Appendix E Traffic Study

Transportation Impact Analysis

Loomis Costco Warehouse

Loomis, California

October 2019

KITTELSON & ASSOCIATES

Transportation Impact Analysis

Costco Warehouse TIA

Loomis, California

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Project No. 20345

October 2019

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Section 1 Executive Summary

EXECUTIVE SUMMARY

Costco Wholesale Corporation (Costco) proposes to develop a new warehouse with a tire center and fuel station (collectively referred to as the "Project") in The Town of Loomis (Town) along the east side of Sierra College Boulevard south of Brace Road. The Project includes a Costco Warehouse building measuring approximately 155,000 square feet, a Costco Gasoline fuel station with up to 30 fueling positions and supporting parking.

The proposed site plan provides access to the site at three locations including a new signalized intersection on Sierra College Boulevard, a right-in/right-out only driveway located on Brace Road, and a full movement driveway located further east on Brace Road. In addition to analyzing the traffic impacts associated with the proposed site access (Project Driveway Option 1A), study intersection traffic operations are documented in this report for two alternative site access options for comparison purposes. For ease of identification, the access options will be referenced in this report as follows:

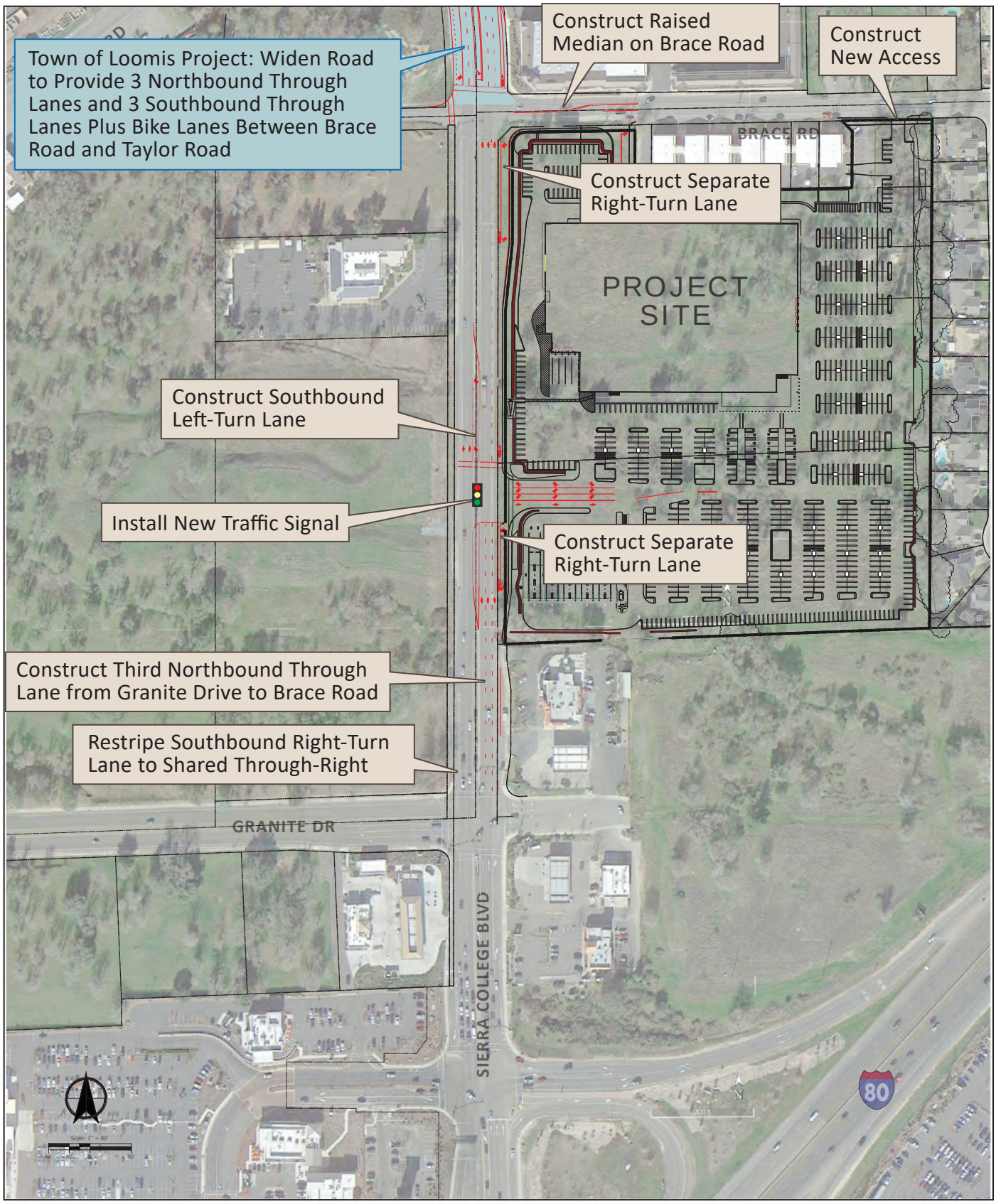
- Project Driveway Option 1A (proposed Project site plan)
- Project Driveway Option 1B, which includes:
  - A new signalized intersection along Sierra College Boulevard (same as Option 1A);
  - A right-in/right-out only driveway on Brace Road (same as Option 1A); and
  - A shared drive aisle connection to Granite Drive.
- Project Driveway Option 1C: this option includes the same access as Option 1A plus a shared drive aisle connection to Granite Drive.

In conjunction with site development, Costco would provide right-of-way dedications and widen Sierra College Boulevard along the Project site frontage, activating a third northbound travel lane between Granite Drive and Brace Road. Separate northbound right-turn lanes would be constructed on Sierra College Boulevard at the new signalized Costco access and at Brace Road. The new signalized entry on Sierra College Boulevard would be designed to accommodate a potential fourth approach to serve future Rocklin development on the vacant lot across Sierra College Boulevard to the west.

For the Project access scenarios involving a connection to Granite Drive, Costco would reconfigure Granite Drive east of Sierra College Boulevard to provide side-by-side eastbound and westbound left-turn lanes on Granite Drive (separated by a raised median) between Sierra College Boulevard and the new north-south drive aisle connecting to the Project site.

Figure EX-1 illustrates the proposed site driveway locations and summarizes key planned transportation infrastructure serving the site. In addition to the recommended improvements to be constructed by Costco described above and shown in Figure EX-1, the Town of Loomis will be separately completing widening of Sierra College Boulevard to three lanes northbound and three lanes southbound between Brace Road and Taylor Road as part of a funded Capital Improvement Plan project. The Sierra College Boulevard widening by the Town north of Brace Road is expected to be completed prior to opening of the Costco.

Based on the analysis methodology and significance criteria approved by the Town, Table A lists the study intersections performing at unacceptable level-of-service (LOS) as well as locations impacted by the Project. Table B lists the study intersections where queues extend beyond the available storage lengths as well as locations impacted by the Project. Table C lists the specific project mitigation measures.



Proposed Costco Transportation Improvements
Loomis, CA

Figure
EX-1

KITTELSON & ASSOCIATES

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Table A: Study Area Intersection LOS Results Summary

ID	Intersection	Jurisdiction	Existing Conditions				Cumulative Short Term Conditions				Cumulative Long Term Conditions			
			Unacceptable LOS?		Project Impact?	Significance after Mitigation?	Unacceptable LOS?		Project Impact?	Significance after Mitigation?	Unacceptable LOS?		Project Impact?	Significance after Mitigation?
			Existing	Existing + Project			Short Term	Short Term + Project			Long Term	Long Term + Project		
1	Taylor Road & King Road	Loomis	-	-	-	-	Yes	Yes	-	-	Yes	Yes	-	-
2	Taylor Road & Horseshoe Bar Road	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
3	Horseshoe Bar Road & I-80 Westbound Ramp	Caltrans	-	-	-	-	-	-	-	-	-	-	-	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	Caltrans	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
5	Barton Road & Brace Road	Loomis	-	-	-	-	-	-	-	-	Yes	Yes	-	-
6	Sierra College Boulevard & Taylor Road	Loomis	Yes	Yes	-	-	Yes	Yes	Yes	LTS	Yes	Yes	Yes	LTS
7	Sierra College Boulevard & Brace Road	Loomis	-	-	-	-	-	-	-	-	Yes	Yes	-	-
8	Sierra College Boulevard & Granite Drive	Rocklin	-	-	-	-	Yes	Yes	Yes	SU	Yes	Yes	Yes[1]	SU
9	Sierra College Boulevard & I-80 Westbound Ramps	Caltrans	-	-	-	-	-	Yes	Yes	SU	-	-	-	-
10	Sierra College Boulevard & I-80 Eastbound Ramps	Caltrans	-	-	-	-	-	-	-	-	-	-	-	-
11	Sierra College Boulevard & Schriber Way	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
12	Sierra College Boulevard & Bass Pro Drive-Dominguez Road	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	Yes	SU
13	Sierra College Boulevard & Stadium Driveway	Rocklin	-	-	-	-	-	-	-	-	-	-	-	-
14	Sierra College Boulevard & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
15	Pacific Street & Dominguez Road-Delmar Avenue	Rocklin	Yes	Yes	-	-	Yes	Yes	Yes	SU	Yes	Yes	-	-
16	Pacific Street & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
17	Granite Drive & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	Yes	SU	Yes	Yes	-	-
18	I-80 Westbound Ramps & Rocklin Road	Caltrans	-	-	-	-	-	-	-	-	Yes	Yes	-	-
19	I-80 Eastbound Ramps & Rocklin Road	Caltrans	-	-	-	-	-	-	-	-	Yes	Yes	-	-
20	Aguilar Road & Rocklin Road	Rocklin	-	-	-	-	-	-	-	-	-	-	-	-
21	Sierra College Boulevard & Driveway South of Brace Road	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
22	Granite Drive & Dominguez Road	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
23	El Don Drive & Rocklin Road	Rocklin	Yes	Yes	-	-	-	-	-	-	Yes	Yes	-	-
24	Sierra College Boulevard & Project Driveway – Future West Access by	Loomis	DNE	-	-	-	DNE	-	-	-	Yes	-	-	-
25	Brace Road & Project Driveway	Loomis	DNE	-	-	-	DNE	-	-	-	DNE	-	-	-
26	Sierra College Boulevard & SR-193	Placer	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU
27	Sierra College Boulevard & English Colony Way	Placer	-	-	-	-	Yes	Yes	Yes	SU	Yes	Yes	-	-
28	Sierra College Boulevard & Delmar Avenue	Placer	Yes	Yes	-	-	Yes	Yes	-	-	-	-	-	-
29	Taylor Road & English Colony Way	Placer	-	-	-	-	-	Yes	Yes	SU	Yes	Yes	-	-
30	Taylor Road & Penryn Road (North)	Placer	-	-	-	-	-	-	-	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	Placer	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU	-	-	-	-
32	Taylor Road & Del Oro High School North Lot	Loomis	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
33	Taylor Road & Del Oro High School Drop-Off	Loomis	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
34	Taylor Road & Del Oro High School South Lot	Loomis	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
35	Taylor Road & Rippey Road	Loomis	-	-	-	-	-	-	-	-	Yes	Yes	-	-
36	Taylor Road & Webb Street	Loomis	Yes	Yes	Yes	SU	Yes	Yes	Yes	LTS	Yes	Yes	Yes	LTS
37	Brace Road & Project Driveway East	Loomis	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Project Impacts apply to all Project Driveway Options unless otherwise noted: 1: Under Project Driveway Option 1A only. 2: Under Project Driveway Option 1B only. 3: Under Project Driveway Option 1C only.

SU: Significant and Unavoidable Impact. LTS: Less Than Significant Impact DNE: Intersection does not exist under no Project conditions.

Source: Kittelson & Associates, 2019

Table B: Study Area Queuing Results Summary

ID	Intersection	Jurisdiction	Existing Conditions				Cumulative Short Term Conditions				Cumulative Long Term Conditions			
			95th Percentile Queue>Storage?		Project Impact?	Significance after Mitigation?	95th Percentile Queue>Storage?		Project Impact?	Significance after Mitigation?	95th Percentile Queue>Storage?		Project Impact?	Significance after Mitigation?
			Existing	Existing + Project			Short Term	Short Term + Project			Long Term	Long Term + Project		
1	Taylor Road & King Road	Loomis	Yes	Yes	Yes	LTS	Yes	Yes	-	-	Yes	Yes	Yes	LTS
2	Taylor Road & Horseshoe Bar Road	Loomis	Yes	Yes	-	-	Yes	Yes	Yes	SU	Yes	Yes	Yes	LTS
3	Horseshoe Bar Road & I-80 Westbound Ramp	Caltrans	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	Caltrans	-	-	-	-	-	-	-	-	Yes	Yes	-	-
5	Barton Road & Brace Road	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
6	Sierra College Boulevard & Taylor Road	Loomis	Yes	Yes	-	-	Yes	Yes	Yes	LTS	Yes	Yes	Yes	LTS
7	Sierra College Boulevard & Brace Road	Loomis	-	Yes	Yes[2]	LTS	Yes	Yes	Yes[2]	LTS	Yes	Yes	Yes[2]	LTS
8	Sierra College Boulevard & Granite Drive	Rocklin	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU
9	Sierra College Boulevard & I-80 Westbound Ramps	Caltrans	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU
10	Sierra College Boulevard & I-80 Eastbound Ramps	Caltrans	-	-	-	-	Yes	Yes	-	-	Yes	Yes	-	-
11	Sierra College Boulevard & Schriber Way	Rocklin	-	-	-	-	Yes	Yes	-	-	Yes	Yes	-	-
12	Sierra College Boulevard & Bass Pro Drive-Dominguez Road	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
13	Sierra College Boulevard & Stadium Driveway	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
14	Sierra College Boulevard & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
15	Pacific Street & Dominguez Road-Delmar Avenue	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
16	Pacific Street & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
17	Granite Drive & Rocklin Road	Rocklin	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU
18	I-80 Westbound Ramps & Rocklin Road	Caltrans	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
19	I-80 Eastbound Ramps & Rocklin Road	Caltrans	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
20	Aguilar Road & Rocklin Road	Rocklin	-	-	-	-	Yes	Yes	-	-	Yes	Yes	-	-
21	Sierra College Boulevard & Driveway South of Brace Road	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
22	Granite Drive & Dominguez Road	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
23	El Don Drive & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
24	S Sierra College Boulevard & Project Driveway – Future West Access by Others	Loomis	DNE	-	-	-	DNE	Yes	Yes	LTS	Yes	Yes	Yes	LTS
25	Brace Road & Project Driveway	Loomis	DNE	-	-	-	DNE	-	-	-	DNE	-	-	-
26	Sierra College Boulevard & SR-193	Placer	-	-	-	-	Yes	Yes	Yes	SU	Yes	Yes	-	-
27	Sierra College Boulevard & English Colony Way	Placer	-	-	-	-	-	-	-	-	Yes	Yes	-	-
28	Sierra College Boulevard & Delmar Avenue	Placer	-	-	-	-	-	-	-	-	-	-	-	-
29	Taylor Road & English Colony Way	Placer	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
30	Taylor Road & Penryn Road (North)	Placer	-	-	-	-	-	-	-	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	Placer	-	-	-	-	-	-	-	-	Yes	Yes	-	-
32	Taylor Road & Del Oro High School North Lot	Loomis	-	-	-	-	-	-	-	-	Yes	Yes	-	-
33	Taylor Road & Del Oro High School Drop-Off	Loomis	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
34	Taylor Road & Del Oro High School South Lot	Loomis	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
35	Taylor Road & Rippey Road	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
36	Taylor Road & Webb Street	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
37	Brace Road & Project Driveway East	Loomis	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Project Impacts apply to all Project Driveway Options unless otherwise noted: 1: Under Project Driveway Option 1A only. 2: Under Project Driveway Option 1B only. 3: Under Project Driveway Option 1C only.

SU: Significant and Unavoidable Impact. LTS: Less Than Significant Impact DNE: Intersection does not exist under no Project conditions.

