants)	1								Net Applicable	ITE Land use code 488, Soccer Complex, Weekend						
Soccer Field (Spectators)	1,800									- 500 weekend spectators @ full stadium capacity (1,800 seats), 50% walk-in, 50% drive-in @ 2.5 PCE, 50% arrive in 1.5 hours, 50% arrive 1-2 hours before, 100% depart the end of game, 1 bus (40 passenger) = 2.5 PCE, visiting team traffic = 2.5 cars						
Soccer Field (Spectators)	800									- 500 weekend spectators @ 800 seats, 50% walk-in, 50% drive-in @ 2.5 PCE, 1 bus (40 passenger) = 2.5 PCE, visiting team traffic = 2.5 cars						
Weekend Game Day (Bus) Total																
Weekend Game Day (Total)																
Weekend Game Day (Spectators)																
Weekend Game Day (Spectators)																
Multi-Purpose Field (Participants)	1								Net Applicable	ITE Land use code 488, Soccer Complex, Weekend						
Soccer Field (Spectators)	250									- 500 weekend spectators @ 250 seats, 50% walk-in, 50% drive-in @ 2.5 PCE, 1 bus (40 passenger) = 2.5 PCE, visiting team traffic = 2.5 cars						
Soccer Field (Spectators)	250									- 500 weekend spectators @ 250 seats, 50% walk-in, 50% drive-in @ 2.5 PCE, 1 bus (40 passenger) = 2.5 PCE, visiting team traffic = 2.5 cars						
Soccer Field (Spectators)	250									- 500 weekend spectators @ 250 seats, 50% walk-in, 50% drive-in @ 2.5 PCE, 1 bus (40 passenger) = 2.5 PCE, visiting team traffic = 2.5 cars						
Soccer Field (Spectators)	100									- 500 weekend spectators @ 100 seats, 50% walk-in, 50% drive-in @ 2.5 PCE, 1 bus (40 passenger) = 2.5 PCE, visiting team traffic = 2.5 cars						
Weekend Game Day (Spectators) Total																

1) Based on maximum spectator occupancy of 1,800 seats
 2) Based on maximum spectator occupancy of 250 seats per field

Cumulative Development Project List						
#	Project Name or Form	Address	City	Description	City Planning	Project Status
1	Arbor Pointe SFRs	210 @ Monte Vista (SWC)	Claremont	Tentative Tract Map and Design Review for 13 lot subdivision consisting of 13 SFRs, 13 JADUs, and 11 detached ADUs.	CP	No activity since July 2022. Project inquiry email sent 1/3/23.
2	CGU Master Plan	Generally bounded by Foothill Blvd., Dartmouth Avenue, Seventh Street, and College Avenue	Claremont	Potential addition of up to 475 regularly enrolled students, and 99 faculty and staff, and expansion, remodeling, and replacement of campus facilities, resulting in a potential increase in building area of approximately 170,000 assignable square feet.	JD	No activity on this project since early 2017.
3	Doubletree Hotel/Old School House Specific Plan	North of Foothill Blvd. and west of Indian Hill Blvd.	Claremont	126-unit residential condominiums/townhomes (30 in building with new 240-space parking structure and 96 on Colby Circle)	CV/NH	30 units and parking structure completed March 2023. Substantial progress on 96 units currently under construction with all slated for completion over next 4-6 months.
4	Harvey Mudd College 2015 Master Plan Amendment	South of E. Foothill Blvd. and north of Plant Blvd. between N. Dartmouth Avenue and N. Claremont Blvd.	Claremont	Proposed HMC 2015 Master Plan Amendment includes increasing current building floor area from 738,079 GSF to 962,411 903,911 GSF, and increasing HMC enrollment entitlement from 800 students to 900 students.	CV	70,000 square foot academic building (Shanahan Learning Center) completed and occupied Sept. 2013 (net 50K) 48,550 sq.ft. dormitory (Drinkwater Dormitory) Completed 2015. 33,000 square foot academic building (McGregor Computer Science) completed and occupied Mar 2021. Approx 35,000 square feet remaining in plan for future academic building to be constructed at SEC of Dartmouth.
5	Keck Science Center Expansion	925 N Mills Avenue (to the west of existing KSC at NW intersection of Ninth Ave and Mills on Scripps campus)	Claremont	70,000-square foot, three-story, semi-detached ground up building for Keck Science Center labs and classrooms. Located on existing surface level parking lot. Connected to existing KSC.	NH/CV	Construction nearly complete occupancy anticipated for Spring 2024.
6	Knights Inn Redevelopment (formerly proposed as new Hampton Inn & Suites)	701 S Indian Hill Blvd	Claremont	Originally proposed to include renovation of the two-story, 65-unit motel and construction of a four-story, 121-unit hotel. Specific Plan has been adopted.	CV	Plans for new 120-room Residence Inn by Marriott approved March 2023. Final entitlements granted by AC 3/25/23. Demo of Knights Inn completed Dec 2023. Construction expected to begin in early 2024.
7	La Popolar Restaurant & Dreamer Lofts	295 N Yale Ave	Claremont	New 3,000-SF restaurant with 850-SF new outdoor dining area. The Mexican restaurant would occupy the former Rhino Records space. 1,660 s.f. Coffee Shop to occupy rear ground floor tenant space. 5 new studio apts to be constructed through conversion of existing mezzanine and two new stories above rear tenant space. Total	NH	CUP for restaurant with alcohol approved in Sept 2022. Design Review approved in November 2022. Construction commenced March 2023. Restaurant completed and opened October 23, 2023.
8	Med Density Housing Per Gen Plan Housing Element Update.	Citywide	Claremont	1,711 New Housing Units Planned for through Oct 15, 2022		Final approval of Housing Element Update adopted in July 2023. Rezoning of housing element opportunity sites to follow in January and February 2022.
9	Otson 56 Unit Townhomes	1030 W Foothill Blvd.	Claremont	56 Attached Townhomes with 12 Live work units 350 sf each work live		Entitlements approved in Sept and Oct 2023. Submittal of construction documents in early 2023. Construction anticipated to commence in 2023 and to be
10	Pomona College 2015 Master Plan	Campus-Wide	Claremont	Includes increase of 50 students, 60 staff and faculty, and 206,400 new square feet of campus	CV	No projects currently proposed.
11	Senior Low Income Housing	956 W. Base Line Road	Claremont	15 unit low income senior housing project	JD	Application submitted in Dec 2020. Project approved by AC Feb 2021. Project currently awaiting funding sources to proceed.

12	South Village Development Project	Indian Hill to Bucknell, Rail ROW to Arrow Highway.	Claremont	Mixed-Use, Transit-oriented Development designed to expand the Claremont Village. Project plans include: 610 Residential Apartments in Mixed-use buildings 103 Flat-style Residential condos 21 Townhome residences 34,000 sq ft restaurants 52,000 sq ft retail 26,000 sq ft office space 1,155 parking spaces in structures or garages.	CV	Preliminary review of Architecture reviewed by AC in 5 phases Dec 2021 - May 2022. Two Tentative Tract Maps currently being reviewed by City and LA Co Pte. (TTM/83439 & TTM/83463). Construction to begin late 2024 and end late 2025. Final VTTM and Entitlements completed Dec 2022 and Jan 2023. Project awaiting investor funding.
13	TruMark Homes	2323 Forbes Ave	Claremont	56 SFR detached Units with 6 internal ADUs	EN	Draft EIR complete April 2023. Construction commences Q4 2024
14	City Ventures Townhomes	840 S Indian Hill Blvd	Claremont	65 townhomes. Proposed total Net SF is 92,880-SF	NH	Preliminary plans submitted for 65-unit townhome development at Merri's courts near NE Intersection of Indian Hill Boulevard and American Avenue. 2.67-acre site. Site needs to be rezoned as Housing Element. Project requires Parcel Map, Tract Map and Architectural and Site Plan Approval. AC Preliminary review to take
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22	Lensar at the Enclave	W. Foothill Boulevard	Upland	Development of 192 residential units comprised of 115 detached condominium units and 76 attached condominium units on 15.5 acres.		-Entitlement application were approved by the planning commission on February 24, 2021 -Project is under construction.
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26	Rosa Glen Specific Plan	1400 E. Arrow Hwy	Upland	54 two-story single family detached residential homes		Entitlement applications were approved by the City Council on October 13, 2022 -Construction plans are currently under review
27	Bullwinkle's Family Fun Co	1500 W. 7th Street	Upland	Remodel of existing amusement park, including fence, parking lot, and interior improvements.		-Entitlement application were approved by the planning commission on August 23, 2022 -Construction plans are currently under review
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31	Upland Reliability Project	1975 N. Benson Ave	Upland	Construction and operation of a new battery energy storage system facility. The project includes the placement of battery energy storage enclosures and associated electrical equipment on concrete foundations, including medium voltage transformers and power conversion system, on an area approximately 12 acres in size		Applications have been submitted and are currently under review
32	5th Street Apartments	1739 9th Street	Upland	A request to construct a 19-unit, 2-story apartment complex, with a density bonus, and 2 units made available at the low-income		Entitlement applications are under review
33	McDonald's	1580 W. Foothill Boulevard	Upland	Demolition of an existing 1,471 square foot McDonald's restaurant and construction of a new 4,266 square foot McDonald's restaurant with indoor dining and dual order point drive-through		Entitlement application was approved by the planning commission on October 25, 2022 -Pending submittal of construction plans

To: City of Claremont, City of Upland
From: Greg Garces, Project Manager – KOA, A Lochner Company
Date: June 11, 2024
Subject: Queuing Analysis for Claremont McKenna College Roberts Campus Sports Bowl/Roberts Campus East: Base Line Road at SR-210 (Caltrans intersection), and at Project driveways

INTRODUCTION

The following technical memorandum has been prepared to document the queuing analysis conducted for the Claremont-McKenna College Roberts Campus Sports Bowl/Roberts Campus East Project. Peak hour vehicle queuing was analyzed for the signalized Caltrans intersection of Base Line Road at the SR-210 On/Off-Ramps, as well as for the proposed Project driveways along the perimeter of the project site. Intersection queuing was evaluated using Synchro and SimTraffic (version 11) traffic modeling and simulation software. The 95th percentile queues under the “With Project” condition were compared with the available storage for each respective movement to evaluate if the provided lane storage will be adequate.