Source: Kittelson & Associates, 2019

Table C: Proposed Mitigation Measure Summary

Intersection	Project Driveway Option(s) Requiring Mitigation	Type of Impact	Jurisdiction	Mitigation Measure	Significance After Mitigation
Existing plus Project Conditions					
1: Taylor Road & King Road	Options 1A, 1B, 1C	Queue (WBL)	Loomis	TR MM 1: Modify signal timing	Less than significant
7: Sierra College Boulevard & Brace Road	Option 1B	Queue (WBL)	Loomis	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Less than significant
8: Sierra College Boulevard & Granite Drive	Option 1A	Queue (NBT, SBT, EBL)	Rocklin	TR MM 1: Modify signal timing TR MM 4: Restripe intersection	Significant unavoidable*
8: Sierra College Boulevard & Granite Drive	Options 1B, 1C	Queue (WBL)	Rocklin	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Significant unavoidable*
9: Sierra College Boulevard & I-80 Westbound Ramps	Options 1A, 1B, 1C	Queue (SBT)	Caltrans	TR MM 1: Modify signal timing	Significant unavoidable*
17: Granite Drive & Rocklin Road	Options 1A, 1B, 1C	Queue (EBL)	Rocklin	TR MM 1: Modify signal timing	Significant unavoidable*
26: Sierra College Boulevard & SR-193	Options 1A, 1B, 1C	LOS	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
31: Taylor Road & Penryn Road (South)	Options 1A, 1B, 1C	LOS	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
36: Taylor Road & Webb Street	Options 1A, 1B, 1C	LOS	Loomis	TR MM 4: Restripe intersection	Significant unavoidable[1]
Cumulative Short Term plus Project Conditions					
2: Taylor Road & Horseshoe Bar Road	Options 1A, 1B, 1C	Queue (NBT, SBT)	Loomis	TR MM 1: Modify signal timing	Significant unavoidable[2]
6: Sierra College Boulevard & Taylor Road	Options 1A, 1B, 1C	LOS	Loomis	TR MM 1: Modify signal timing TR MM 3: Modify signal phasing TR MM 7: Add storage to turn pockets	Less than significant
		Queue (NBL, WBL)			Less than significant
7: Sierra College Boulevard & Brace Road	Option 1B	Queue (SBL, WBL)	Loomis	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Less than significant
8: Sierra College Boulevard & Granite Drive	Option 1A	Queue (NBT, SBT, EBL)	Rocklin	TR MM 2: Provide signal coordination TR MM 4: Restripe intersection	Significant unavoidable*

Intersection	Project Driveway Option(s) Requiring Mitigation	Type of Impact	Jurisdiction	Mitigation Measure	Significance After Mitigation
8: Sierra College Boulevard & Granite Drive	Options 1B, 1C	LOS	Rocklin	TR MM 2: Provide signal coordination TR MM 4: Restripe Intersection	Significant unavoidable*
		Queue (NBT, SBT, EBL, WBL)			Significant unavoidable*
9: Sierra College Boulevard & I-80 Westbound Ramps	Options 1A, 1B, 1C	LOS	Caltrans	TR MM 1: Modify signal timing TR MM 5: Add exclusive turn lanes	Significant unavoidable*
		Queue (SBT)			Significant unavoidable*
15: Pacific Street & Dominguez Road-Delmar Avenue	Options 1A, 1B, 1C	LOS	Rocklin	TR MM 1: Modify signal timing	Significant unavoidable*
17: Granite Drive & Rocklin Road	Options 1A, 1B, 1C	LOS/Queue (EBL)	Rocklin	TR MM 1: Modify signal timing	Significant unavoidable*
24: Sierra College Boulevard & Project Driveway	Option 1A	Queue (SBL)	Loomis	TR MM 1: Modify signal timing	Less than significant
26: Sierra College Boulevard & SR-193	Options 1A, 1B, 1C	LOS/Queue (NBR)	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
27: Sierra College Boulevard & English Colony Way	Options 1A, 1B, 1C	LOS	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
29: Taylor Road & English Colony Way	Options 1A, 1B, 1C	LOS	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
31: Taylor Road & Penryn Road (South)	Options 1A, 1B, 1C	LOS	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
36: Taylor Road & Webb Street	Options 1A, 1B, 1C	LOS	Loomis	TR MM 4: Restripe Intersection	Less than significant
Cumulative Long Term plus Project Conditions					
1: Taylor Road & King Road	Options 1A, 1B, 1C	Queue (WBL)	Loomis	TR MM 1: Modify signal timing	Less than significant
2: Taylor Road & Horseshoe Bar Road	Options 1A, 1B, 1C	Queue (NBT)	Loomis	TR MM 1: Modify signal timing	Less than significant
6: Sierra College Boulevard & Taylor Road	Options 1A, 1B, 1C	LOS	Loomis	TR MM 1: Modify signal timing TR MM 3: Modify signal phasing	Less than significant
		Queue (NBL, WBL)			Less than significant
7: Sierra College Boulevard & Brace Road	Option 1B	Queue (SBL, WBL)	Loomis	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Less than significant
8: Sierra College Boulevard & Granite Drive	Option 1A	LOS	Rocklin	TR MM 2: Provide signal coordination TR MM 4: Restripe Intersection	Significant unavoidable*
		Queue (NBT, SBT, EBL)			

Intersection	Project Driveway Option(s) Requiring Mitigation	Type of Impact	Jurisdiction	Mitigation Measure	Significance After Mitigation
8: Sierra College Boulevard & Granite Drive	Options 1B, 1C	Queue (NBT, SBT, WBL)	Rocklin	TR MM 2: Provide signal coordination TR MM 4: Restripe Intersection	Significant unavoidable*
9: Sierra College Boulevard & I-80 Westbound Ramps	Options 1A, 1B, 1C	Queue (SBT)	Caltrans	TR MM 1: Modify signal timing TR MM 5: Add exclusive turn lanes	Significant unavoidable[3]
17: Granite Drive & Rocklin Road	Options 1A, 1B, 1C	Queue (EBL)	Rocklin	TR MM 1: Modify signal timing	Significant unavoidable*
24: Sierra College Boulevard & Project Driveway	Option 1A	Queue (SBL)	Loomis	TR MM 2: Provide signal coordination	Less than significant
24: Sierra College Boulevard & Project Driveway	Options 1B, 1C	Queue (SBL)	Loomis	TR MM 7: Add storage to turn pockets	Less than significant
26: Sierra College Boulevard & SR-193	Options 1A, 1B, 1C	LOS	Placer	TR MM 1: Modify signal timing TR MM 5: Add exclusive turn lanes	Significant unavoidable*
36: Taylor Road & Webb Street	Options 1A, 1B, 1C	LOS	Loomis	TR MM 4: Restripe Intersection	Less than significant

Notes:
NB: northbound, SB: southbound, EB: eastbound, WD: westbound, L: left turn lane, T: through lane, R: right turn lane
*Though the mitigation measure improves the intersection operation to less than significant levels, the mitigation measures may be deemed infeasible or outside of the lead agency jurisdiction to implement.
[1]Temporary impact given this impact can be mitigated with the westbound right-turn mitigation measure under Short Term and Long Term conditions. Traffic volumes projected at intersection do not meet signal traffic warrants.

[2]The proposed mitigation does not reduce queues to No Project Conditions and additional geometric improvements are not feasible due to site constraints.

[3] The impact could not be mitigated to less than significant levels. A fourth southbound through lane may be needed to accommodate traffic volumes. The mitigation measures may be deemed infeasible or outside of the lead agency jurisdiction to implement.
Source: Kittelson & Associates, Inc. 2019

Section 1
Introduction

1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION

The Project proposes an approximately 155,000 square foot warehouse with a tire center and a Costco Gasoline fuel station with up to 30 fueling positions. The approximately 17.4-acre site would provide 778 parking stalls, including 16 accessible stalls. The proposed site plan exceeds the Town's minimum parking requirement of five stalls per thousand square feet (765 spaces). Bike parking would also be provided consistent with City requirements.

Proposed Site Access

The proposed Project site plan provides access to the site at three locations:

- A proposed new Project signalized intersection along Sierra College Boulevard;
- A right-in/right-out only Project driveway on Brace Road located approximately 215 feet east of Sierra College Boulevard (measured curb-to-curb); and
- A full access Project driveway on Brace Road located approximately 675 feet east of Sierra College Boulevard (measured curb-to-curb). This new access would be shared with an existing apartment building located to the west. Starlight Lane would be closed and vacated.

All Project access points would be available to Costco members. The right-in/right-out only Brace Road driveway would also serve entering warehouse delivery trucks. Warehouse deliver trucks would exit the site at the new Project signalized intersection on Sierra College Boulevard. Costco Gasoline fuel station delivery vehicles would enter and exit the Project site at the proposed new Project signalized intersection on Sierra College Boulevard.

Alternative Site Access

In addition to analyzing the traffic impacts associated with the proposed site access, study intersection traffic operations are documented in this report for two alternative site access options for comparison purposes. For ease of identification, the access options will be referenced in this report as follows:

- Project Driveway Option 1A (proposed Project site plan)
- Project Driveway Option 1B which includes:
  - A new signalized intersection along Sierra College Boulevard (same as Option 1A);
  - A right-in/right-out only driveway on Brace Road (same as Option 1A); and
  - A shared drive aisle connection to Granite Drive.
- Project Driveway Option 1C: this option includes the same access as Option 1A plus a shared drive aisle connection to Granite Drive.

Supporting Transportation Infrastructure Provided by Project

Transportation infrastructure to be constructed by Costco in conjunction with site development includes:

- Widening Sierra College Boulevard along the Project site frontage to provide three northbound travel lanes and a Class II northbound bicycle facility
- Separate northbound right-turn lanes on Sierra College Boulevard at the new signalized Costco access and at Brace Road, including overlap traffic signals at both locations
- A new Project site signalized entry on Sierra College Boulevard that is designed to accommodate a potential fourth approach to serve future development by others on the vacant lot across Sierra College Boulevard to the west as well a dedicated southbound left turn lane
- Provide traffic signal interconnect between the proposed new Costco site access signalized intersection and the adjacent intersections along Sierra College Boulevard at Brace Road and Granite Drive Dedicate right-of-way and construct standard half-street improvements along the Brace Road site frontage
- Install a raised median on Brace Road between Sierra College Boulevard and the existing Homewood Lumber driveway to the east to limit Costco access to right-turns only
- Provide a left turn pocket or stripe a two-way left turn median along Brace Road

As previously noted, Project Driveway Options 1B and 1C additionally will assume construction of a driveway access through Granite Drive. The access would provide a drive aisle connection to the anticipated future shopping center to be located on the eastern terminus of Granite Drive. With the Project driveway on Granite Drive in Options 1B and 1C, the Project would also restripe the existing northbound right-turn travel lane on Sierra College Boulevard at Granite Drive to a shared through/right lane.

1.2 SCOPE OF THE REPORT

This analysis determines the transportation-related impacts associated with the proposed Costco Warehouse and was prepared in accordance with the Town of Loomis (Town) and California Transportation Department's (Caltrans) requirements for traffic impact studies. The study intersections and scope of this Project were selected based on scoping direction from the Town of Loomis (Town) in consultation with City of Rocklin (City), Placer County (County) and Caltrans staff.

Per the Town's requirements, the study includes analysis for the following scenarios:

- Existing Conditions
- Existing plus Project Conditions
- Cumulative Baseline Conditions (Short Term and Long Term)
- Cumulative plus Project Conditions (Short Term and Long Term)

Section 2
Regulatory Setting

2.0 REGULATORY SETTING

The following section outlines State and local regulations related to transportation and traffic. Intersection performance measures reported in this study include level of service (LOS) and delay. Transportation system operations were compared to applicable significance criteria for the Town, City, County and Caltrans. The sections below summarize each of the respective agency standards as well California Environmental Quality Act standards (CEQA). LOS operating goals for each jurisdiction are applied to study locations owned by that jurisdiction.

2.1 TOWN OF LOOMIS SIGNIFICANCE CRITERIA

The Town of Loomis General Plan Circulation Element (2016) specifies minimum LOS standards for all streets and intersections within Loomis, as follows:

> Level of Service policy: In order to minimize congestion, maintain LOS C on all roads and intersections within the Town of Loomis. LOS D may be allowed in conjunction with development approved within the Town as an exception to this standard, at the intersections of King and Taylor, Horseshoe Bar Road and Taylor, Horseshoe Bar Road and I-80, and Sierra College and Brace Road, when:
>
> 1. The deficiency is substantially caused by "through" traffic, which neither begins nor ends in Loomis, and is primarily generated by non-residents; or
>
> 2. The deficiency will be temporary (less than three years), and a fully-funded plan is in place to provide the improvements needed to remedy the substandard condition.

2.2 CITY OF ROCKLIN SIGNIFICANCE CRITERIA

The City of Rocklin General Plan Circulation Element (2012) states the following:

A. Maintain a minimum traffic LOS C for all signalized intersections during the PM peak hour on an average weekday, except in the circumstances described below.

B. Recognizing that some signalized intersections within the City serve and are impacted by development located in adjacent jurisdictions, and that these impacts are outside the control of the City, a development project which is determined to result in a LOS worse than "C" may be approved, if the approving body finds (1) the diminished LOS is an interim situation which will be alleviated by the implementation of planned improvements or (2) based on the specific circumstances described in Section C. below, there are no feasible street improvements that will improve the LOS to "C" or better as set forward in the Action Plan for the Circulation Element.

C. All development in another jurisdiction outside of Rocklin's control which creates traffic impacts in Rocklin should be required to construct all mitigation necessary in order to maintain a LOS C in Rocklin unless the mitigation is determined to be infeasible by the Rocklin City Council. The standard for determining the feasibility of the mitigation would be whether or not the improvements create unusual economic, legal, social, technological, physical or other similar burdens and considerations".

2.3 PLACER COUNTY SIGNIFICANCE CRITERIA

The Placer County General Plan identifies Policies presenting significance criteria, including the following:

- Policy 3.A.7: The County shall develop and manage its roadway system to maintain the following minimum LOS.
  - LOS C on rural roadways, except within one-half mile of state highways where the standard shall be LOS D.
  - LOS C on urban/suburban roadways except within one-half mile of state highways where the standard shall be LOS D.

The County may allow exceptions to these level of service standards where it finds that the improvements or other measures required to achieve the LOS standards are unacceptable based on established criteria. In allowing any exception to the standards, the County shall consider the following factors:

- The number of hours per day that the intersection or roadway segment would operate at conditions worse than the standard.
- The ability of the required improvement to significantly reduce peak hour delay and improve traffic operations.
- The right-of-way needs and the physical impacts on surrounding properties.
- The visual aesthetics of the required improvement and its impact on community identity and character.
- Environmental impacts including air quality and noise impacts.
- Construction and right-of-way acquisition costs.
- The impacts on general safety.
- The impacts of the required construction phasing and traffic maintenance.
- The impacts on quality of life as perceived by residents.
- Consideration of other environmental, social, or economic factors on which the County may base findings to allow an exceedance of the standards.

Exceptions to the standards will only be allowed after all feasible measures and options are explored, including alternative forms of transportation.

Specific methodology is provided in the Impact Analysis Methodology of Assessment Memorandum prepared September 30th, 2015 as outlined below:

> *Signalized Intersection Assessment Methodology:*
>
> A project may be considered to exceed minimum LOS policies if;
>
> - An intersection operating at or above the established Placer County policies without the project traffic trips will decrease to an unacceptable LOS with the project; or
> - An intersection currently operating below the established acceptable LOS policy will experience an increase in overall average intersection delay of 4 seconds or greater.
>
> *Unsignalized Intersection Assessment Methodology:*
>
> A project may be considered to exceed minimum LOS policies if;
>
> - An all way stop or side street controlled intersection, which currently operates at or above the established Placer County policies without the project, will deteriorate to an unacceptable LOS with the project and cause the intersection to meet MUTCD traffic sign warrant(s); or
> - An all way stop or side street controlled intersection which currently operates below the established acceptable LOS policy and meets MUTCD signal warrant(s) will experience an increase of 2.5 seconds or more with the project.
>
> Further consideration will be given in situations where the existing level of service is just above or at the approved minimum level of service and any increase in vehicle trips, or even daily fluctuations in traffic, will deteriorate the level of service to an unacceptable level.