CALTRANS INTERSECTION: BASE LINE ROAD AT SR-210 RAMP QUEUING ANALYSIS

Opening Year (2027) With Project Vehicle Queuing Analysis

A queuing analysis was conducted for the study intersection at Base Line Road and the SR-210 East/West Ramps, to determine if traffic queues generated on the off-ramps during the peak hour period would exceed the available capacity in the Project’s Opening Year (OY 2027). The intersection was modeled in Synchro, using the existing lane geometrics and OY 2027 With Project traffic volumes (which considers baseline existing traffic, ambient growth to the Year 2027, related/cumulative project traffic, plus site traffic derived from the Roberts Campus Sports Bowl project). The 95th percentile queue, which represents the maximum back of the queue with 95th percentile traffic volumes during the peak hour, was evaluated for the purposes of determining the necessary traffic lane storage lengths. The 95th percentile queue is based on statistical calculations and was verified in the SimTraffic analysis. The results of the queuing analysis were used to confirm the storage capacity and adequacy of the existing off-ramp lanes.

The vehicle queuing analysis was conducted for the four different scenarios: Practice Day (Weekday), Game Day (Weekday), Game Day [Fall] (Weekend), and Game Day [Spring] (Weekend). The northbound and southbound turn pocket are summarized in **Table 1**. Based on the findings of the Synchro/Sim Traffic analysis, the average and 95th percentile queues for the SR-210 off-ramp at Base Line Road would be shorter than the lengths of the available vehicle storage capacities, and no spillback of off-ramp traffic would occur upstream onto the freeway mainline. **Figure 1** illustrates the results of the queuing analysis during the Opening Year 2027 With Project conditions.

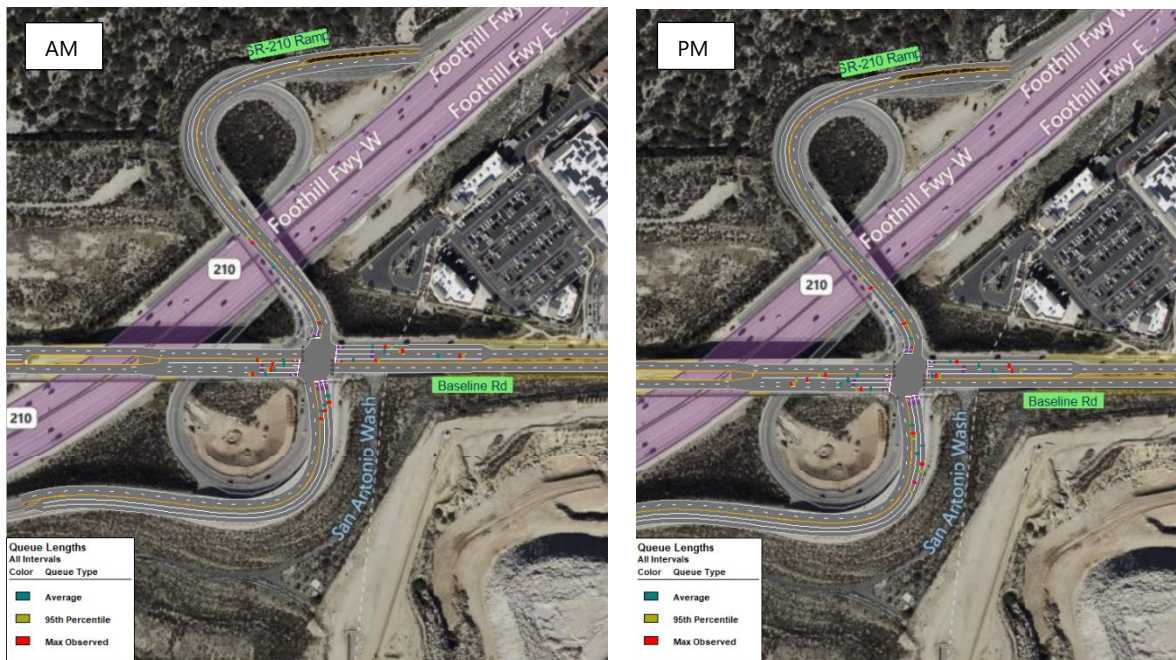
Detailed vehicle queuing analysis worksheets are provided in **Appendix A**.

TABLE 1 QUEUING ANALYSIS – OPENING YEAR 2027 WITH PROJECT

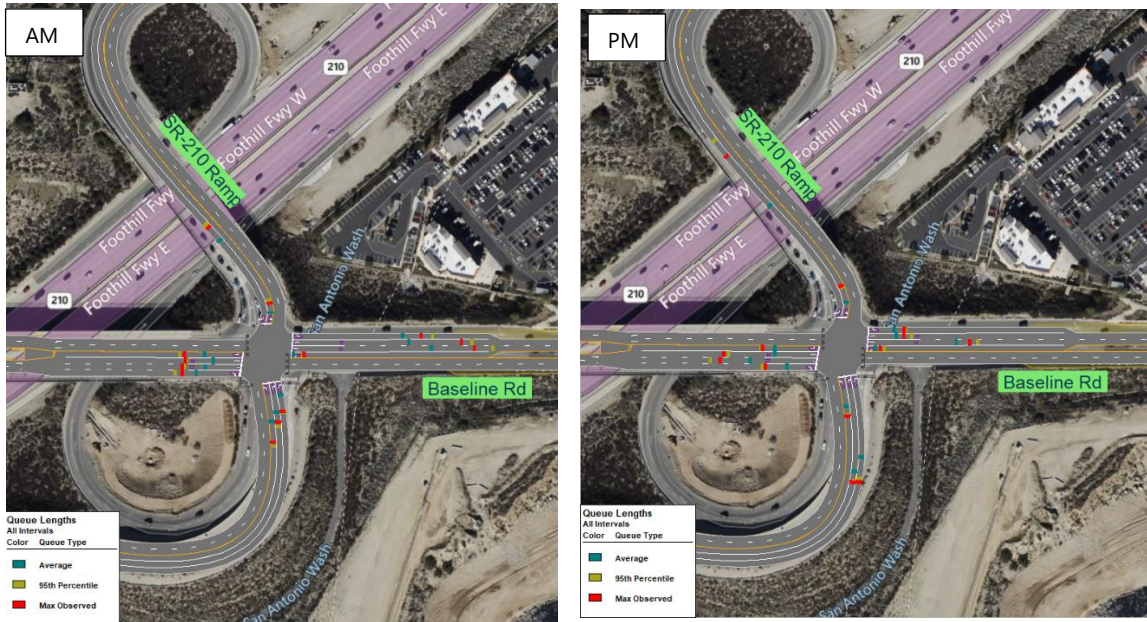
Opening Year With Project – 95 th Percentile Queue (ft)									
Direction	Storage length (ft)	Practice Day		Game Day		Game Day [Fall]		Game Day [Spring]	
		AM	PM	AM	PM	AM	PM	AM	PM
NBL	1,365	104	110	121	70	164	164	170	133
NBR	1,890	59	190	56	191	151	150	49	189
SBL	1,600	45	80	47	61	125	80	88	98
SBR	1,600	330	245	238	429	216	169	206	168
Opening Year With Project – Average Queue (ft)									
NBL	1,365	72	72	70	54	101	110	116	91
NBR	1,890	39	130	26	156	79	74	35	104
SBL	1,600	37	39	19	29	62	35	46	51
SBR	1,600	230	129	197	270	151	113	134	106