Based on review of Placer County roadway segment analysis in the approved Bickford Ranch EIR[1], roadway segment impacts would be considered in conjunction with intersection performance along the corridor. Specific methodology outlined in the Impact Analysis Methodology of Assessment Memorandum prepared September 30th, 2015 states:

> A project may be considered to exceed minimum LOS policies (as defined by Policy 3.A.7 as outlined above) if;
>
> - A roadway segment operating at or above the established Placer County policies without the project traffic trips will decrease to an unacceptable LOS with the project; or
> - A roadway segment currently operating below the established acceptable LOS policy will experience an increase in volume to capacity (V/C) ratio of 0.05 or greater with the project; or
> - A roadway segment currently operating below the established acceptable LOS policy will experience an increase in Average Daily Traffic (ADT) of 100 or more project generated trips, per lane.

[1] Addendum to the Bickford Ranch Specific Plan Environmental Impact Report. October 13, 2015.

2.4 CALTRANS SIGNIFICANCE CRITERIA

Per the Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002), Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D (see Appendix "C-3") on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. Based on conversations with the Town of Loomis staff, it was determined that the target LOS for State highway facilities for the purposes of this project is LOS D. If an existing State highway facility is operating at less than the appropriate target LOS (LOS D), the existing measures of effectives (MOE) should be maintained.

Caltrans staff were contacted to confirm operating requirements for study intersection assessment purposes as noted above. Caltrans District 3 Forecasting and Operations staff identified a LOS E target standard for the Sierra College Boulevard ramp terminals with I-80[2].

2.5 CEQA SIGNIFICANCE CRITERIA

Based on Appendix G of the CEQA Guidelines, the project would have a significant transportation impact if it would do the following:

- Conflict with an applicable plan, ordinance, or policy establishing measures of performance of the circulation system, taking into account all modes of transportation relevant components of the circulation system
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise materially decrease the performance or safety of such facilities
- Result in inadequate emergency access
- Substantially increase hazards due to a design feature (such as sharp curves or dangerous intersections) or incompatible uses (such as farm equipment)

[2] Source: November 14, 2018 correspondence from David Smith, Associate Transportation Planner, Transportation Planning – North, Caltrans District 3

2.6 SIGNIFICANT IMPACT

2.6.1 Intersection Delay and Level of Service

Based on direction provided by the lead jurisdiction, Town of Loomis, an intersection is considered significantly impacted as follows:

- At signalized intersections, if project trips cause intersection LOS to change from acceptable to unacceptable levels or if the intersection is already operating at unacceptable LOS, and the project trips cause the average intersection delay to increase by 5.0 seconds or more, then the impact is significant.
- At unsignalized intersections, if project trips cause intersection LOS to change from acceptable to unacceptable levels or if the intersection is already failing, and the project adds trips to the intersection exceeding 5% of the total traffic already at the intersection, then the impact is significant.

This criteria is applied to study locations within the Town of Loomis as well as for jurisdictions where an incremental delay-based impact is not established. Based on the guidelines from each jurisdiction above, Table 1 lists the study intersections, the responsible jurisdiction, and the corresponding operating standard.

Table 1: Study Intersections & Applicable Operating Standards

ID	Street Name		Jurisdiction	LOS Operating Goal	Significant Impact Threshold
	North-South	East-West			
1	Taylor Rd	King Rd	Loomis	D	LOS E/F or 5.0 seconds + added[1]
2	Taylor Rd	Horseshoe Bar Rd	Loomis	D	LOS E/F or 5.0 seconds + added [1]
3	Horseshoe Bar Rd	I-80 WB Ramp	Caltrans	D	LOS E/F or 5.0 seconds + added [1]
4	Horseshoe Bar Rd	I-80 EB Ramp	Caltrans	D	LOS E/F or 5% Project Trips
5	Barton Rd	Brace Rd	Loomis	C	LOS D/E/F or 5% Project Trips
6	Sierra College Blvd	Taylor Rd	Loomis	C	LOS D/E/F or 5.0 seconds + added [1]
7	Sierra College Blvd	Brace Rd	Loomis	D	LOS E/F or 5.0 seconds + added [1]
8	Sierra College Blvd	Granite Dr	Rocklin	C	LOS D/E/F or 5.0 seconds + added [1]
9	Sierra College Blvd	I-80 WB Ramps	Caltrans	E[2]	5.0 seconds + added [1]
10	Sierra College Blvd	I-80 EB Ramps	Caltrans	E[2]	5.0 seconds + added [1]
11	Sierra College Blvd	Schriber Way	Rocklin	C[3]	Stop control: LOS D/E/F or 5% Project[4]; Signal control: LOS D/E/F or 5.0 seconds + added [1]
12	Sierra College Blvd	Bass Pro Dr/Dominguez Rd	Rocklin	C	LOS D/E/F or 5.0 seconds + added [1]
13	Sierra College Blvd	Stadium Dwy	Rocklin	C	LOS D/E/F or 5.0 seconds + added [1]
14	Sierra College Blvd	Rocklin Rd	Rocklin	C	LOS D/E/F or 5.0 seconds + added [1]
15	Pacific St	Dominguez Rd/Delmar Ave	Rocklin	C	LOS D/E/F or 5.0 seconds + added [1]
16	Pacific St	Rocklin Rd	Rocklin	C	LOS D/E/F or 5.0 seconds + added [1]
17	Granite Dr	Rocklin Rd	Rocklin	C	LOS D/E/F or 5.0 seconds + added [1]
18	I-80 WB Ramps	Rocklin Rd	Caltrans	D	LOS E/F or 5.0 seconds + added [1]
19	I-80 EB Ramps	Rocklin Rd	Caltrans	D	LOS E/F or 5.0 seconds + added [1]
20	Aguilar Rd	Rocklin Rd	Rocklin	C	LOS D/E/F or 5.0 seconds + added [1]
21	Sierra College Blvd	Office Dwy S of Brace Rd	Loomis	C	LOS D/E/F or 5% Project Trips
22	Granite Dr	Dominguez Rd	Rocklin	C[3]	Stop control: LOS D/E/F or 5% Project[4]; Signal control: LOS D/E/F or 5.0 seconds + added [1]
23	El Don Rd	Rocklin Rd	Rocklin	C	LOS D/E/F or 5.0 seconds added
24	Sierra College Blvd	Site Access	Loomis	C	LOS D/E/F or 5.0 seconds + added [1]
25	Project Driveway	Brace Rd	Loomis	C	LOS D/E/F or 5% Project Trips[4]
26	Sierra College Blvd	SR-193	Placer	D[3]	Stop control: LOS E/F or 2.5 seconds added & meets warrants[6] Signal control: LOS E/F or 4.0 seconds added[5]
27	Sierra College Blvd	English Colony Way	Placer	C[3]	Stop control: LOS D/E/F or 2.5 seconds added & meets warrants[6] Signal control: LOS E/F or 4.0 seconds added[5]
28	Sierra College Blvd	Delmar Avenue	Placer	C	LOS D/E/F or 2.5 seconds added & meets warrants[6]
29	Taylor Rd	English Colony Way	Placer	C[3]	Stop control: LOS D/E/F or 2.5 seconds added & meets warrants[6] Signal control: LOS E/F or 4.0 seconds added[5]
30	Taylor Rd	Penryn Road (North)	Placer	C	LOS D/E/F or 2.5 seconds added & meets warrants[6]
31	Taylor Rd	Penryn Road (South)	Placer	C	LOS D/E/F or 2.5 seconds added & meets warrants[6]
32	Taylor Rd	Del Oro High School North Lot	Loomis	C	LOS D/E/F or 5% Project Trips
33	Taylor Rd	Del Oro High School Drop-Off	Loomis	C	LOS D/E/F or 5% Project Trips
34	Taylor Rd	Del Oro High School South Lot	Loomis	C	LOS D/E/F or 5% Project Trips
35	Taylor Rd	Rippey Road	Loomis	C	LOS D/E/F or 5% Project Trips
36	Taylor Rd	Webb Street	Loomis	C	LOS D/E/F or 5% Project Trips
37	Project Driveway East	Brace Rd	Loomis	C	LOS D/E/F or 5% Project Trips[4]

Notes:

[1] For signalized intersections, impact is significant if the Project increases delay to unacceptable levels from acceptable levels. Impact is significant in situations when the intersection is already operating at unacceptable LOS and the Project trips cause the average intersection delay to increase by 5.0 seconds or more.

[2]Caltrans direction for acceptable LOS of E at this location.

[3]For existing roadway network configuration the intersection was stop controlled; however, under future conditions the intersection would become signalized and therefore would be evaluated with the signalized intersection threshold.

[4]For unsignalized intersections, impact is significant if the Project increases delay to unacceptable levels from acceptable levels. Impact is significant in situations when the intersection is already operating at unacceptable LOS and the Project adds trips to the intersection exceeding 5% of the total traffic already at the intersection.

[5] For signalized intersections, impact is significant if the Project increases delay to unacceptable levels from acceptable levels. Impact is significant in situations when the intersection is already operating at unacceptable LOS and the Project trips cause the average intersection delay to increase by 4.0 seconds or more.

[6]For unsignalized intersections, impact is significant if the Project increases delay to unacceptable levels from acceptable levels and meets MUTCD signal warrants. Impact is significant in situations when the intersection is already operating at unacceptable LOS, meets MUTCD signal warrants, and the Project trips cause the average intersection delay to increase by 2.5 seconds or more.

2.6.2 Intersection Queuing

The Town and neighboring jurisdictions do not have formally-adopted guidelines on queuing analysis methodology or criterion that establishes thresholds of significance for vehicle queues at intersections. For the purposes of this study, a vehicle queue that overflows the available storage for a turn pocket blocking the adjacent travel lane or that queues to an upstream signal blocking through traffic is considered a potential safety hazard and would be considered a significant impact. Therefore, this study identifies a significant impact as occurring at locations where the project traffic would cause the queue length for a turn pocket to overflow its available storage compared to no project conditions or cause a queue to spillback into an upstream signalized intersection. Further, in cases, where the no project queue already overflows the queue storage and the project would contribute 5% of the total traffic for the movement, the impact would be considered significant.

Section 3
Methods of Evaluation

3.0 METHODS OF EVALUATION

The efficiency of traffic operations at a location is measured in terms of vehicular LOS. LOS is the primary unit of measurement for documenting the operating quality of a highway, roadway, or intersection. In general, LOS is measured by the traffic volume-to-capacity (V/C) ratio or by the average delay experienced by vehicles on the facility.

The Highway Capacity Manual 2010 (HCM 2010) (Transportation Research Board, 2010) analysis methodology, as approved by the Town, was applied to all study area intersections as described below. The HCM 2010 is a widely referenced source for the techniques to measure transportation facility performance. Using the HCM 2010 procedures, the quality of traffic operation is graded into one of six LOS designations: A, B, C, D, E, or F, with A representing excellent (free-flow) conditions and F representing extreme congestion. LOS is measured during the course of one peak hour at intersections and on a daily basis on roadway segments.

3.1 LEVEL OF SERVICE METHODOLOGY

At intersections, LOS is defined based on the delay experienced per vehicle. The LOS methodology for signalized intersections accounts for several variables including, but not limited to, the effects of signal type, timing, phasing and progression on average delay. Table 2 defines average delay per vehicle and LOS for signalized intersections.

Table 2: LOS and Average Vehicular Delay Definition for Signalized Intersections

LOS	Delay per Vehicle (seconds)	Definition
A	≤10	LOS A describes operations with a control delay of 10 s/veh or less. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
B	>10 and ≤20	LOS B describes operations with control delay between 10 and 20 s/veh. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.
C	>20 and ≤35	LOS C describes operations with control delay between 20 and 35 s/veh. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
D	>35 and ≤55	LOS D describes operations with control delay between 35 and 55 s/veh. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.
E	>55 and ≤80	LOS E describes operations with control delay between 55 and 80 s/veh. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.
F	>80	LOS F describes operations with control delay exceeding 80 s/veh. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: Highway Capacity Manual 2010 Exhibit 18-4
s/veh: seconds of delay per vehicle

Unsignalized intersections include two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections. The LOS for an AWSC intersection is defined by delay for the intersection as a whole, whereas, for a TWSC intersection, LOS is based on the delay for the worst operating movement. Table 3 lists the LOS and delay parameters for unsignalized intersections.

Table 3: LOS and Average Vehicular Delay Definition for Unsignalized Intersections

LOS	Delay per Vehicle (seconds)
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

Source: Highway Capacity Manual 2010 Exhibit 19-1

Placer County Road Segment Criteria

The Placer County General Plan identifies roadway segment-based traffic volume and LOS evaluation criteria as shown in Table 4.

Table 4: Placer County Evaluation Criteria for Roadway Segment LOS

Roadway Capacity Class	Maximum Daily Traffic Volume Per Lane Levels of Services				
	A	B	C	D	E
Arterial – Moderate Access Control	5,400	6,300	7,200	8,100	9,000

Source: Placer County General Plan Table 4-17 for relevant classifications for County roadways analyzed in this study.

3.2 QUEUING METHODOLOGY

Queues were evaluated at study intersections using the Synchro 9 software and 95th percentile queue lengths were reported to identify locations where the queues may exceed the available storage capacity (queues may be longer during five percent of the peak hour traffic signal cycles). The 95th percentile queue is typically used in traffic engineering as a conservative measure of reporting queuing and because it only has a 5-percent probability of being exceeded, the average driver would likely experience shorter queue lengths than the reported value. As such, the analysis is considered conservative given the reported queues would be less than those experienced by the average driver. Average queues can be found on the Synchro output sheets provided in the appendix.

In addition to assessing queuing with Synchro, queuing along the Sierra College Boulevard corridor was also simulated as discussed further in Section 3.4 of this report.

3.3 FREEWAY MAINLINE

For mainline segments, LOS is measured in terms of density as shown in Table 5 below. Density describes the proximity to other vehicles and is related to the freedom to maneuver within the traffic stream.

Table 5: Level of Service and Density Definition for Basic Freeway Segments

LOS	Density (passenger cars/mile/lane)
A	≤11
B	>11 and ≤18
C	>18 and ≤26
D	>26 and ≤35
E	>35 and ≤45
F	>45 (demand exceeds capacity)

Source: Highway Capacity Manual 2010 Exhibit 11-5

3.4 SUPPLEMENTAL EVALUATIONS

While not required, supplemental analysis is provided per the request of the City and Caltrans to provided additional information as documented below.

3.4.1 Supplemental Simulation Evaluation

A microsimulation analysis was conducted using the SimTraffic software for the Sierra College Boulevard corridor from Taylor Road to Dominguez Road/Bass Pro Drive per Town direction[3]. The analysis was prepared for Existing and Long Term Conditions as requested by the lead agency. The purpose of this microsimulation analysis was to supplement the Synchro analysis.

Neither the lead agency, the Town of Loomis, the City, nor Caltrans have adopted methodology or significance criteria for the simulation evaluation. Therefore, these analyses are not used to evaluate Project impacts and are shown for informational purposes only.

For the purposes of this analysis, seed time was set to 10 minutes and the simulation was recorded for 60 minutes per typical industry practice (seed time represents the time used to load vehicles to the road network prior to measuring performance during the simulation). A total of five simulation runs were prepared for each analysis scenario and the results of all five runs were averaged to obtain the results presented below. The results of each individual run were reviewed to confirm that none of the runs were major outliers that would result in an inaccurate average. Qualitative assessment of simulated existing

[3] The study corridor was extended to include Stadium Way to the south to meter traffic flow into the roadway network.

conditions queueing confirmed that the operating conditions shown in the simulation model represented observed existing field conditions.

3.4.2 Ramp Metering Evaluation

Caltrans requested ramp metering analysis to determine whether future queues from the proposed ramp meter at the I-80 Westbound slip ramp from southbound Sierra College Boulevard would exceed storage and affect operations along the arterial. Ramp metering is currently installed but not activated at the study location. Caltrans was not able to provide ramp metering rates; therefore, a minimum metering rate of 240 vehicles per hour[4] was used as the base rate and adjusted if queues exceeded the available storage capacity of the ramp of approximately 1,200 feet.

The Caltrans Ramp Metering Design Manual (Caltrans, April 2016) arrival discharge chart was used as the basis for a spreadsheet analysis tool to evaluate queues associated with the proposed ramp meter. The ramp metering analysis spreadsheets are set up for three hours of arrival data; however, data is only available for a two-hour period. An adjustment was made to the arrival volumes for the first hour based on the arrival patterns for the two-hour period available data. Additionally, the ramp lanes, an average vehicle length, and the ramp storage length are input for each ramp. Because one of the two southbound to westbound freeway ramp lanes is designed for high occupancy vehicles (HOV) and arrival volumes cannot be differentiated, the assumed lane capacity was reduced to 1.5 lanes in the analysis (the HOV is not metered, however, for this evaluation all vehicles are processed through the meter in 1.5 lanes).

[4] Per Caltrans Ramp Metering Design Manual arrival discharge chart

Section 4
Existing Conditions

4.0 EXISTING CONDITIONS

The existing conditions analysis identifies the site conditions and current operational and geometric characteristics of the roadways within the study area. These conditions are compared with future conditions later in this report.

Kittelson & Associates, Inc. (KAI) staff visited and inventoried the proposed development site and surrounding study area, most recently in September 2018. At that time, KAI collected information regarding site conditions, adjacent land uses, existing traffic operations, and transportation facilities in the study area.

4.1 SITE CONDITIONS AND ADJACENT LAND USES

The proposed site is within the Town of Loomis, is currently vacant, and is zoned for commercial development. The site is bordered by Sierra College Boulevard to the west and Brace Road to the north. Land uses in the vicinity of the site include residential homes to the north and east, a mix of vacant and developed commercial land to the south, and a mix of vacant land and office space to the west across Sierra College Boulevard.

4.2 TRANSPORTATION FACILITIES

This report section provides an overview of the existing transportation facilities serving the study area. Figure 2 outlines the study intersection locations.

4.2.1 Highway/Roadway Facilities

An overview of key roadway facilities in the study area is provided below.

I-80 – I-80 is an east-west freeway that provides regional access to and through the Project study area. Interchanges along I-80 near the Project site are provided at Rocklin Road, Sierra College Boulevard, and Horseshoe Bar Road. In the study area, I-80 provides three travel lanes in each direction.

Sierra College Boulevard – Sierra College Boulevard is a north-south roadway providing primary access to the Project site. This roadway is classified as an Arterial with an ultimate six-lane cross-section south of Taylor Road in both the Town of Loomis and City of Rocklin General Plan Circulation Elements. Within the study area, Sierra College Boulevard varies from two lanes to a four to five-lane roadway; however, segments near the I-80 ramps are provided with additional travel lanes.

Granite Drive – Granite Drive is a four-lane southwest-northeast roadway located west of I-80. Granite Drive is classified as an arterial in the City of Rocklin's General Plan Circulation Element. Granite Drive connects from Rocklin Road to the south and extends through the Sierra College Boulevard intersection to terminate just east of this roadway.

Lincoln Newcastle Hwy
Sierra College Blvd
English Colony Way
Taylor Rd
Brace Rd
King Rd
Horseshoe Bar Rd
Delmar Ave
Sierra College Blvd
Pacific St
Dominguez Rd
Granite Dr
Barton Rd
College Blvd
Sierra
Rocklin Rd
80
SITE
N

- Study Intersections

Study Area Network
Loomis, California

Figure
1

KITTELSON & ASSOCIATES

Taylor Road - Taylor Road is a major arterial street that runs parallel to I-80. Taylor Road is generally a two-lane road through Loomis, but incremental half section widening has occurred in conjunction with private development frontage improvements in some areas.

Horseshoe Bar Road - This arterial street originates at an intersection on Taylor Road in downtown Loomis and continues east past the Project site to an interchange on I-80. Beyond I-80, Horseshoe Bar Road continues for several miles into the rural area of Placer County near Folsom Lake. Horseshoe Bar Road is a two-lane road with auxiliary left turn lanes at major intersections.

Brace Road - Brace Road is a minor street that begins at Taylor Road and continues east over I-80. Brace Road is a two-lane road providing secondary access to the Project site.

4.2.2 Pedestrian and Bicycle Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signals, curb ramps, and streetscape amenities. In general, a network of sidewalks, crosswalks, pedestrian signals, and curb ramps are provided in the vicinity of the proposed Project site; however, significant sidewalk gaps were noted in the study area. Sidewalks are partially provided on Sierra College Boulevard, King Road, Taylor Road, and Horseshoe Bar Road. Crosswalks are provided at all signalized intersections and at a number of other unsignalized locations.

Bicycle paths, lanes and routes are typical examples of bicycle transportation facilities, which are defined by Caltrans as being in one of the following three classes:

Class I – Provides a completely separated facility designed for the exclusive use of bicyclists and pedestrians with crossing points minimized.

Class II – Provides a restricted right-of-way designated lane for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists permitted.

Class III – Provides a route designated by signs or permanent markings and shared with pedestrians and motorists.

The Town of Loomis developed the 2010 Bicycle Transportation Plan (Figure 2) and the 2010 Trails Master Plan (Figure 3) in an effort to provide the long term framework to improve and encourage the enhancement of the local and regional bikeway and pedestrian network. The existing bicycle system consists of a series of Class I (Multi-Use Paths) and Class II (Bike Lanes).

A Class I bike trail exists on the southeast side of Taylor Road between King Road and Del Oro High School. Also, a Class I bike trail exists on the northwest side of Taylor Road between Circle Drive and Sierra College Boulevard, but lacks connectivity to downtown Loomis. A short portion of King Road east of Bankhead Road also features a Class I bike trail. Class II bike lanes are provided at the following locations:

- Sierra College Boulevard between Granite Drive and Del Mar Avenue,
- Taylor Road between Sierra College Boulevard and Oak Street,
- Taylor Road between Oak Street and Webb Street on the south side only, and
- King Road between Sierra College Boulevard and I-80.

In the study area, the following Class II bike lanes are provided within the City of Rocklin:

- Granite Drive between Sierra College Boulevard and Rocklin Road,
- Rocklin Road from Sierra College Boulevard to I-80 Northbound on/off ramp, and from I-80 Southbound on/off ramp to 5th Street, and
- Pacific Street between Sierra Meadows Drive and E Midas Avenue.

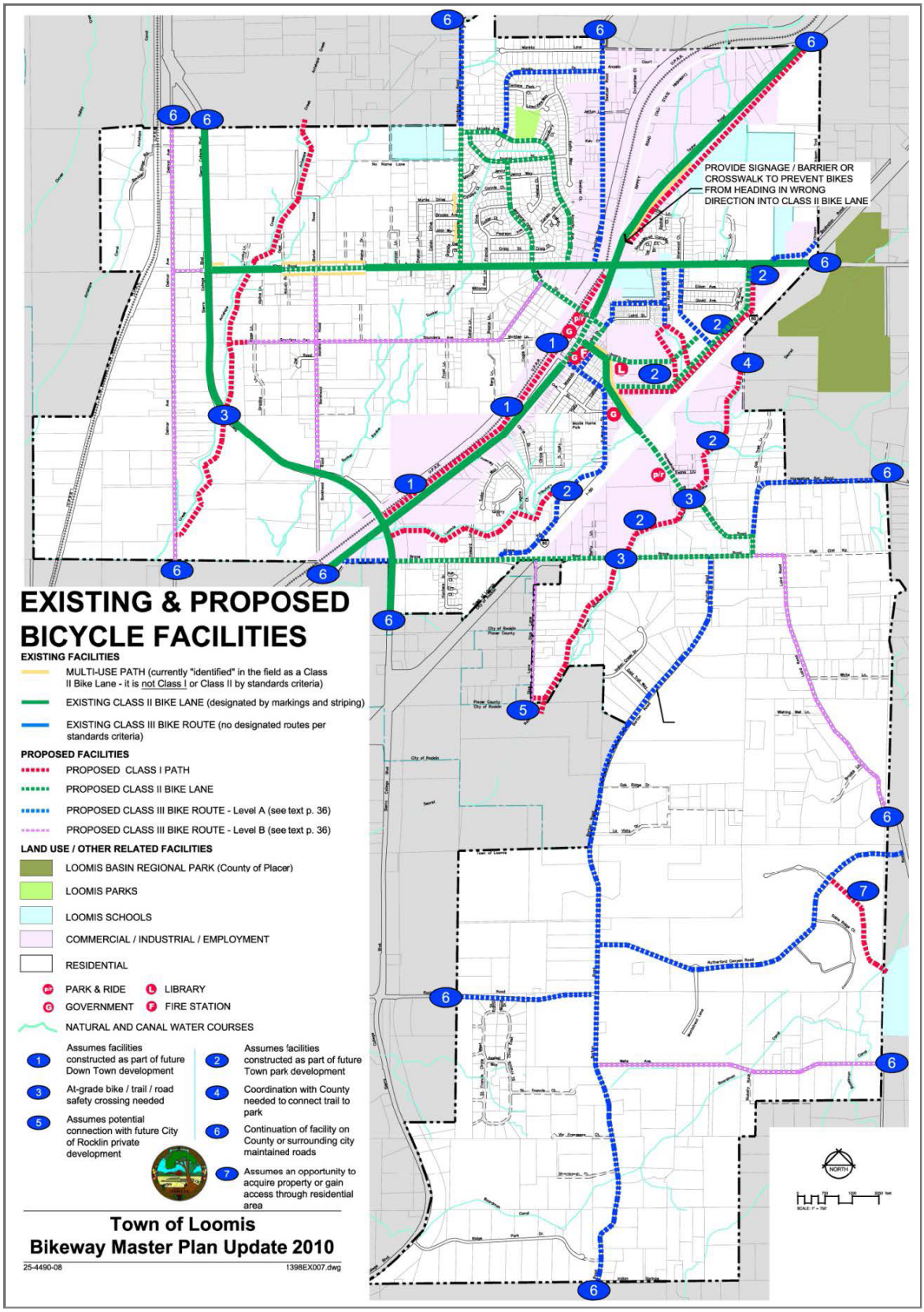


Figure 2: 2010 Bicycle Transportation Plan

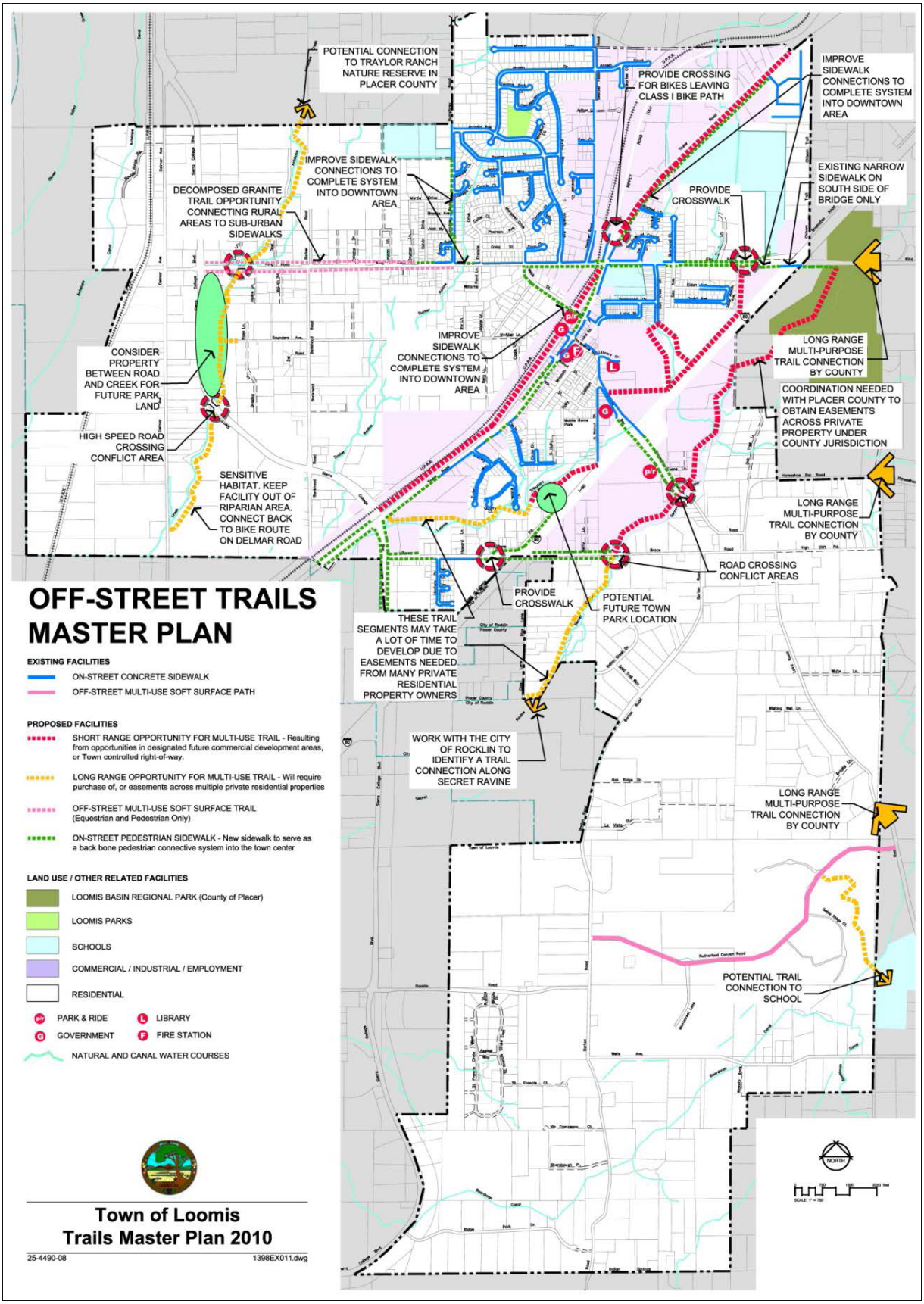


Figure 3: 2010 Trails Master Plan

4.2.3 Transit Facilities

Bus transit service in the Project area is provided by Placer County Transit. Placer County Transit operates local bus routes from Monday to Saturday, with three routes operating in the Project study area. The Auburn to Light Rail Bus Route operates on one hour headways during the morning and afternoon commute periods and stops at the Sierra College Transfer Center. The Lincoln/Sierra College Bus Route operates on one hour headways between Sierra Community College and the City of Lincoln. The Taylor Road Shuttle operates with two hour headways during the morning and afternoon commute periods and travels between Auburn and the Sierra College Transfer center. The Taylor Road Shuttle provides the nearest service to the Project site along Sierra College Boulevard.

4.3 INTERSECTION OPERATIONS

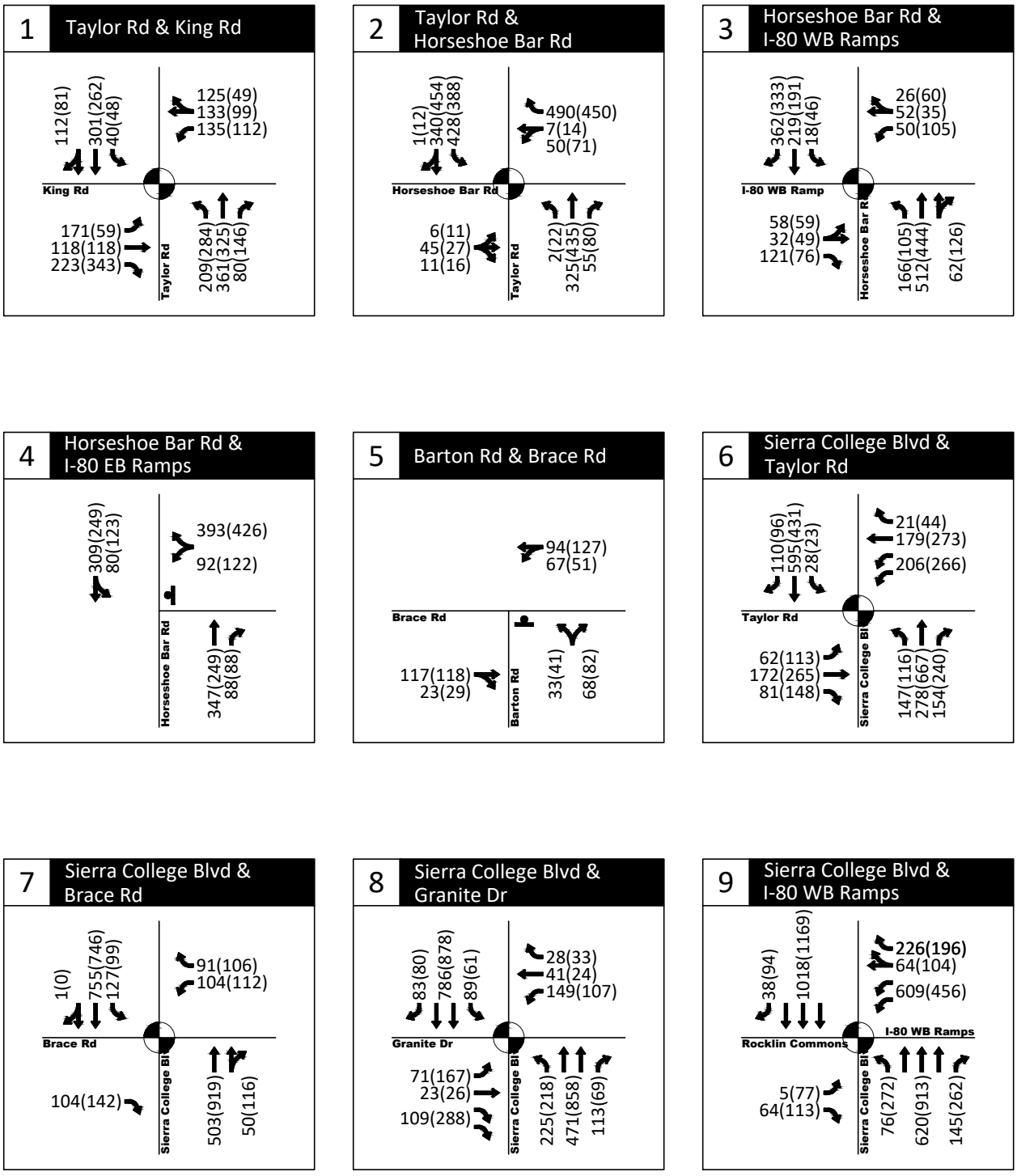
Turning-movement counts were obtained at each of the existing study intersections.