FIGURE 1 QUEUING ANALYSIS – OPENING YEAR 2027 WITH PROJECT

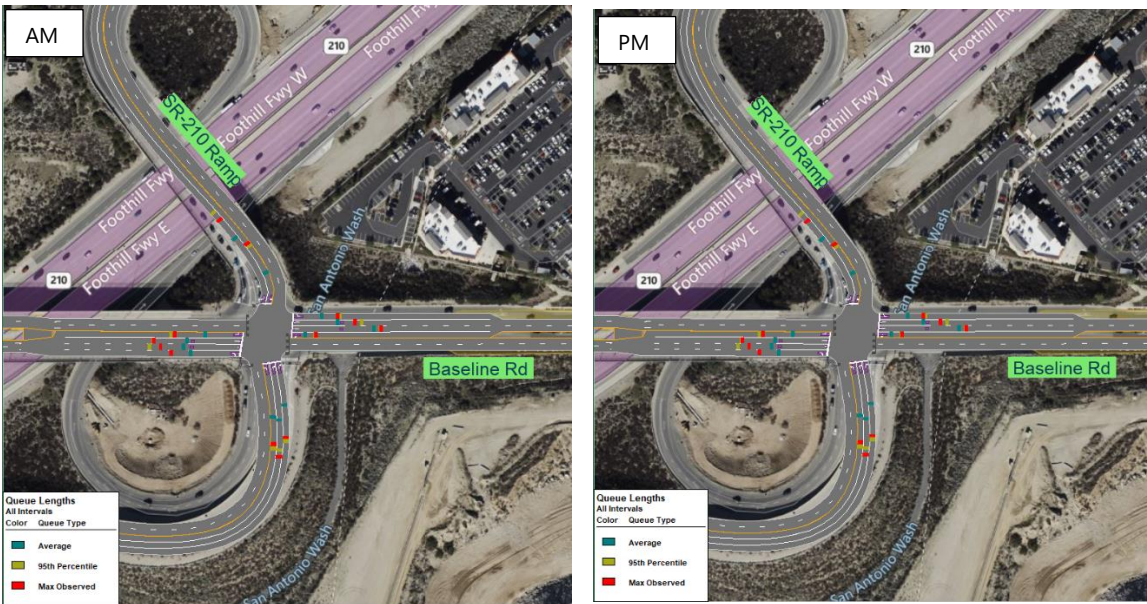
Practice Day



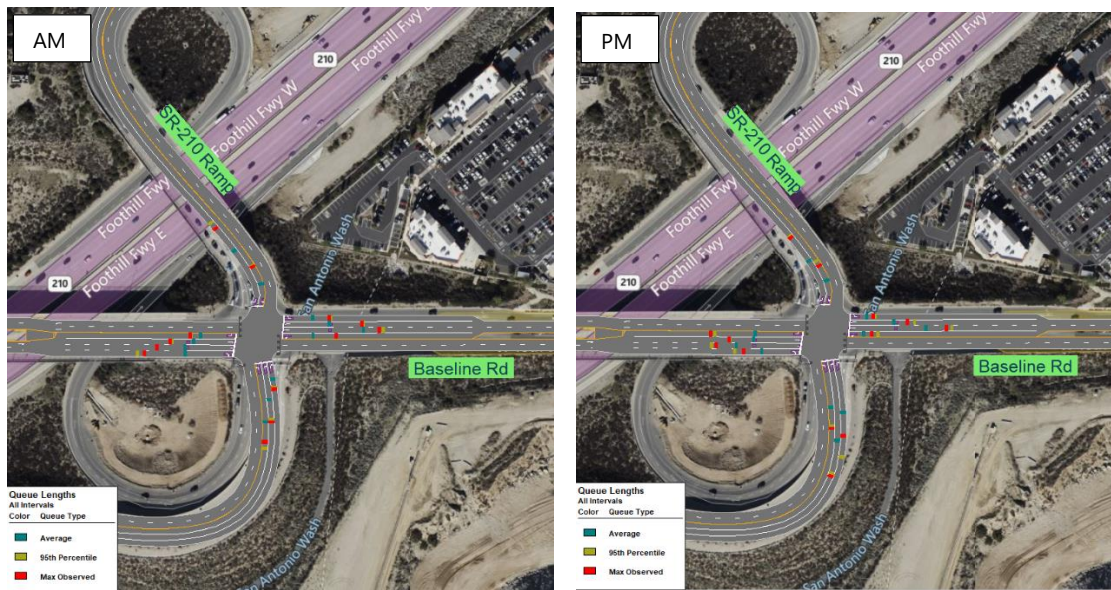
Game Day



Game Day [Fall]



Game Day [Spring]



Horizon Year (2045) With Project Vehicle Queuing Analysis

A vehicle queuing analysis for the SR-210 Ramps at Base Line Road was also conducted for the Horizon Year (2045) With Project conditions, during the AM and PM peak hours for each the Practice Day, Game Day, Game Day [Fall] and Game Day [Spring] scenarios. The queue lengths illustrated in **Figure 2** represent the average and 95th percentile queue lengths. Queuing analysis worksheets are provided in **Appendix B**. The vehicle queuing results are summarized in **Table 2**.

TABLE 2 QUEUING ANALYSIS – HORIZON YEAR 2045 WITH PROJECT

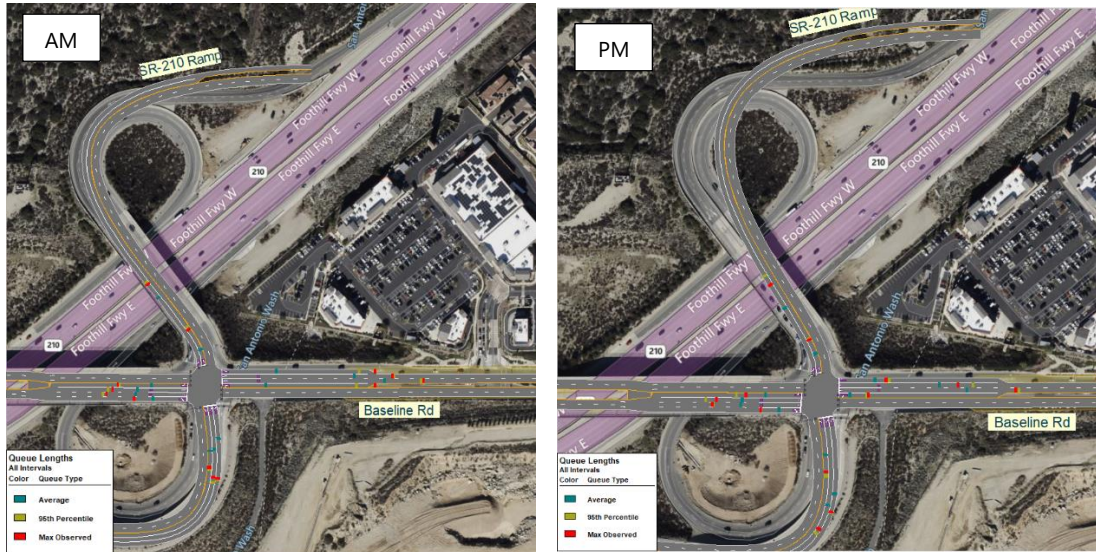
Horizon Year 2045 With Project – 95 th Percentile Queue (ft)									
Direction	Storage length (ft)	Practice Day		Game Day		Game Day [Fall]		Game Day [Spring]	
		AM	PM	AM	PM	AM	PM	AM	PM
NBL	1,365	166	143	430	218	188	208	232	110
NBR	1,890	187	222	122	211	109	172	132	138
SBL	1,600	114	88	63	84	108	92	71	82
SBR	1,600	266	269	535	215	228	344	233	198
Horizon Year 2045 With Project – Average Queue (ft)									
NBL	1,365	118	88	324	120	120	122	148	64
NBR	1,890	85	178	50	185	54	172	58	53
SBL	1,600	44	49	23	47	83	92	38	38
SBR	1,600	218	179	414	174	158	231	150	156

Table 2 shows that the 95th percentile and average queues for the eastbound and westbound off-ramp travel lanes would be significantly shorter than the available vehicle queuing capacities, and no spillback of off-ramp traffic would occur upstream onto the freeway mainline.

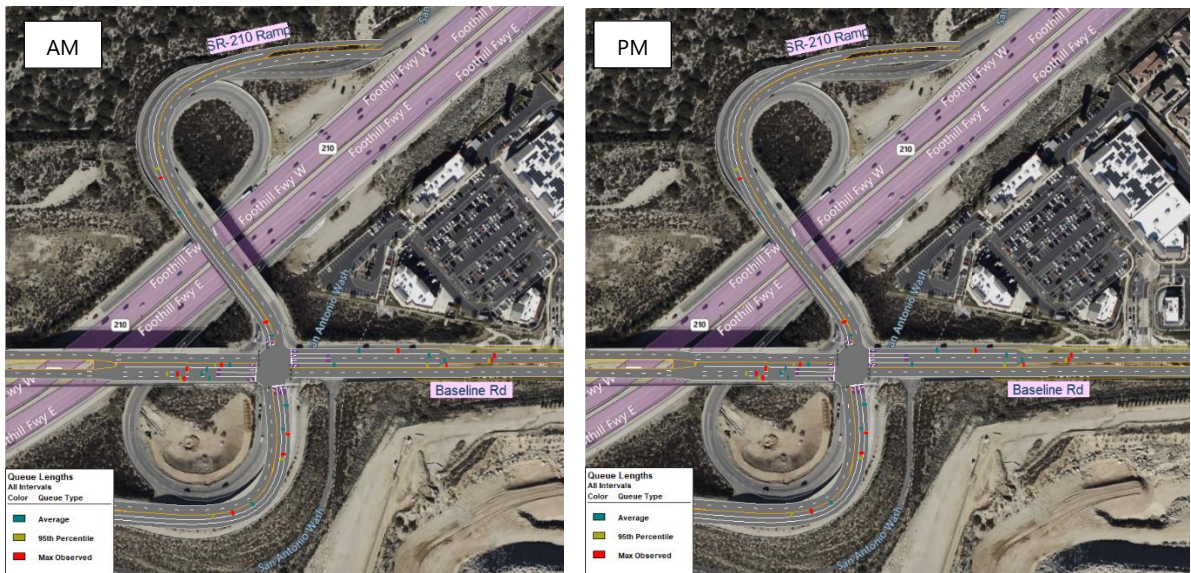
Figure 2 shows the result of the queuing analysis during the Horizon Year 2045 with project conditions.