The traffic count dates vary by intersection location. All of the Placer County maintained study intersections were counted in October 2018. The remaining weekday peak hour counts were conducted in November 2016 with two exceptions. Traffic counts at the Granite Drive & Dominguez Road and Rocklin Road & El Don Drive intersections (collected in April 2016) were provided by the City of Rocklin because these locations were added after the Project scoping process was completed. The counts were conducted on a typical weekday during the morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak time periods. Figure 4 provides a summary of the weekday peak hour turning-movement counts, which represent the hour with the highest volumes in the counting periods. Counts represent Project year 2017 baseline conditions consistent with the date of the notice of preparation (NOP), excluding the County study intersections that were counted in the fall of 2018[5].

In January 2017, manual turning-movement counts were obtained during Saturday for each of the non-County study intersections except for Granite Drive & Dominguez Road and Rocklin Road & El Don Drive (again because these locations were added after the Project scoping process was completed). Counts were conducted on a typical weekend during the midday (11:00 AM to 1:00 PM) peak time period. Counts at Granite Drive & Dominguez Road and Rocklin Road & El Don Drive were conducted in September 2017. Figure 5 provides a summary of the weekend turning-movement peak hour counts, which represent the hour with the highest volumes in the counting periods. Appendix "A" contains the traffic count worksheets used in this study. Counts were balanced between closely spaced intersections and between different data collection dates, as needed.

Existing signal timing at each of the signalized intersections was obtained from the jurisdiction operating the respective intersection and was used for to conduct the analysis for existing conditions.

[5] Use of the 2017 baseline traffic counts in this report is appropriate recognizing 1) review traffic volumes at key locations on the Sierra College Boulevard corridor found comparable volumes between 2017 and 2018, 2) the cumulative short-term analyses were developed accounting for all identified approved in-process developments as of the time of the counts in 2017, and 3) the cumulative long-term conditions analysis was developed based on long-term travel demand model volumes.



AM(PM) - Weekday Traffic Volume

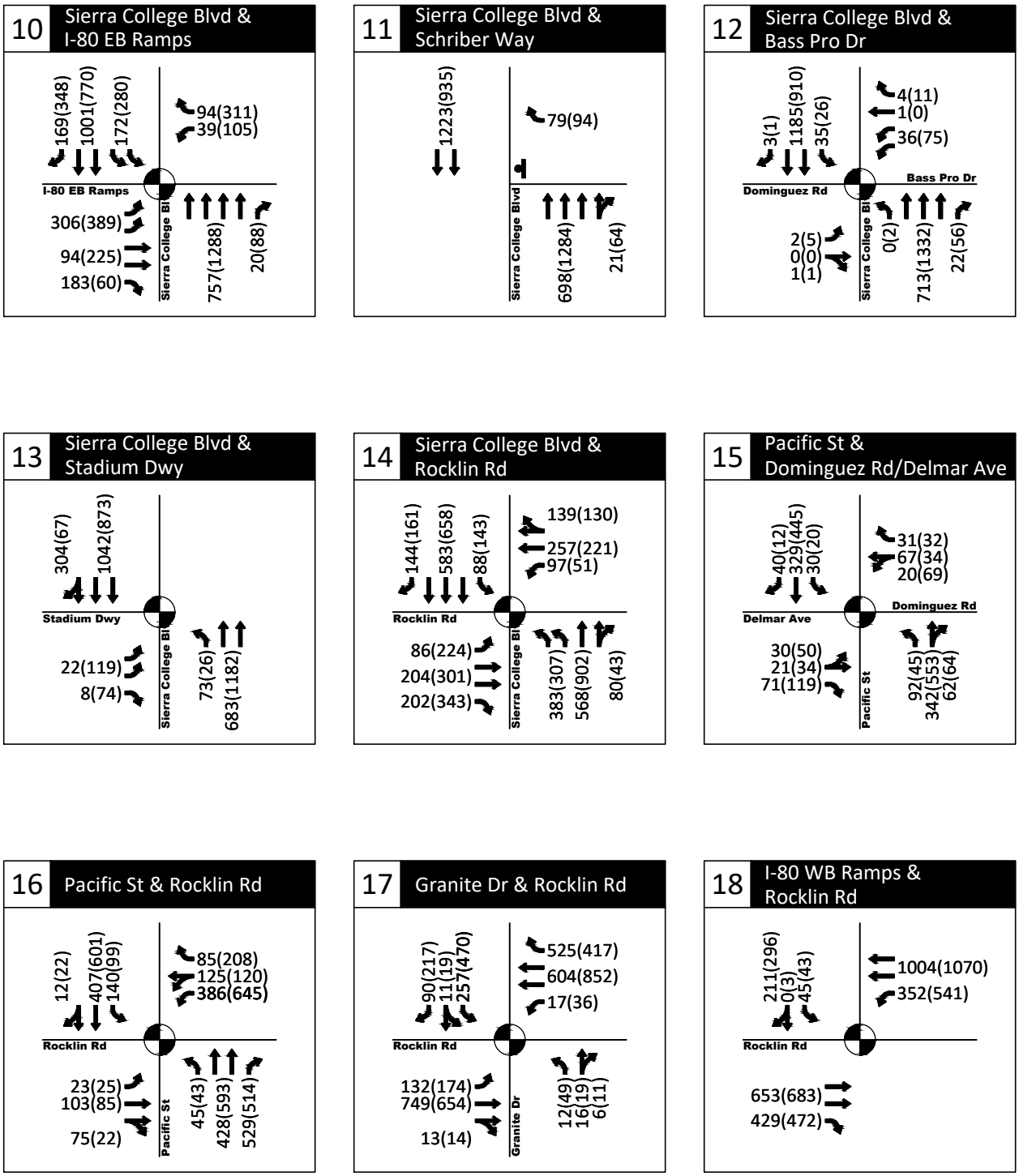
- Stop Sign

- Traffic Signal

Existing Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
4A

KITTELSON & ASSOCIATES



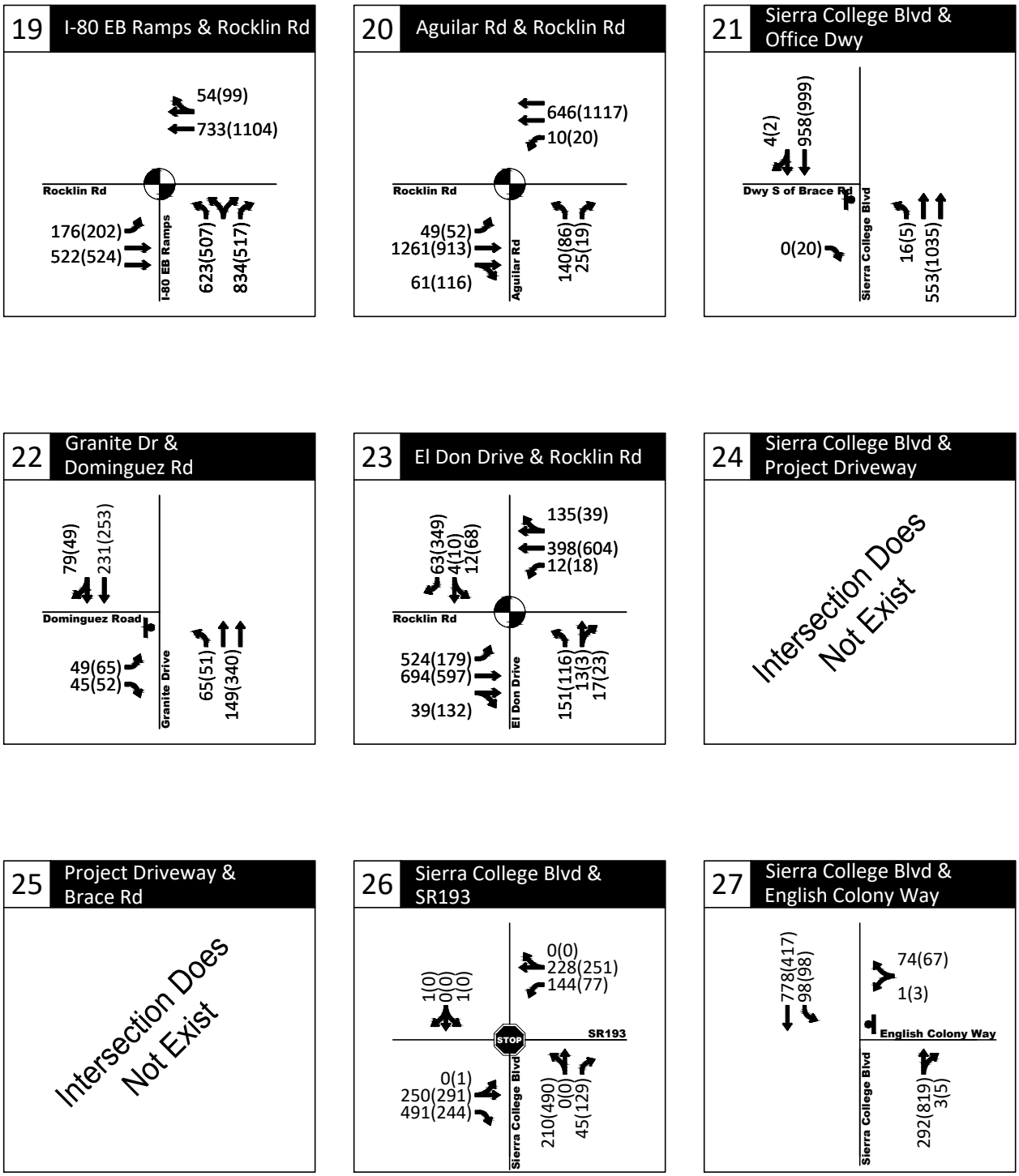
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
4B



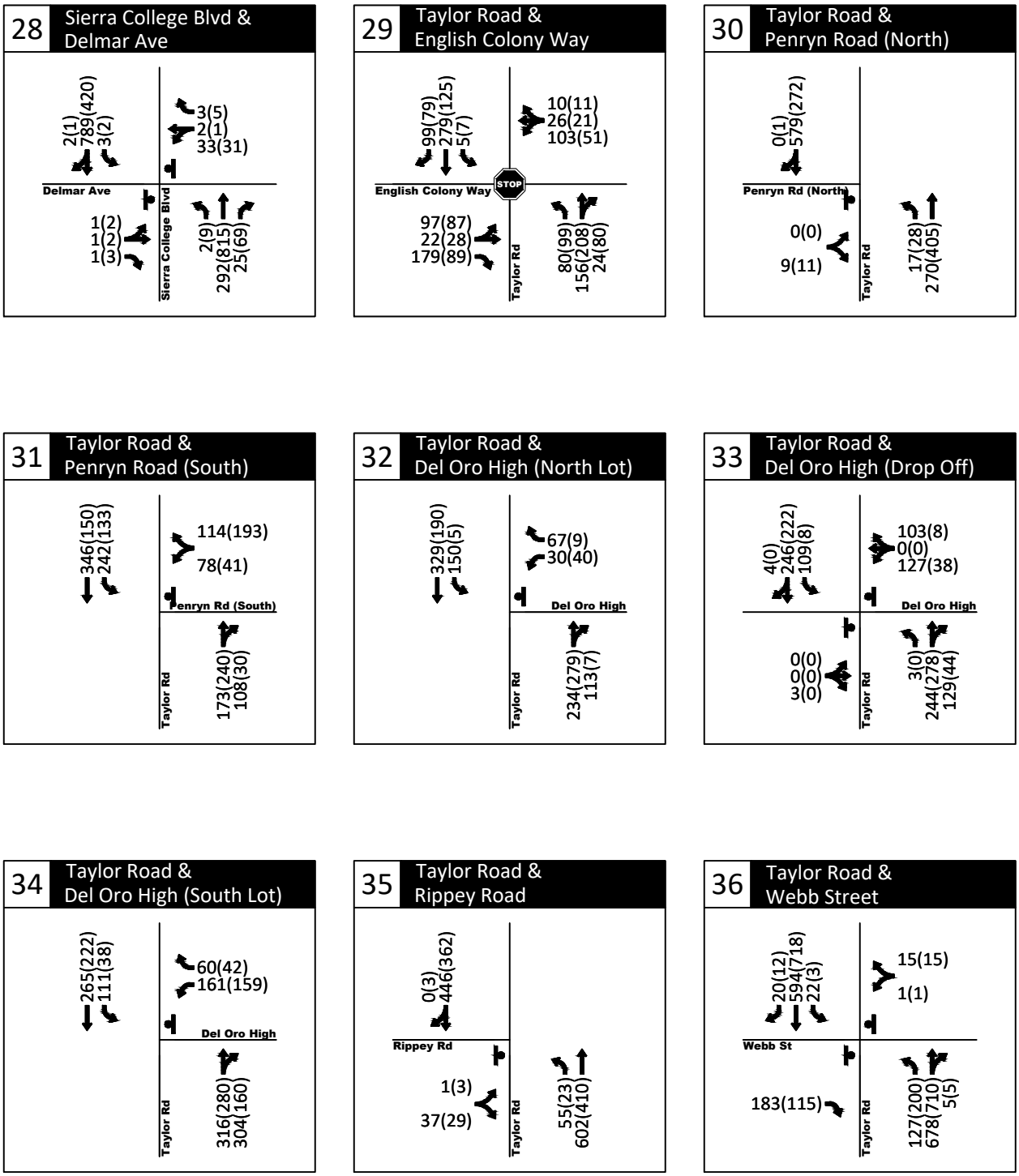
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
4C



AM(PM) - Weekday Traffic Volume

- Stop Sign

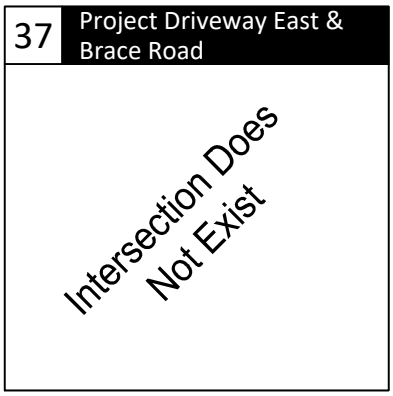
- Traffic Signal

Existing Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
4D

H:\20\20345 - Confidential Loomis Costco\dwgs\figs\20345_Fig02_20190703 - Option A.dwg Oct 22, 2019 - 1:53pm - aloveday Layout Tab: Ex AM_PM D

KITTELSON & ASSOCIATES



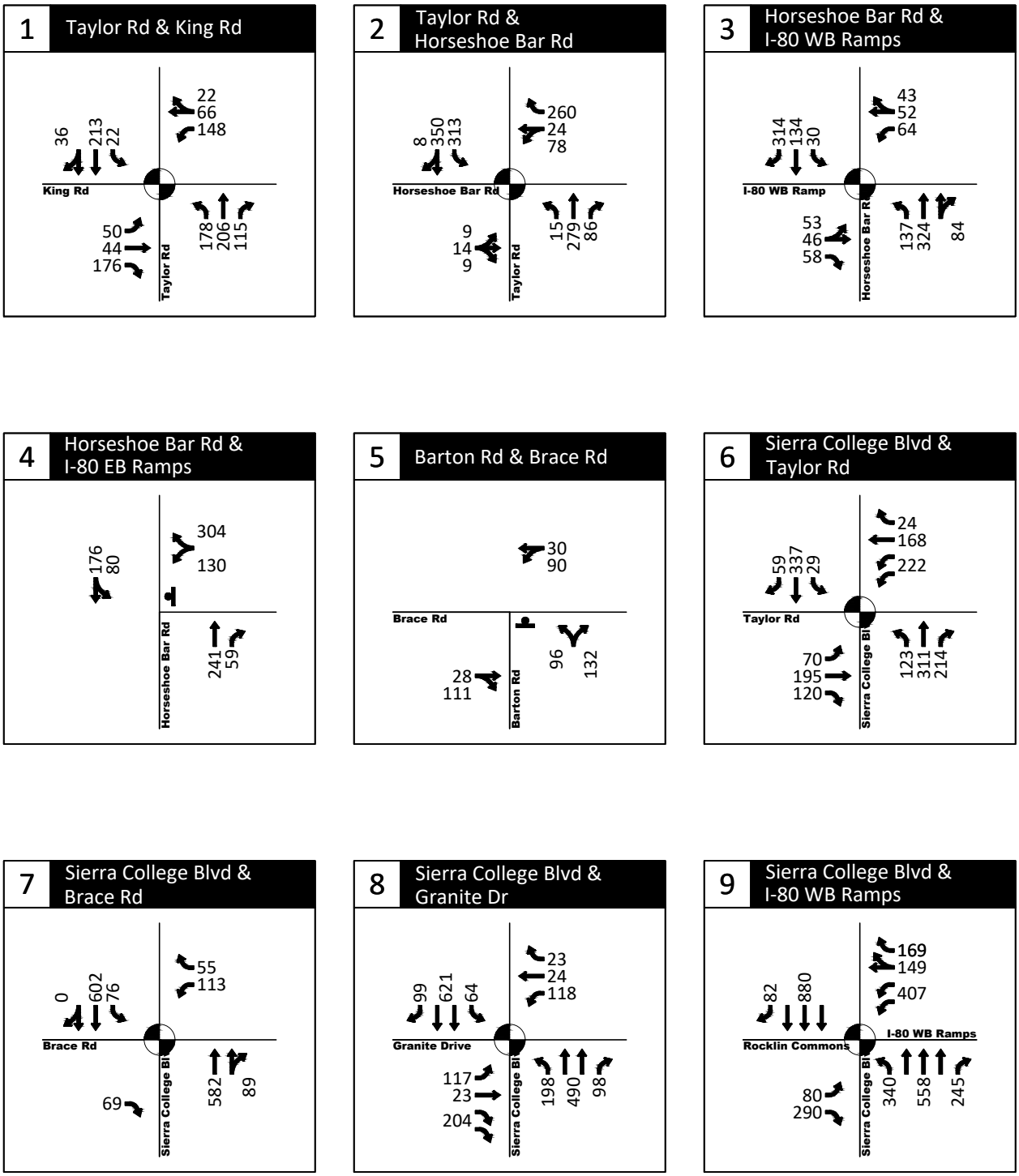
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
4E



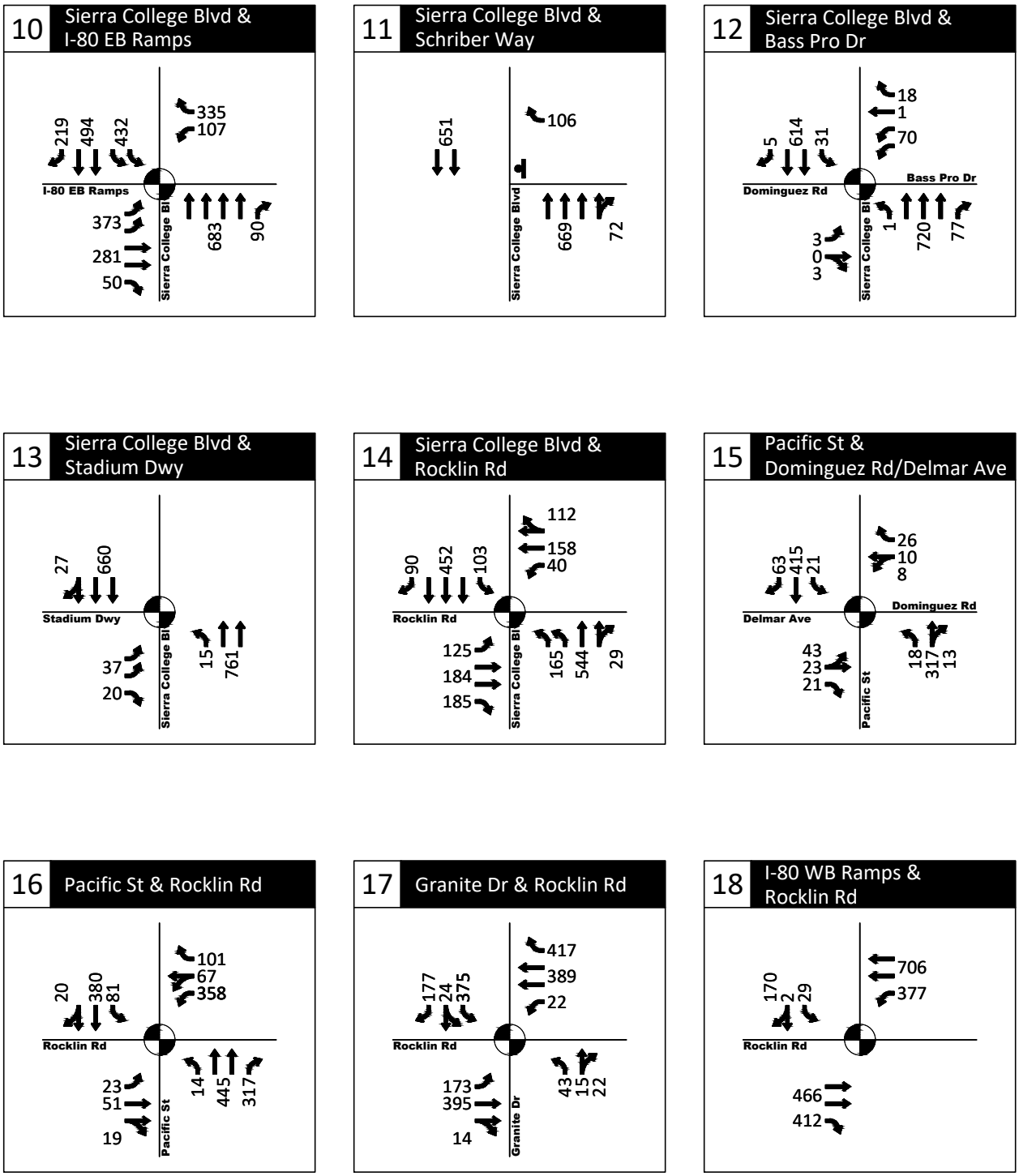
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
5A



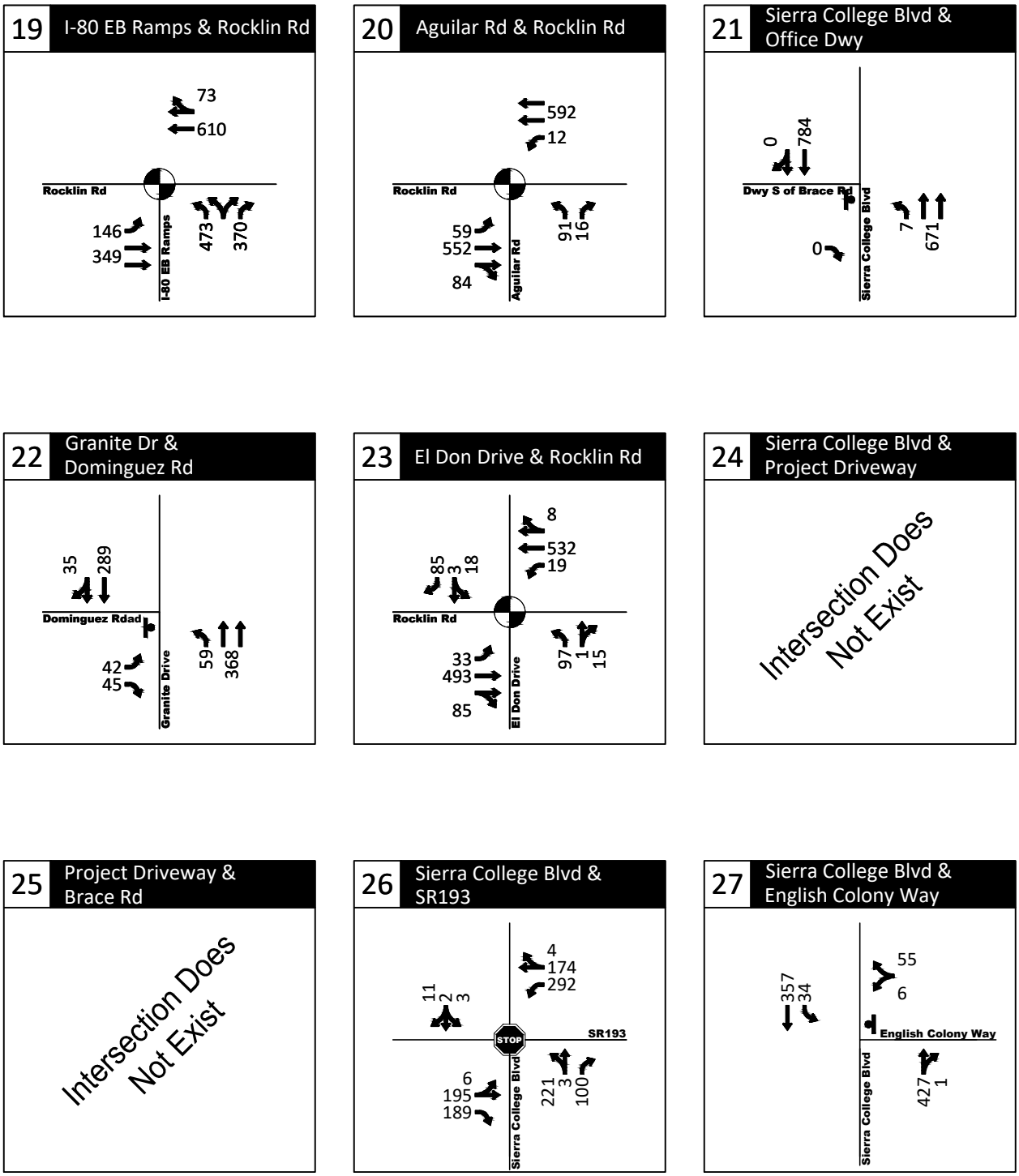
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
5B



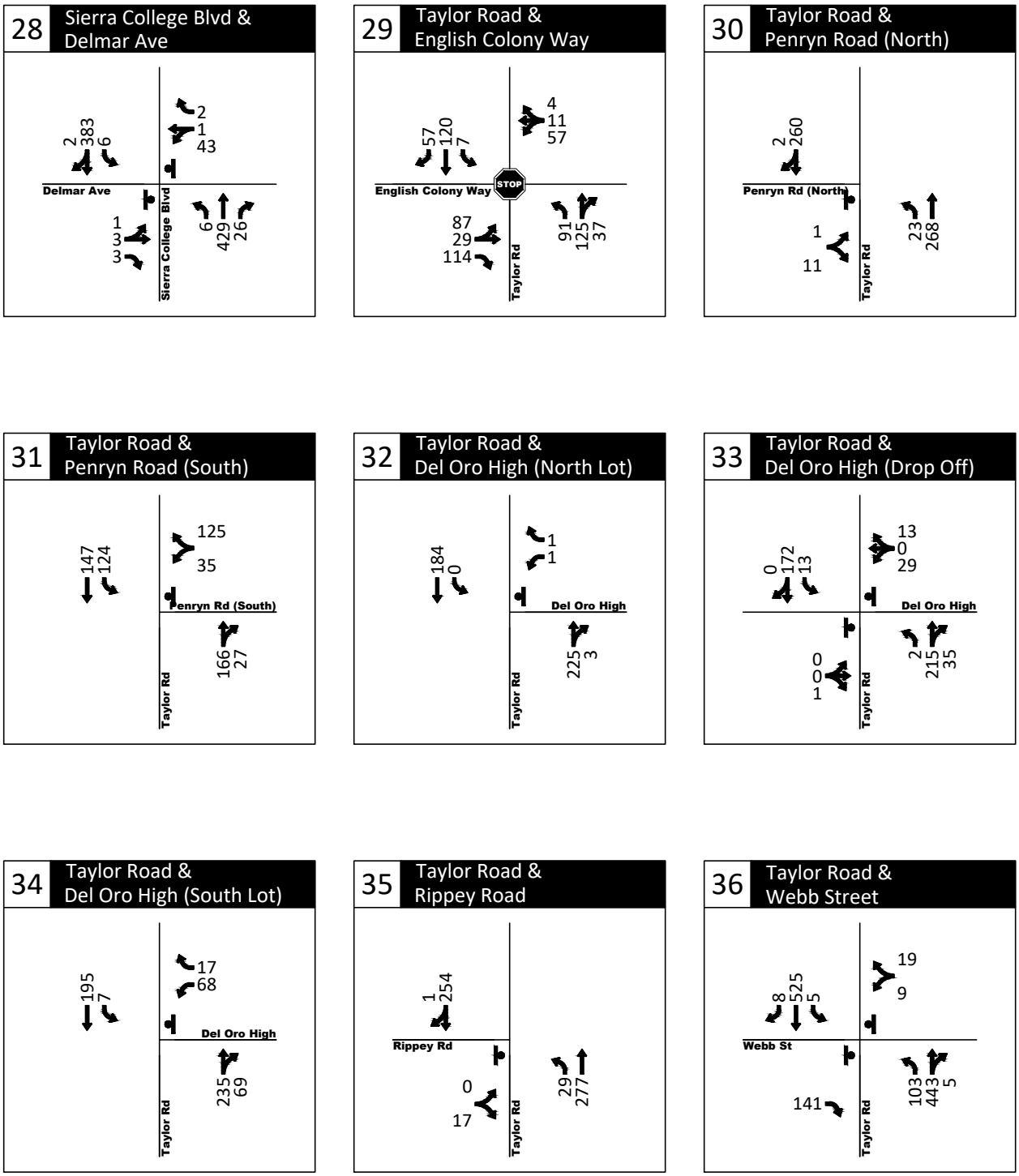
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
5C



- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
5D

KITTELSON & ASSOCIATES

- Weekend Midday Traffic Volume
- Stop Sign
- Traffic Signal

Existing Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
5E

KITTELSON & ASSOCIATES

4.3.1 Levels of Service Analysis

LOS analysis was performed for the AM and PM peak hours during weekday, and midday peak hour during weekend, using existing turning movement volumes. Table 6 summarizes the level-of-service analysis for the study intersections under existing traffic conditions. As shown, the following intersections operate at an unsatisfactory LOS:

- Horseshoe Bar Road & I-80 Eastbound Ramp (AM, PM)
- Sierra College Boulevard & Taylor Road (PM)
- Sierra College Boulevard & Rocklin Road (AM and PM)
- Pacific Street & Dominguez Road/Delmar Avenue (PM)
- Pacific Street & Rocklin Road (AM)
- Granite Drive & Rocklin Road (AM, PM, and MD)
- El Don Drive & Rocklin Road (AM and PM)
- Sierra College Boulevard & SR-193 (PM)
- Sierra College Boulevard & Delmar Avenue (AM and PM)
- Taylor Road & Penryn Road (South) (AM)
- Taylor Road & Del Oro High School North Lot (AM)
- Taylor Road & Del Oro High School Drop Off (AM)
- Taylor Road & Del Oro High School South Lot (AM)
- Taylor Road & Webb Street (PM and MD)

Appendix "B" includes the level-of-service worksheets.