FIGURE 2 QUEUING ANALYSIS – HORIZON YEAR 2045 WITH PROJECT

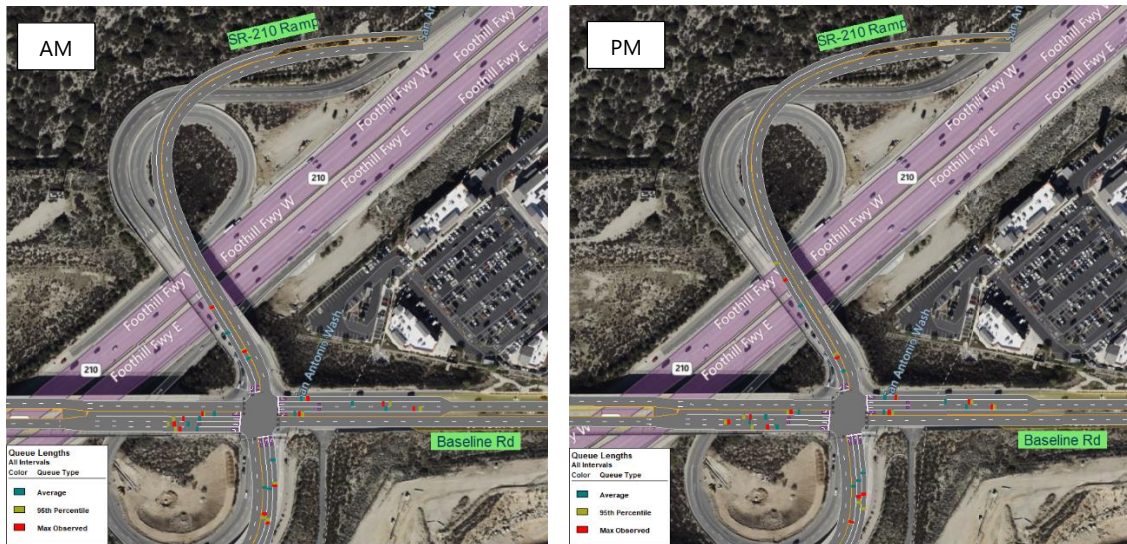
Practice Day



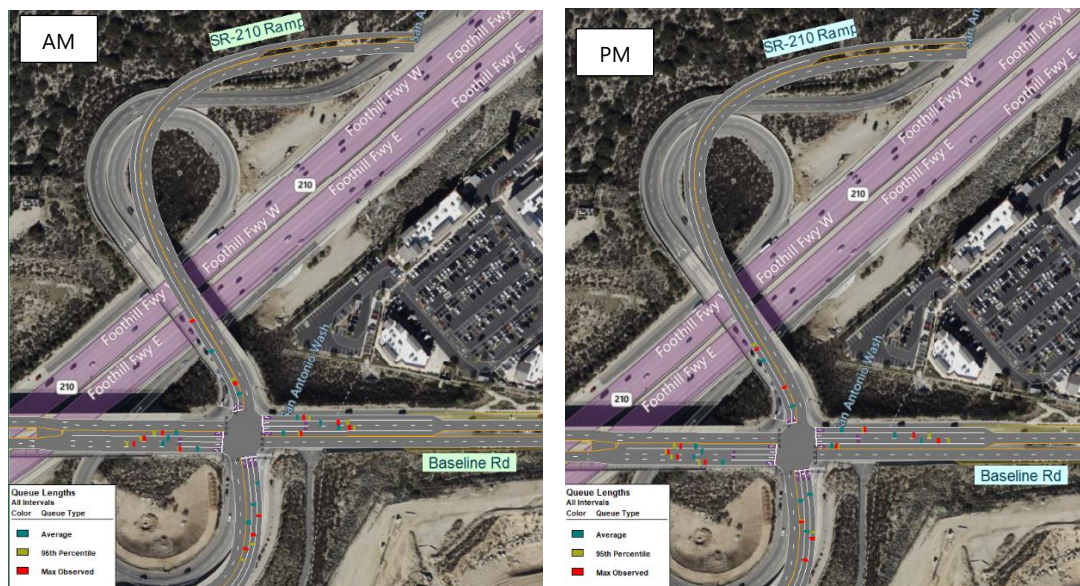
Game Day



Game Day [Fall]



Game Day [Spring]



VEHICLE QUEUING ANALYSIS AT PROJECT DRIVEWAYS

A vehicle queuing analysis was conducted for the four (4) proposed project driveway intersections—including one proposed signalized and one uncontrolled driveway on Claremont Boulevard (i.e., intersections #25 & #27), one uncontrolled driveway on Foothill Boulevard (i.e., intersection #26), and one uncontrolled driveway on Monte Vista Avenue (i.e., intersection #28)—which provide direct access to the CMC East Roberts Campus site:

- #25 Claremont Boulevard and 9th Street = 9th Street Dwy
- #26 Foothill Boulevard and Project Driveway N = N- Dwy
- #27 Claremont Boulevard and Project Driveway SW = SW-Dwy
- #28 Monte Vista Avenue and Project Driveway SE = SE-Dwy

The analysis assesses whether the inbound traffic movements entering the site driveways would result in traffic queuing that could interfere with adjacent traffic on the public roadway. The vehicle queuing analysis was conducted using traffic volume data for the Opening Year With Project and Horizon Year With Project scenarios, during Practice Day, Game Day, Game Day [Fall], and Game Day [Spring] events for both AM and PM peak periods. These scenarios were selected due to their representation of the highest traffic volumes among all evaluated conditions.

Table 3 summarizes the vehicle queuing analysis results. The vehicle queues are based on the average queues and 95th percentile queues. Synchro reports the 95th percentile queue length in feet, which can be compared against the available lane storage lengths at driveway intersections, or be used as a basis to determine the required storage length for planned intersection improvements. The table shows that the 95th percentile vehicle queues for all key turning movements at the proposed project site access points would be shorter than the vehicle queuing capacities at those locations, provided that 125 feet of storage length is provided at the proposed Intersection #25 (Claremont Boulevard at 9th Street) for the southbound left-turn inbound movement during the AM peak hour, and the westbound left-turn outbound movement during the PM peak hour.

Appendix C shows the result of the queuing analysis of project driveways during the Opening Year with the project and Horizon Year with project conditions.

Detailed vehicle queuing analysis worksheets are available in **Appendix D**.

Based on the results from Table 3, the critical 95th percentile queue lengths at the proposed signalized intersection of Claremont Boulevard and 9th Street are as follows:

Westbound Left Turn (site exiting traffic)

- *Opening Year 2027*
 - Game Day – PM peak hour = 117-ft queue
 - Game Day [Fall] – PM peak hour = 121-ft queue
- *Horizon Year 2045*
 - Practice Day – PM peak hour = 99-ft queue
 - Game Day – PM peak hour = 71-ft queue

Southbound Left Turn (site entering traffic)

- *Opening Year 2027*
 - Game Day [Fall] – AM peak hour = 106-ft queue
- *Horizon Year 2045*
 - Game Day [Fall] – AM peak hour = 106-ft queue

The analysis shows that lane capacities for the above two left-turning movements (i.e., southbound and westbound) at the proposed signalized intersection of Claremont Boulevard and 9th Street, at the Project's main entrance driveway, should be designed with a minimum storage of 125 feet. The initial concept design plan for this intersection previously provided 60 and 100-foot turn pockets, respectively, but the proposed design plan will be updated to propose the 125-foot turn pockets identified in this analysis. The 125-foot turn pockets will provide adequate storage capacity to accommodate queue lengths for each turning movement.

TABLE 3 QUEUING ANALYSIS FOR PROJECT DRIVEWAYS

Opening Year with Project – 95 th Percentile Queue (ft)										
Driveways	Direction ¹	Storage length (ft)	Practice Day		Game Day		Game Day [Fall]		Game Day [Spring]	
			AM	PM	AM	PM	AM	PM	AM	PM
9 th St Dwy	NBR	100	-	-	-	-	32	-	-	-
	SBL	125	-	23	-	36	106	-	82	-
	WBL	125	-	54	-	81	-	121	-	89
N-Dwy	EBR	630 ²	-	-	-	-	-	-	-	-
SW-Dwy	NBR	360 ²	-	-	-	-	-	-	-	-
SE-Dwy	SBR	850 ²	-	-	-	-	-	-	-	-
Opening Year with Project – Average Queue (ft)										
9 th St Dwy	NBR	100	-	-	-	-	26	-	-	-
	SBL	125	-	5	-	15	60	-	50	-
	WBL	125	-	41	-	54	-	81	-	66
N-Dwy	EBR	630 ²	-	-	-	-	-	-	-	-
SW-Dwy	NBR	360 ²	-	-	-	-	-	-	-	-
SE-Dwy	SBR	850 ²	-	-	-	-	-	-	-	-
Horizon Year with Project – 95 th Percentile Queue (ft)										
9 th St Dwy	NBR	100	-	-	-	-	31	-	-	-
	SBL	125	-	22	-	-	106	-	101	24
	WBL	125	-	81	-	62	-	91	22	94
N-Dwy	EBR	630 ²	-	-	-	-	-	-	-	-
SW-Dwy	NBR	360 ²	-	-	-	-	-	-	-	-
SE-Dwy	SBR	850 ²	-	-	-	-	-	-	-	-
Horizon Year with Project – Average Queue (ft)										
9 th St Dwy	NBR	100	-	-	-	-	10	-	-	-
	SBL	125	-	5	-	-	73	-	52	6
	WBL	125	-	42	-	37	-	70	5	73
N-Dwy	EBR	630 ²	-	-	-	-	-	-	-	-
SW-Dwy	NBR	360 ²	-	-	-	-	-	-	-	-
SE-Dwy	SBR	850 ²	-	-	-	-	-	-	-	-

¹ Storage lengths at driveway intersections shown in the table above are conceptual. Ultimate storage lengths will be specified under the final design

² Assumed storage length is calculated based on the available stacking distance along the adjacent curb/bike lane, approaching the driveway, to the nearest upstream intersection.

APPENDIX A

O.Y QUEUING WORKSHEETS FOR BASE LINE ROAD AT SR-210 RAMP

Queuing and Blocking Report
Baseline

06/03/2024

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	108	67	72	121	108	329	178	134	95	74	54	42
Average Queue (ft)	40	39	63	87	48	272	132	100	72	61	39	37
95th Queue (ft)	100	66	81	129	117	338	170	149	104	76	59	45
Link Distance (ft)		363	363	363		718	718			1032		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	311
Average Queue (ft)	230
95th Queue (ft)	330
Link Distance (ft)	1297
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	172	219	261	77	26	228	219	81	95	220	174	83
Average Queue (ft)	86	112	131	52	15	176	138	63	72	151	130	39
95th Queue (ft)	187	248	254	89	36	249	218	82	110	248	190	80
Link Distance (ft)		363	363	363		718	718			1032		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	211
Average Queue (ft)	129
95th Queue (ft)	245
Link Distance (ft)	1297
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	112	109	116	115	26	357	332	254	112	73	55	41
Average Queue (ft)	72	55	71	88	5	274	230	218	70	55	26	19
95th Queue (ft)	121	107	111	129	23	393	352	276	121	82	56	47
Link Distance (ft)		363	363	363		718	718			1032		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	230
Average Queue (ft)	197
95th Queue (ft)	238
Link Distance (ft)	1297
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	108	182	189	101	27	201	73	74	73	200	197	63
Average Queue (ft)	83	83	130	60	18	175	58	54	54	180	156	29
95th Queue (ft)	110	173	209	107	35	216	87	76	70	197	191	61
Link Distance (ft)		363	363	363		718	718			1032		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	393
Average Queue (ft)	270
95th Queue (ft)	429
Link Distance (ft)	1297
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	129	170	157	136	49	174	124	90	157	177	144	131
Average Queue (ft)	70	105	112	98	27	160	90	60	101	108	79	62
95th Queue (ft)	137	172	179	136	47	173	136	95	164	166	151	125
Link Distance (ft)		363	363	363		718	718			1032		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	198
Average Queue (ft)	151
95th Queue (ft)	216
Link Distance (ft)	1297
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	110	150	171	97	48	211	155	124	159	198	134	82
Average Queue (ft)	84	98	121	63	28	140	60	78	110	116	74	35
95th Queue (ft)	110	169	195	91	58	227	147	131	164	196	150	80
Link Distance (ft)		363	363	363		718	718			1032		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	178
Average Queue (ft)	113
95th Queue (ft)	169
Link Distance (ft)	1297
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	90	130	157	183	110	196	162	96	159	117	53	86
Average Queue (ft)	69	83	101	100	63	165	96	62	116	71	35	46
95th Queue (ft)	88	127	158	197	110	206	165	100	170	111	49	88
Link Distance (ft)		363	363	363		718	718			1032		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	191
Average Queue (ft)	134
95th Queue (ft)	206
Link Distance (ft)	1297
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	185	147	174	119	48	200	122	51	139	230	154	86
Average Queue (ft)	95	98	133	81	31	159	93	38	91	162	104	51
95th Queue (ft)	177	147	184	136	61	211	136	55	133	224	189	98
Link Distance (ft)		363	363	363		718	718			1032		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	164
Average Queue (ft)	106
95th Queue (ft)	168
Link Distance (ft)	1297
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

APPENDIX B

H.Y QUEUING WORKSHEETS FOR BASE LINE ROAD AT SR-210 RAMP

Queuing and Blocking Report
Baseline

06/03/2024

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	184	198	214	140	404	531	450	405	161	183	184	105
Average Queue (ft)	96	132	137	92	117	428	349	145	118	113	85	44
95th Queue (ft)	180	209	223	141	356	525	454	362	166	196	187	114
Link Distance (ft)		362	362	362		928	928			1068		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)						15	4					
Queuing Penalty (veh)						4	25					

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	260
Average Queue (ft)	218
95th Queue (ft)	266
Link Distance (ft)	1296
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

06/03/2024

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	135	206	216	99	73	428	289	116	132	265	220	86
Average Queue (ft)	87	144	148	55	29	310	245	89	88	206	178	49
95th Queue (ft)	158	232	213	98	69	436	325	124	143	276	222	88
Link Distance (ft)		362	362	362		928	928			1068		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)	4											
Queuing Penalty (veh)	1											

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	244
Average Queue (ft)	179
95th Queue (ft)	269
Link Distance (ft)	1347
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	90	179	204	186	403	520	526	279	379	174	125	61
Average Queue (ft)	69	127	141	120	113	399	358	179	324	112	50	23
95th Queue (ft)	107	177	230	197	353	513	527	275	430	184	122	63
Link Distance (ft)		362	362	362		928	928			1068		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)							13	1				
Queuing Penalty (veh)							4	5				

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	512
Average Queue (ft)	414
95th Queue (ft)	535
Link Distance (ft)	1296
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	92	358	357	95	72	445	404	197	202	251	213	64
Average Queue (ft)	66	170	204	57	35	378	321	130	120	216	185	47
95th Queue (ft)	109	345	351	92	76	520	476	200	218	250	211	84
Link Distance (ft)		362	362	362		928	928			1068		
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	2									
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)		0				14	2					
Queuing Penalty (veh)		0				5	7					

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	206
Average Queue (ft)	174
95th Queue (ft)	215
Link Distance (ft)	1296
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	90	135	156	143	51	321	250	72	179	199	115	104
Average Queue (ft)	62	97	124	102	41	256	177	56	120	123	54	83
95th Queue (ft)	87	158	171	154	60	337	266	69	188	191	109	108
Link Distance (ft)		362	362	362		928	928			1068		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	229
Average Queue (ft)	158
95th Queue (ft)	228
Link Distance (ft)	1347
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	92	189	240	148	55	298	245	71	204	148	143	81
Average Queue (ft)	74	152	190	125	43	239	189	44	122	109	90	48
95th Queue (ft)	100	205	248	184	63	306	252	72	208	159	172	92
Link Distance (ft)		362	362	362		928	928			1068		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	299
Average Queue (ft)	231
95th Queue (ft)	344
Link Distance (ft)	1347
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	137	177	201	98	89	198	172	95	203	171	134	61
Average Queue (ft)	105	123	136	57	49	174	132	80	148	104	58	38
95th Queue (ft)	155	186	216	100	85	209	193	107	232	191	132	71
Link Distance (ft)		362	362	362		928	928			1068		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	231
Average Queue (ft)	150
95th Queue (ft)	233
Link Distance (ft)	1347
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	R	R	L
Maximum Queue (ft)	217	245	225	162	49	280	224	113	114	193	150	82
Average Queue (ft)	183	169	187	122	39	242	181	62	64	136	53	38
95th Queue (ft)	231	249	238	175	52	304	260	110	110	194	138	82
Link Distance (ft)		362	362	362		928	928			1068		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	370				380			380	1000		1000	1000
Storage Blk Time (%)												
Queuing Penalty (veh)												

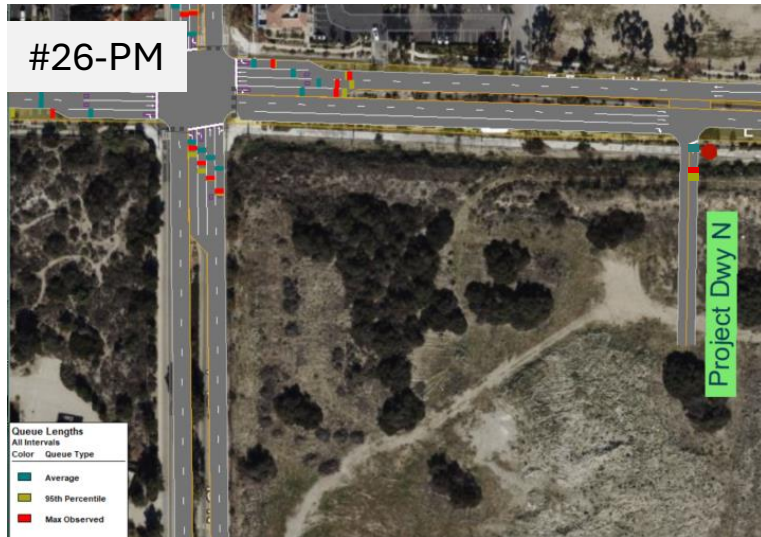
Intersection: 4: Baseline Rd & SR-210 Ramp

Movement	SB
Directions Served	R
Maximum Queue (ft)	186
Average Queue (ft)	156
95th Queue (ft)	198
Link Distance (ft)	1347
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