Table 6: Existing Conditions Intersection LOS Analysis, Weekday AM/PM & Weekend Midday Peak Hours

ID	Intersection	Intersection Control Type	Weekday AM		Weekday PM		Weekend MD	
			Delay	LOS	Delay	LOS	Delay	LOS
1	Taylor Rd/King Rd	Signal	33.3	C	37.7	D	21.8	C
2	Taylor Rd/Horseshoe Bar Rd	Signal	30.3	C	26.3	C	13.9	B
3	Horseshoe Bar Rd/I-80 Westbound Ramp	Signal	13.8	B	14.0	B	13.4	B
4	Horseshoe Bar Rd/I-80 Eastbound Ramp	TWSC	**70.2**	**F**	**68.2**	**F**	28.7	D
5	Barton Rd/Brace Rd	TWSC	10.8	B	10.7	B	12.2	B
6	Sierra College Blvd/Taylor Rd	Signal	31.8	C	**38.3**	**D**	25.0	C
7	Sierra College Blvd/Brace Rd	Signal	9.7	A	10.7	B	9.1	A
8	Sierra College Blvd/Granite Dr	Signal	24.4	C	27.1	C	22.6	C

ID	Intersection	Intersection Control Type	Weekday AM		Weekday PM		Weekend MD	
			Delay	LOS	Delay	LOS	Delay	LOS
9	Sierra College Blvd/I-80 WB Ramps	Signal	13.2	B	19.0	B	19.3	B
10	Sierra College Blvd/I-80 EB Ramps	Signal	14.6	B	16.1	B	16.5	B
11	Sierra College Blvd/Schriber Way	TWSC	9.2	A	9.2	A	10.3	B
12	Sierra College Blvd/Bass Pro Dr-Dominguez Rd	Signal	6.5	A	7.5	A	8.7	A
13	Sierra College Blvd/Stadium Dwy	Signal	6.1	A	6.6	A	4.4	A
14	Sierra College Blvd/Rocklin Rd	Signal	**35.7**	**D**	**43.3**	**D**	24.9	C
15	Pacific St/Dominguez Rd-Delmar Ave	Signal	15.4	B	**43.7**	**D**	12.7	B
16	Pacific St/Rocklin Rd	Signal	**39.9**	**D**	33.7	C	19.6	B
17	Granite Dr/Rocklin Rd	Signal	**40.7**	**D**	**50.8**	**D**	**43.7**	**D**
18	I-80 Westbound Ramps/Rocklin Rd	Signal	20.4	C	38.8	D	20.6	C
19	I-80 Eastbound Ramps/Rocklin Rd	Signal	31.0	C	30.3	C	24.6	C
20	Aguilar Rd/Rocklin Rd	Signal	10.4	B	8.1	A	8.0	A
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.3	A	12.6	B	0.1	A
22	Granite Dr/Dominguez Rd	TWSC	11.7	B	12.8	B	12.5	B
23	El Don Dr/Rocklin Rd	Signal	**35.8**	**D**	**34.9**	**D**	13.7	B
26	Sierra College Blvd/SR-193	AWSC	22.5	C	**43.1**	**E**	19.7	C
27	Sierra College Blvd/English Colony Way	TWSC	11.0	B	19.8	C	12.2	B
28	Sierra College Blvd/Delmar Avenue	TWSC	**38.0**	**E**	**41.4**	**E**	22.2	C
29	Taylor Rd/English Colony Way	AWSC	21.4	C	13.2	B	15.4	C
30	Taylor Rd/Penryn Road (North)	TWSC	14.4	B	10.0	B	10.2	B
31	Taylor Rd/Penryn Road (South)	TWSC	**233.5**	**F**	15.5	C	12.0	B
32	Taylor Rd/Del Oro High School North Lot	TWSC	**31.9**	**D**	12.0	B	13.5	B
33	Taylor Rd/Del Oro High School Drop-Off	TWSC	**265.0**	**F**	14.1	B	19.4	C
34	Taylor Rd/Del Oro High School South Lot	TWSC	**40.9**	**E**	15.7	C	16.1	C
35	Taylor Rd/Rippey Road	TWSC	13.9	B	11.3	B	11.6	B
36	Taylor Rd/Webb Street	TWSC	21.4	C	**26.8**	**D**	**70.2**	**F**

Notes:
AWSC: All-way stop control – The average intersection delay is reported.
TWSC: Two-way stop control - The delay is reported for the worst movement.
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.
Source: Kittelson & Associates, Inc. 2019

4.3.2 Queuing Analysis

The queueing analysis below follows the significance criteria and queueing methodology defined in Sections 2 and 3. Appendix C provides the summary tables for the weekday AM, PM, and weekend midday peak hours as well as the storage lengths at each intersection.

As shown in the summary tables, the 95th percentile queues would extend beyond the available storage lengths at the following intersections:

- Taylor Road & King Road (AM, PM, and MD)
- Taylor Road & Horseshoe Bar Road (AM, PM, and MD)
- Horseshoe Bar Road & I-80 Westbound Ramp (AM, PM, and MD)
- Sierra College Boulevard & Taylor Road (PM)
- Sierra College Boulevard & Brace Road (PM)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- Sierra College Boulevard & I-80 WB Ramps (PM and MD)
- Sierra College Boulevard & Rocklin Road (AM and PM)
- Pacific Street & Rocklin Road (AM, PM, and MD)
- Granite Drive & Rocklin Road (AM, PM, and MD)
- I-80 Westbound Ramps & Rocklin Road (PM)
- I-80 Eastbound Ramps & Rocklin Road (AM and PM)
- El Don Drive & Rocklin Road (AM and PM)
- Taylor Road & English Colony Way (AM and MD)
- Taylor Road & Del Oro High School Drop Off (AM)
- Taylor Road & Del Oro High School South Lot (AM)

In addition, the queues reported at the above locations would affect operations at the upstream locations as shown:

- The northbound through at Sierra College Boulevard & Taylor Road would affect operations at Sierra College Boulevard & Brace Road (PM)
- The southbound through at Sierra College Boulevard & I-80 WB Ramps would affect operations at Sierra College Boulevard & Granite Drive (PM)
- The westbound through at I-80 Eastbound Ramps & Rocklin Road would affect operations at Aguilar Road & Rocklin Road (PM)

4.3.3 Simulation Supplemental Evaluation

The evaluation was prepared for informational purposes. The total network performance results of the simulation runs are presented in Table 7 and the arterial performance results are presented in Table 8.

As shown, all vehicles are able to access (zero vehicles denied entry) the network during the AM and midday study peak hours and only one vehicle was denied access during the PM peak hour. Review of the SimTraffic output files also showed that the Synchro queueing analysis captured queueing impacts shown in SimTraffic. SimTraffic does show longer queues for certain movements; however, both Synchro and SimTraffic queues exceed storage capacity, and therefore the impact would be captured per the significance criteria.

For the Sierra College Boulevard corridor, the posted speed limit along the majority of the corridor is 40 miles per hour and the approximate length of the corridor from Taylor Road to Stadium Way is 1.5 miles. Under free flow conditions and without stop delay at controlled intersections, the travel time along the corridor would be about 135 seconds. Total travel time reported includes delay associated with stops at controlled intersections as well as some congestion along the corridor. The average arterial speed also shows that the corridor is operating under posted signed limits; however, this again includes delay associated with controlled intersections.

Table 7: Existing Conditions – Simulation Total Network Performance Results

Peak Hour	Total Delay/Vehicle (s)	Vehicles Entered	Vehicles Exited	Vehicles Denied Entry
AM	46.8	5,333	5,325	0
PM	54.7	7,131	7,125	1
MD	40.0	5,795	5,797	0

Notes:
(s): seconds
Total Delay/Vehicle: Total delay is equal to the travel time minus the travel time for a vehicle with no other vehicles or control devices. This delay is divided by the number of vehicles to obtain the total delay per vehicle.

Vehicles Entered/Exited: Represents the number of vehicles counted entering and exiting the link or area during the interval. This value does not include vehicles moving from one intersection to the next with the arterial or network.

Vehicles Denied Entry: This value represents the number of vehicles unable to enter a link due to congestion and are waiting to enter. These vehicles can either be from an external link or from a mid-block source.

Source: Kittelson & Associates, Inc. 2019

Table 8: Existing Conditions – Simulation Sierra College Boulevard Arterial Performance Results

Segment	Peak Hour	Direction	Total Delay (s)	Total Travel Time (s)	Average Arterial Speed (mph)
Sierra College Boulevard between Taylor Road & Stadium Way	AM	Northbound	70.8	191.0	28
		Southbound	137.9	326.1	25
	PM	Northbound	138.2	257.2	21
		Southbound	123.9	309.8	26
	MD	Northbound	85.8	205.4	26
		Southbound	100.1	286.0	29

Notes:
(s): seconds
Total Delay: Total Delay for the average vehicle traveling the length of the corridor including stopped delay and congestion delay.
Total Travel Time: Time in seconds for the average vehicle to travel the length of the corridor.
Average Arterial Speed: Average speed of the average vehicle traveling the length of the corridor.
Source: Kittelson & Associates, Inc. 2019

The detailed network and arterial performance output sheets are presented in Appendix "D".

4.4 PLACER COUNTY ROADWAY OPERATIONS

Following consultation with Placer County staff, five County roadway segments were analyzed. Analysis for the study segments was conducted using the LOS criteria defined as noted in Section 3.1. Table 9 outlines the existing roadway volume and associated level of service for the study segments. As shown, all study segments currently satisfy the County's LOS C standard.

Table 9: Existing Conditions – Placer County Weekday ADT Roadway Segment LOS Analysis

Roadway	Segment	Number of Lanes	ADT	LOS
Sierra College Boulevard	SR-193 to English Colony Way	2	8,290	A
	English Colony Way to Delmar Ave	2	11,120	B
	Delmar Ave to Loomis Town Limits	2	11,120	B
SR-193	Lincoln City Limits to Sierra College Boulevard	2	10,360	A
	Sierra College Boulevard to Clark Tunnel Road	2	7,200	A

Notes:
ADT volumes sourced from Bickford Ranch Specific Plan EIR Addendum (October 2015) and adjusted based on City of Rocklin Travel Demand Model Growth Rates.
Source: Kittelson & Associates, Inc. 2019

4.5 FREEWAY FACILITIES OPERATIONS

Following consultation with Caltrans District 3 staff, freeway mainline analysis was prepared for the I-80 mainline segments east and west of the Sierra College Boulevard interchange. The Caltrans Performance Measurement System (PeMS) was queried for mainline traffic during the intersection data collection period; however, limited data was available due to Caltrans equipment issues (poor detector health). Additional time periods were queried for the year outside of the weeks of intersection data collection all of which showed poor detector health until Fall 2017. The Caltrans freeway data quality improved in September 2017; therefore, for the following analysis, data was collected between September 19th and October 21st of 2017 for each Tuesday, Wednesday, Thursday for weekday conditions and for each Saturday for weekend conditions. Peak hour factors were calculated from ramp volume data sourced from intersection counts.

4.5.1 Freeway Mainline Basic Segment Analysis

Analysis for the study segments was conducted using the Highway Capacity Software 2010 (HCS 2010). Table 10 outlines the existing mainline volume, density and associated level of service for the study segments. As shown, all study segment operations satisfy the applicable Caltrans LOS D standard.

Appendix "E" includes the freeway mainline level-of-service worksheets.

Table 10: Existing Conditions – I-80 Mainline LOS Analysis, Weekday AM/PM Peak Hour

ID	Segment	Direction	Number of Lanes	Weekday AM			Weekday PM			Weekend MD		
				Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS
1	I-80 east of Sierra College Boulevard	Eastbound	3	3,110	19.0	C	4,398	25.8	C	3,980	22.5	C
		Westbound	3	4,062	25.4	C	3,803	22.5	C	3,892	21.5	C
2	I-80 west of Sierra College Boulevard	Eastbound	3	3,118	19.1	C	4,042	23.4	C	3,963	22.4	C
		Westbound	3	3,702	22.9	C	3,716	22.0	C	3,812	21.1	C

Notes:
Density: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

4.5.2 Ramp Metering Supplemental Evaluation

Ramp metering analysis was requested by Caltrans to determine whether queues from the future ramp meter at the I-80 Westbound slip ramp from southbound Sierra College Boulevard would exceed storage and affect operations along the arterial. While documented later in this report for future conditions, no ramp metering assessment was prepared for existing conditions because the ramp meter had not been activated at the time of data collection.

Section 5
Project Characteristics

5.0 PROJECT CHARACTERISTICS

5.1 PROJECT DESCRIPTION

The Project proposes an approximately 155,000 square foot Costco Warehouse with a tire center and a Costco Gasoline fuel station. The Costco Gasoline fuel station is expected to open with 24 fueling positions and is designed to expand to 30 fueling positions. To capture all the potential impacts, the traffic analysis presented in this report assumes all 30 fueling positions are in service. The approximately 17.4-acre site would provide 778 parking stalls including 16 accessible parking stalls. The proposed site plan exceeds the Town's minimum parking requirement of five stalls per thousand square feet (775 spaces). Opening is anticipated in 2020.

5.1.1 Site Driveway Access

Figure 6 illustrates the proposed development plan. Three Project Driveway Options are proposed as follows:

Project Driveway Option 1A:

- An unsignalized right-in/right-out only on Brace Road located approximately 215 feet east of Sierra College Boulevard (measured from Sierra College Boulevard curb to west curb of access)
  - The driveway will be open to the public and serve entering warehouse delivery trucks.
  - A raised median will be installed on Brace Road to limit the proposed west Costco driveway to right-turns only. The median will be installed between Sierra College Boulevard and the existing Homewood Lumber access on the north side of Brace Road. The median will maintain the existing eastbound left turn pocket on Brace Road that provides access to Homewood Lumber (no change to Homewood Lumber access) and will also maintain the existing queue storage for the westbound left turn at Sierra College Boulevard.
- A new signalized intersection along Sierra College Boulevard located approximately 750 feet south of Brace Road and 625 feet north of Granite Drive (measured centerline to centerline)
  - The proposed new intersection will include a northbound right-turn lane with right-turn signal overlap, one eastbound (entry) lane to the Costco site and three westbound (exit) lanes (interim dual left-turns and a separate right-turn).
  - The new intersection will be designed to accommodate a potential fourth approach (west leg) to serve potential future development on the vacant lot to the west.
- An unsignalized full access on Brace Road located approximately 675 feet east of Sierra College Boulevard (measured from Sierra College Boulevard curb to west curb of access). This new access would be shared with an existing apartment building located to the west. Starlight Lane would be closed and vacated.