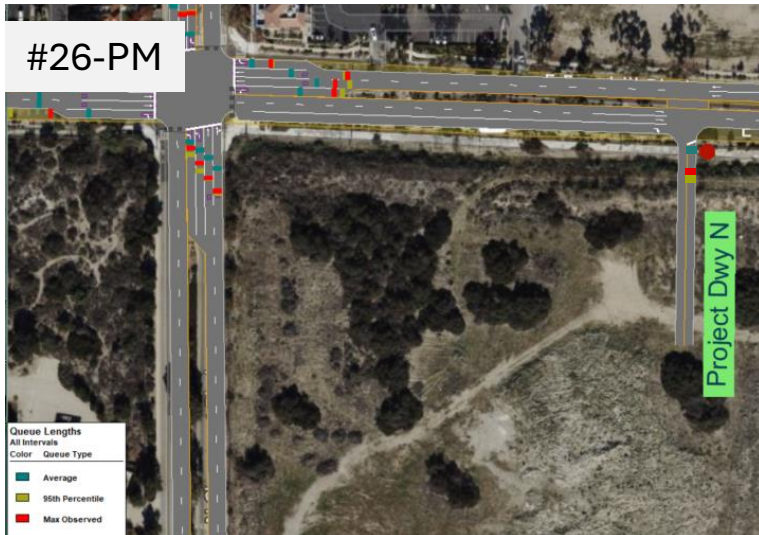
APPENDIX C

QUEUING ANALYSIS FOR PROJECT DRIVEWAYS

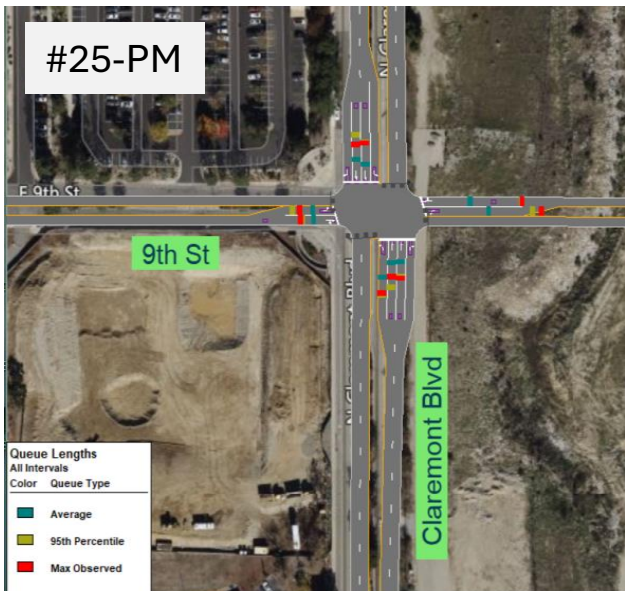
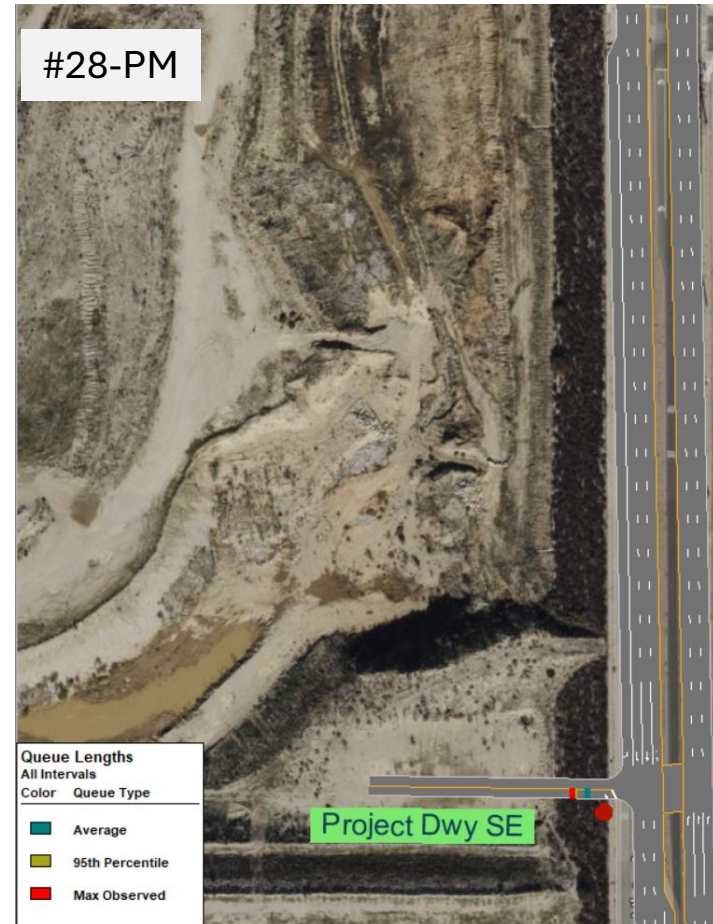
Opening Year with Project-Practice Day



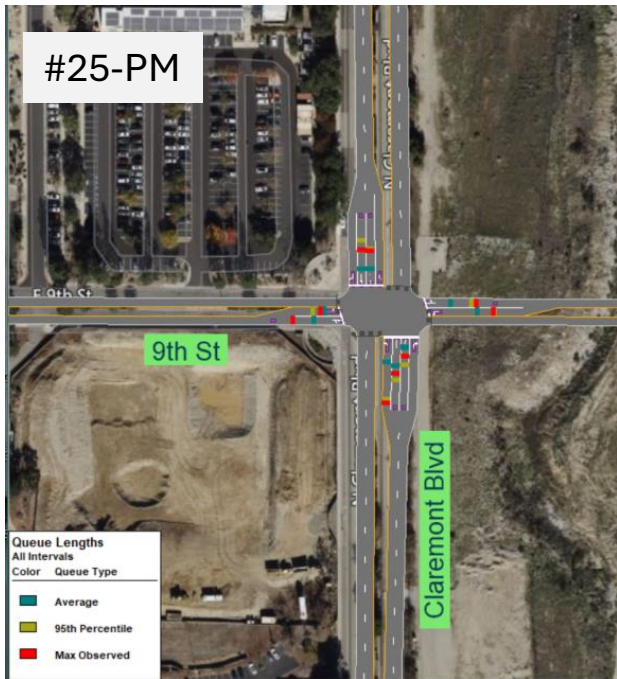
Opening Year with Project-Game Day



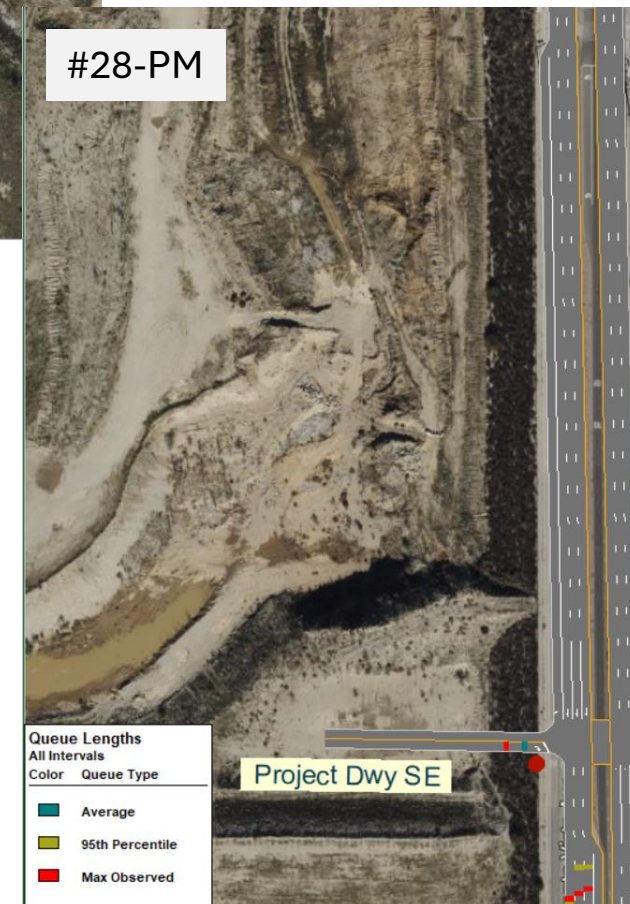
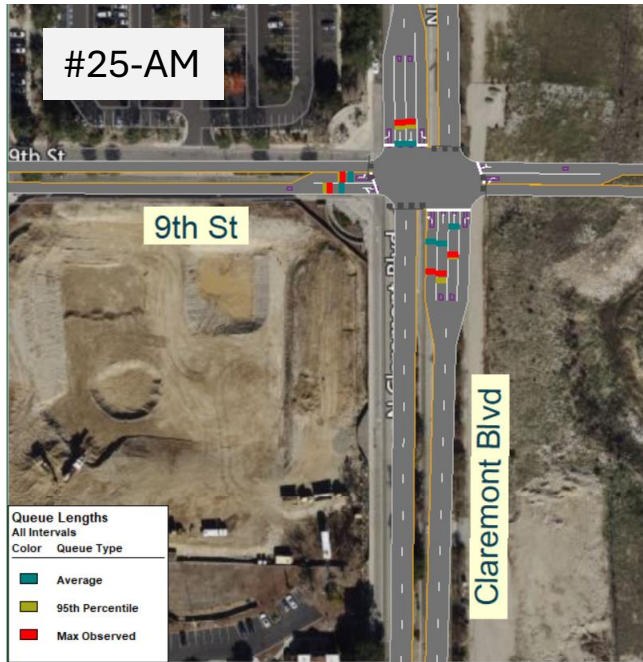
Opening Year with Project-Game Day [Fall]



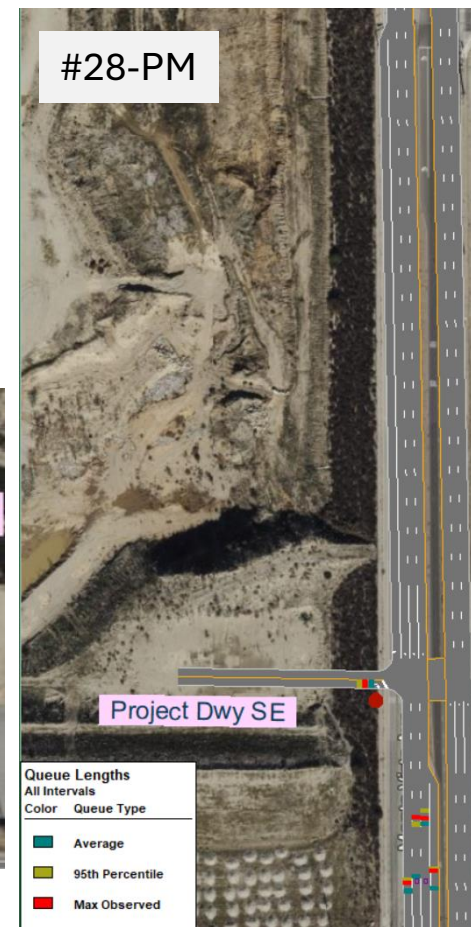
Opening Year with Project-Game Day [Spring]



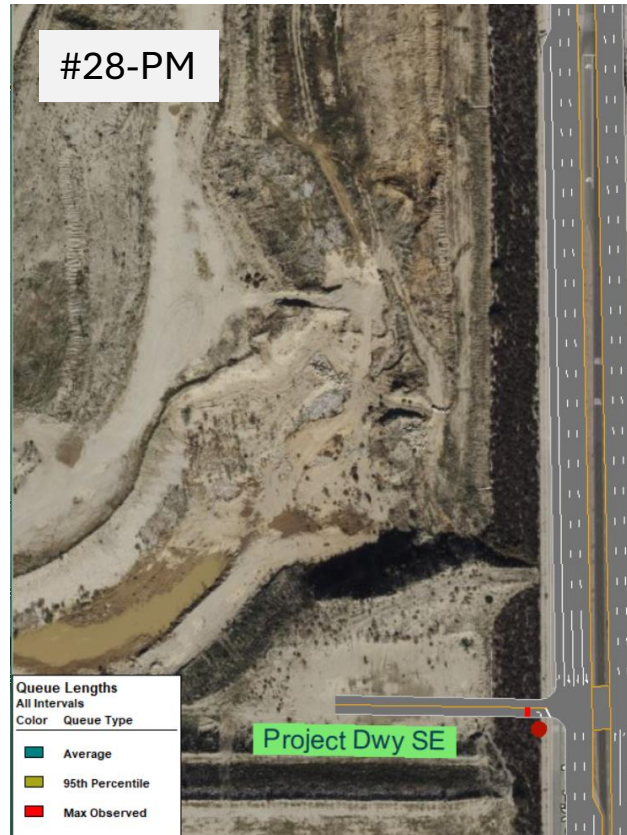
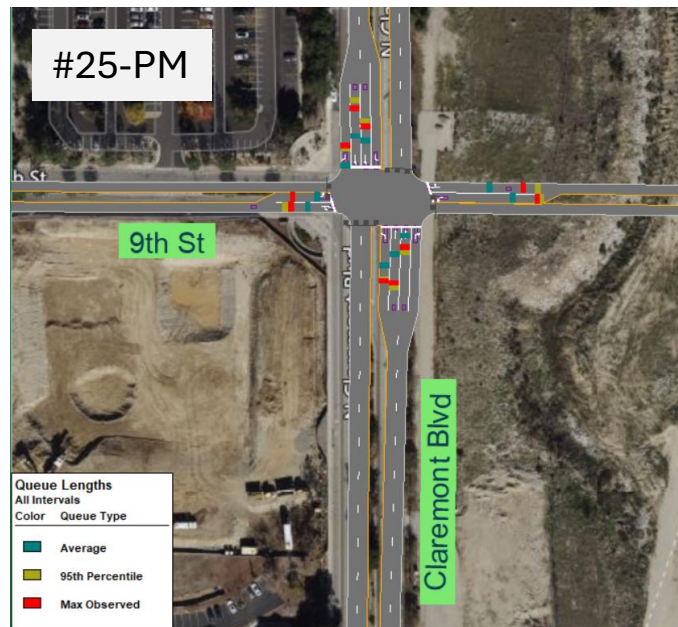
Horizon Year with Project-Practice Day



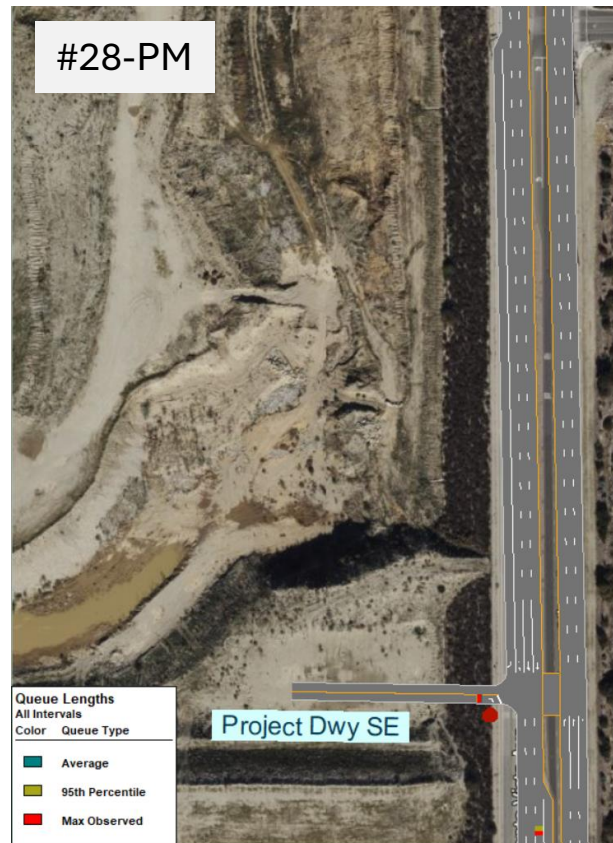
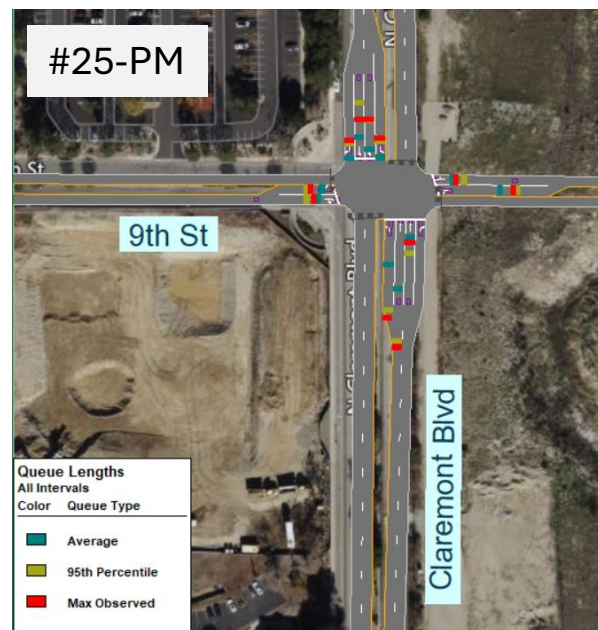
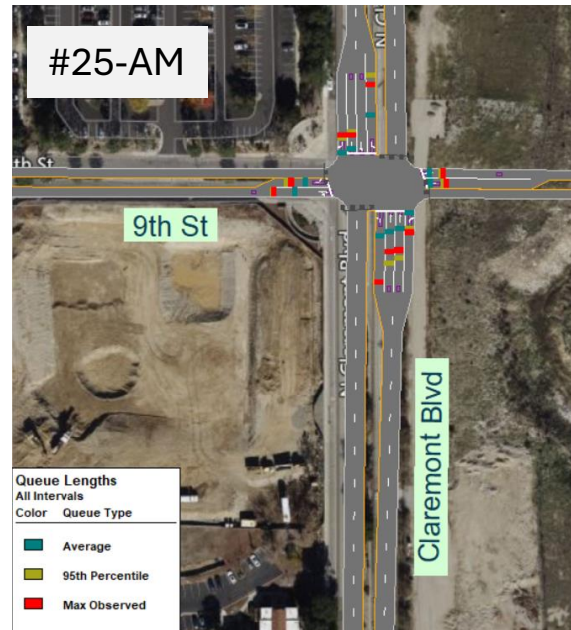
Horizon Year with Project-Game Day



Horizon Year with Project-Game Day [Fall]



Horizon Year with Project-Game Day [Spring]



APPENDIX D

**QUEUING WORKSHEETS FOR
PROJECT DRIVEWAYS**

Queuing and Blocking Report
Baseline

05/29/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	T	T	T	R
Maximum Queue (ft)	41	43	71	59	30	30	31	27
Average Queue (ft)	25	34	44	17	12	16	11	5
95th Queue (ft)	48	52	89	56	35	37	33	23
Link Distance (ft)		637		634	634	1514	1514	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	60		100					100
Storage Blk Time (%)	0	0						
Queuing Penalty (veh)	0	0						

Queuing and Blocking Report

06/11/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	L	T	T
Maximum Queue (ft)	43	124	45	21	92	119	106	26	30	102
Average Queue (ft)	23	61	41	8	52	46	33	5	18	49
95th Queue (ft)	46	131	54	25	106	112	97	23	43	96
Link Distance (ft)		637		369		600	600		1514	1514
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	60		125		100			125		
Storage Blk Time (%)	0	6			0	1	0			0
Queuing Penalty (veh)	0	3			1	1	0			0

Intersection: 26: Project Dwy N & Foothill Blvd

Movement	NB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	13
95th Queue (ft)	38
Link Distance (ft)	278
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: Project Dwy SW & Claremont Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	6
95th Queue (ft)	26
Link Distance (ft)	318
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Project Dwy SE & Monte Vista Ave

Movement	EB
Directions Served	R
Maximum Queue (ft)	29
Average Queue (ft)	6
95th Queue (ft)	25
Link Distance (ft)	299
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

05/29/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T
Maximum Queue (ft)	44	72	38	51	52	52
Average Queue (ft)	19	40	14	27	21	16
95th Queue (ft)	47	79	42	54	63	50
Link Distance (ft)		637		634	1514	1514
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	60		100			
Storage Blk Time (%)	0	2				
Queuing Penalty (veh)	0	1				

Queuing and Blocking Report

06/11/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	44	63	67	85	69	98	85	27	29	50	72	31
Average Queue (ft)	18	41	54	34	34	65	45	5	15	29	39	6
95th Queue (ft)	53	71	81	81	74	95	80	23	36	68	93	26
Link Distance (ft)		637		369		600	600			1514	1514	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	60		125		100			100	125			100
Storage Blk Time (%)	0	1				0	0					
Queuing Penalty (veh)	0	1				0	0					

Intersection: 26: Project Dwy N & Foothill Blvd

Movement	NB
Directions Served	R
Maximum Queue (ft)	24
Average Queue (ft)	19
95th Queue (ft)	34
Link Distance (ft)	267
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: Project Dwy SW & Claremont Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	55
Average Queue (ft)	29
95th Queue (ft)	58
Link Distance (ft)	318
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Project Dwy SE & Monte Vista Ave

Movement	EB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	24
95th Queue (ft)	43
Link Distance (ft)	299
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	T	R	L	T	T
Maximum Queue (ft)	43	64	122	93	70	29	92	50	48
Average Queue (ft)	23	41	67	54	43	26	60	16	10
95th Queue (ft)	46	64	138	110	85	32	106	49	41
Link Distance (ft)		637		634	634			1514	1514
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60		100			100	125		
Storage Blk Time (%)	0	1	10	0			2		
Queuing Penalty (veh)	0	0	19	0			4		

Queuing and Blocking Report

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	T	T	R
Maximum Queue (ft)	44	41	108	136	90	52	29	75	50	31
Average Queue (ft)	27	21	81	72	34	38	15	42	21	6
95th Queue (ft)	54	42	121	125	89	57	36	90	53	27
Link Distance (ft)		637		370		634	634	1514	1514	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	60		125		100					100
Storage Blk Time (%)	0	0	25	2	3					
Queuing Penalty (veh)	0	0	33	2	5					

Intersection: 26: Project Dwy N & Foothill Blvd

Movement	NB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	6
95th Queue (ft)	27
Link Distance (ft)	278
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 26: Project Dwy N & Foothill Blvd

Movement	NB
Directions Served	R
Maximum Queue (ft)	79
Average Queue (ft)	41
95th Queue (ft)	72
Link Distance (ft)	278
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: Project Dwy SW & Claremont Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	30
95th Queue (ft)	31
Link Distance (ft)	318
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Project Dwy SE & Monte Vista Ave

Movement	EB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	30
95th Queue (ft)	30
Link Distance (ft)	299
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

06/11/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	43	68	87	52	27	30	69	24	50	26
Average Queue (ft)	18	35	58	21	5	6	50	9	16	10
95th Queue (ft)	45	67	97	63	23	26	82	28	50	31
Link Distance (ft)		637		600	600			1514	1514	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	60		100			100	125			100
Storage Blk Time (%)	0	1	0							
Queuing Penalty (veh)	0	0	0							

Queuing and Blocking Report

06/11/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	T	T
Maximum Queue (ft)	24	63	88	65	94	54	30	52	53
Average Queue (ft)	19	34	66	29	38	43	18	27	27
95th Queue (ft)	35	62	89	59	89	62	41	54	66
Link Distance (ft)		637		369		600	600	1514	1514
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60		125		100				
Storage Blk Time (%)		1			5				
Queuing Penalty (veh)		0			9				

Intersection: 26: Project Dwy N & Foothill Blvd

Movement	NB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	24
95th Queue (ft)	44
Link Distance (ft)	278
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: Project Dwy SW & Claremont Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	318
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Project Dwy SE & Monte Vista Ave

Movement	EB
Directions Served	R
Maximum Queue (ft)	27
Average Queue (ft)	11
95th Queue (ft)	33
Link Distance (ft)	299
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Project Dwy SE & Monte Vista Ave

Movement	EB
Directions Served	R
Maximum Queue (ft)	49
Average Queue (ft)	28
95th Queue (ft)	54
Link Distance (ft)	299
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Baseline

05/30/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	T	T	T	R
Maximum Queue (ft)	71	69	89	52	93	54	53	31
Average Queue (ft)	45	44	47	22	25	37	37	6
95th Queue (ft)	70	70	87	55	85	71	72	27
Link Distance (ft)		637		633	633	1514	1514	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	60		100					100
Storage Blk Time (%)	10	1	0		1			
Queuing Penalty (veh)	12	0	1		0			

Queuing and Blocking Report

06/11/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	L	T	T	R
Maximum Queue (ft)	60	67	86	43	52	73	30	26	90	96	30
Average Queue (ft)	22	39	42	26	35	42	6	5	30	51	16
95th Queue (ft)	58	76	81	43	50	72	26	22	84	91	38
Link Distance (ft)		637		406		633	633		1514	1514	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	60		125		100			125			100
Storage Blk Time (%)	1	3								0	
Queuing Penalty (veh)	1	1								0	

Intersection: 26: Project Dwy N & Foothill Blvd

Movement	NB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	18
95th Queue (ft)	43
Link Distance (ft)	334
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: Project Dwy SW & Claremont Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	316
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Project Dwy SE & Monte Vista Ave

Movement	EB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	18
95th Queue (ft)	42
Link Distance (ft)	288
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

05/30/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	T	T	R
Maximum Queue (ft)	74	59	54	90	28	70	30
Average Queue (ft)	43	29	34	46	14	37	6
95th Queue (ft)	82	54	51	85	34	64	26
Link Distance (ft)		637		633	1514	1514	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	60		100				100
Storage Blk Time (%)	9	1		0			
Queuing Penalty (veh)	10	0		0			

Queuing and Blocking Report

06/11/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	T	T	R
Maximum Queue (ft)	59	64	64	21	52	116	94	71	113	31
Average Queue (ft)	30	44	37	21	30	54	46	42	63	18
95th Queue (ft)	63	63	62	21	58	107	95	70	128	42
Link Distance (ft)		637		406		633	633	1514	1514	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	60		125		100					100
Storage Blk Time (%)	0	1				2	1		2	
Queuing Penalty (veh)	1	0				1	0		1	

Intersection: 26: Project Dwy N & Foothill Blvd

Movement	NB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	30
95th Queue (ft)	32
Link Distance (ft)	334
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: Project Dwy SW & Claremont Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	25
95th Queue (ft)	45
Link Distance (ft)	316
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Project Dwy SE & Monte Vista Ave

Movement	EB
Directions Served	R
Maximum Queue (ft)	54
Average Queue (ft)	23
95th Queue (ft)	57
Link Distance (ft)	288
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	TR	L	T	T	R	L	T	T
Maximum Queue (ft)	63	51	21	134	72	94	29	93	30	29
Average Queue (ft)	19	31	8	41	47	59	10	73	6	16
95th Queue (ft)	59	53	25	122	73	96	31	106	26	38
Link Distance (ft)		637	406		633	633			1514	1514
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	60			100			100	125		
Storage Blk Time (%)	3	5		7		0		1		
Queuing Penalty (veh)	3	1		13		0		2		

Queuing and Blocking Report

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	T	T	R
Maximum Queue (ft)	44	65	84	217	51	155	30	94	140	29
Average Queue (ft)	29	38	70	112	30	65	6	35	54	6
95th Queue (ft)	55	65	91	232	49	163	26	93	132	25
Link Distance (ft)		637		406		633	633	1514	1514	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	60		125		100					100
Storage Blk Time (%)	0	1	22	9		5		0	3	
Queuing Penalty (veh)	0	0	29	15		3		0	1	

Intersection: 26: Project Dwy N & Foothill Blvd

Movement	NB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	31
95th Queue (ft)	31
Link Distance (ft)	334
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: Project Dwy SW & Claremont Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	6
95th Queue (ft)	27
Link Distance (ft)	316
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: Project Dwy SW & Claremont Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	31
95th Queue (ft)	31
Link Distance (ft)	316
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Project Dwy SE & Monte Vista Ave

Movement	EB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	30
95th Queue (ft)	30
Link Distance (ft)	288
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

06/11/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	R
Maximum Queue (ft)	43	65	25	21	92	54	52	29	90	27	27
Average Queue (ft)	25	39	5	4	35	29	26	6	52	10	5
95th Queue (ft)	49	66	22	18	92	69	62	25	101	31	24
Link Distance (ft)		637		406		633	633			1514	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	60		125		100			100	125		100
Storage Blk Time (%)	0	2			1						
Queuing Penalty (veh)	0	1			2						

Queuing and Blocking Report

06/11/2024

Intersection: 25: Claremont Blvd & 9th St

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	L	T	T	R
Maximum Queue (ft)	25	21	89	21	119	154	31	28	50	51	26
Average Queue (ft)	12	17	73	17	57	85	24	6	16	30	5
95th Queue (ft)	31	30	94	31	110	147	43	24	50	70	22
Link Distance (ft)		637		406		633	633		1514	1514	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	60		125		100			125			100
Storage Blk Time (%)					10	1					
Queuing Penalty (veh)					19	0					

Intersection: 26: Project Dwy N & Foothill Blvd

Movement	NB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	334
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 26: Project Dwy N & Foothill Blvd

Movement	NB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	19
95th Queue (ft)	43
Link Distance (ft)	334
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: Project Dwy SW & Claremont Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	6
95th Queue (ft)	26
Link Distance (ft)	316
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: Project Dwy SW & Claremont Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	53
Average Queue (ft)	29
95th Queue (ft)	57
Link Distance (ft)	316
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Project Dwy SE & Monte Vista Ave

Movement	EB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	17
95th Queue (ft)	40
Link Distance (ft)	288
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	