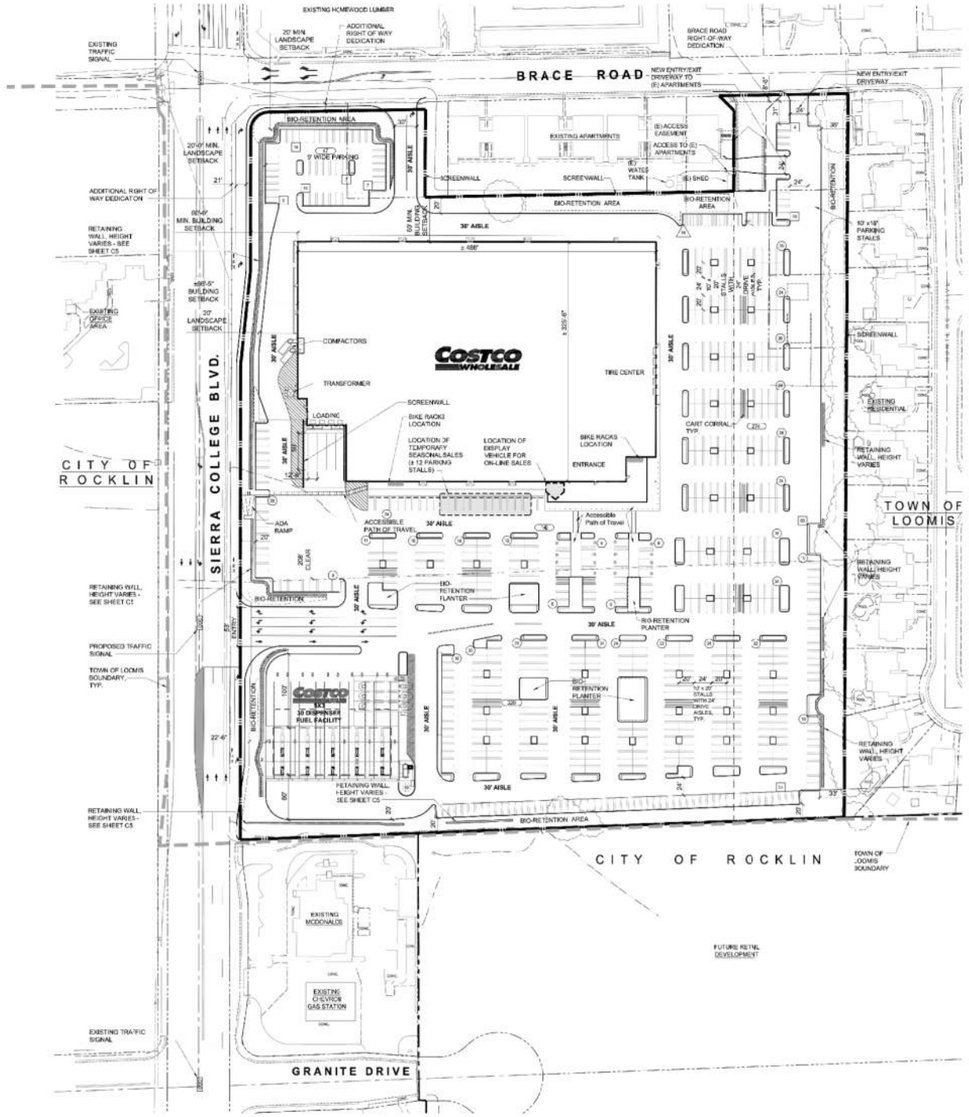
Project Driveway Option 1B:

- An unsignalized right-in/right-out only on Brace Road located approximately 215 feet east of Sierra College Boulevard (measured from Sierra College Boulevard curb to west curb of access)
  - The driveway will be open to the public and serve entering warehouse delivery trucks.
  - A raised median will be installed on Brace Road between Sierra College Boulevard and the existing driveway to the east to limit Costco access to right-turns only to maintain access to land use on the north side of the street and not impact the queue storage for the westbound left turn at Sierra College Boulevard.
- A new signalized intersection along Sierra College Boulevard located approximately 750 feet south of Brace Road and 625 feet north of Granite Drive (measured centerline to centerline)
  - The proposed new intersection will include a northbound right-turn lane with right-turn signal overlap, one eastbound (entry) lane to the Costco site and three westbound (exit) lanes (interim dual left-turns and a separate right-turn).
  - The new intersection will be designed to accommodate a potential fourth approach (west leg) to serve potential future development on the vacant lot to the west.
- A roadway connection between the south side of the Costco site and Granite Drive
  - The north-south drive aisle connection to Granite Drive will be located approximately 165 feet east of the existing private driveway access on the north side of Granite Drive serving McDonald's and Chevron (distance measured from east curb existing driveway to west curb of proposed of north-south drive aisle).
  - Granite Drive will be modified between Sierra College Boulevard and the new north-south Costco connection to provide side-by-side eastbound and westbound left-turn lanes separated by a new raised median on Granite Drive.

Project Driveway Option 1C:

- An unsignalized right-in/right-out only on Brace Road located approximately 215 feet east of Sierra College Boulevard (measured from Sierra College Boulevard curb to west curb of access)
  - The driveway will be open to the public and serve entering warehouse delivery trucks.
  - A raised median will be installed on Brace Road between Sierra College Boulevard and the existing driveway to the east to limit Costco access to right-turns only to maintain access to land use on the north side of the street and not impact the queue storage for the westbound left turn at Sierra College Boulevard.
- An unsignalized full access on Brace Road located approximately 675 feet east of Sierra College Boulevard (measured from Sierra College Boulevard curb to west curb of access). This new access would be shared with an existing apartment building located to the west. Starlight Lane would be closed and vacated.

- A new signalized intersection along Sierra College Boulevard located approximately 750 feet south of Brace Road and 625 feet north of Granite Drive (measured centerline to centerline)
  - The proposed new intersection will include a northbound right-turn lane with right-turn signal overlap, one eastbound (entry) lane to the Costco site and three westbound (exit) lanes (interim dual left-turns and a separate right-turn).
  - The new intersection will be designed to accommodate a potential fourth approach (west leg) to serve potential future development on the vacant lot to the west.
- A roadway connection between the south side of the Costco site and Granite Drive
  - The north-south drive aisle connection to Granite Drive will be located approximately 165 feet east of the existing private driveway access on the north side of Granite Drive serving McDonald's and Chevron (distance measured from east curb existing driveway to west curb of proposed of north-south drive aisle).
  - Granite Drive will be modified between Sierra College Boulevard and the new north-south Costco connection to provide side-by-side eastbound and westbound left-turn lanes separated by a new raised median on Granite Drive.



Project Data	
Client:	Costco Wholesale 999 Lake Drive Issaquah, WA 98027
Project Address:	Sierra College Boulevard Loomis, CA Town of Loomis

Site Data	
Costco Site Area: Right of Way Dedication	17.31 AC (754,042 s.f.) 0.50 AC (22,148 s.f.)
Jurisdiction:	Town of Loomis, CA
Existing Zoning:	GC - General Commercial / RM 5 - Medium Density Residential
Boundary Information:	This plan has been prepared using the Topographic Survey dated October 2016 prepared by Kier & Wright Civil Engineers & Surveyors, Inc.

Building Data	
Total:	± 153, 000 s.f.

Parking Data	
9' wide stalls:	176 stalls
10' wide stalls:	589 stalls
Accessible stalls:	16 stalls
Total Parking:	781 stalls (5.1 / 1,000)
5' wide Motorcycle stalls:	16 stalls
Parking Required: (Town of Loomis)	765 5.0 / 1,000

Vicinity Map
Scale: N.T.S.

COSTCO WHOLESALE
DBA # P256

DB+A
DAVID BABCOCK + ASSOCIATES ARCHITECTURE, PLANNING, ANALYSIS
3581 MT. DIABLO BLVD., SUITE 235
LAFAYETTE, CALIFORNIA 94549
T: 925.283.3076

COSTCO LOOMIS, CA

CONCEPT SITE PLAN - OPTION 1A

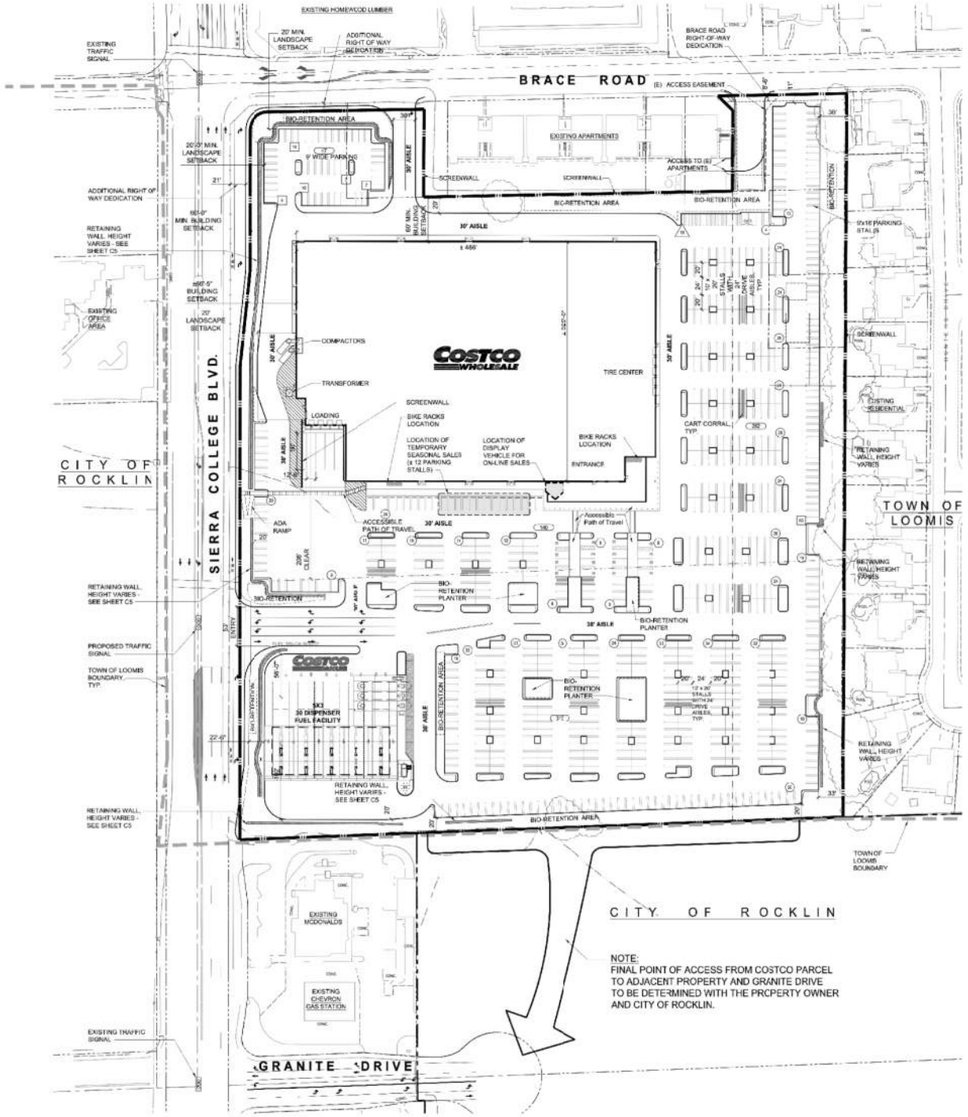
SCALE: 1"=60'-0"
OCTOBER 14, 2019

SHEET 1 of 1

Project Site Plan
Project Driveway Option 1A
Loomis, California

Figure 6A

KITTELSON & ASSOCIATES



Project Data

Client:	Costco Wholesale 999 Lake Drive Issaquah, WA 98027
Project Address:	Sierra College Boulevard Loomis, CA Town of Loomis

Site Data

Costco Site Area: Right of Way Dedication	17.31 AC (754,042 s.f.) 0.50 AC (22,148 s.f.)
Jurisdiction:	Town of Loomis, CA
Existing Zoning:	GC - General Commercial / RM 5 - Medium Density Residential
Boundary Information:	This plan has been prepared using the Topographic Survey dated October 2016 prepared by Kier & Wright Civil Engineers & Surveyors, Inc.

Building Data

Total:	153, 000 s.f.

Parking Data

9' wide stalls:	110 stalls
10' wide stalls:	658 stalls
Accessible stalls:	16 stalls
Total Parking:	784 stalls (5.1 / 1,000)
5' wide Motorcycle stalls:	16 stalls

Parking Required: (Town of Loomis)	765 5.0 / 1,000

Vicinity Map
Scale: N.T.S.

COSTCO WHOLESALE
DBA # P256

DB+A
DAVID BABCOCK + ASSOCIATES
ARCHITECTURE Planning Landscape
2981 MT. DIABLO BLVD., SUITE 225
LAFAYETTE, CALIFORNIA 94549
T. 925.283.5070

COSTCO LOOMIS, CA

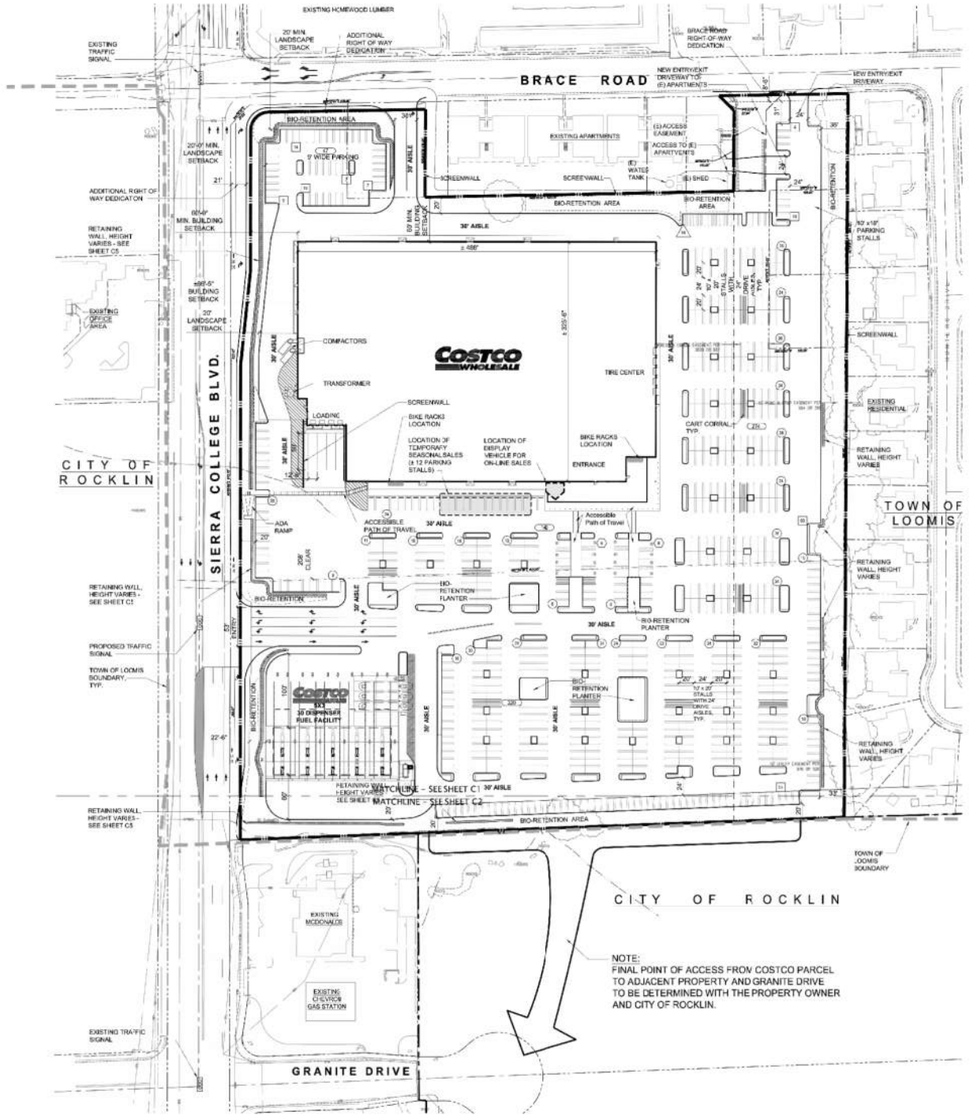
CONCEPT SITE PLAN - OPTION 1B

SCALE: 1"=60'-0"
OCTOBER 14, 2019

SHEET 1 of 1

Project Site Plan
Project Driveway Option 1B
Loomis, California

Figure 6B



Project Data

Client:	Costco Wholesale 999 Lake Drive Issaquah, WA 98027
Project Address:	Sierra College Boulevard Loomis, CA Town of Loomis

Site Data

Costco Site Area: Right of Way Dedication	17.31 AC (754,042 s.f.) 0.50 AC (22,148 s.f.)
Jurisdiction:	Town of Loomis, CA
Existing Zoning:	GC - General Commercial / RM 5 - Medium Density Residential
Boundary Information:	This plan has been prepared using the Topographic Survey dated October 2016 prepared by Kier & Wright Civil Engineers & Surveyors, Inc.

Building Data

Total:	± 153, 000 s.f.

Parking Data

9' wide stalls:	176 stalls
10' wide stalls:	589 stalls
Accessible stalls:	16 stalls
Total Parking:	781 stalls (5.1 / 1,000)
5' wide Motorcycle stalls:	16 stalls
Parking Required: (Town of Loomis)	765 5.0 / 1,000

Vicinity Map
Scale: N.T.S.

COSTCO WHOLESALE
DBA # P256

DB+A
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3581 MT. DIABLO BLVD., SUITE 235
LAFAYETTE, CALIFORNIA 94549
T: 925.283.3076

COSTCO LOOMIS, CA

CONCEPT SITE PLAN - OPTION 1C

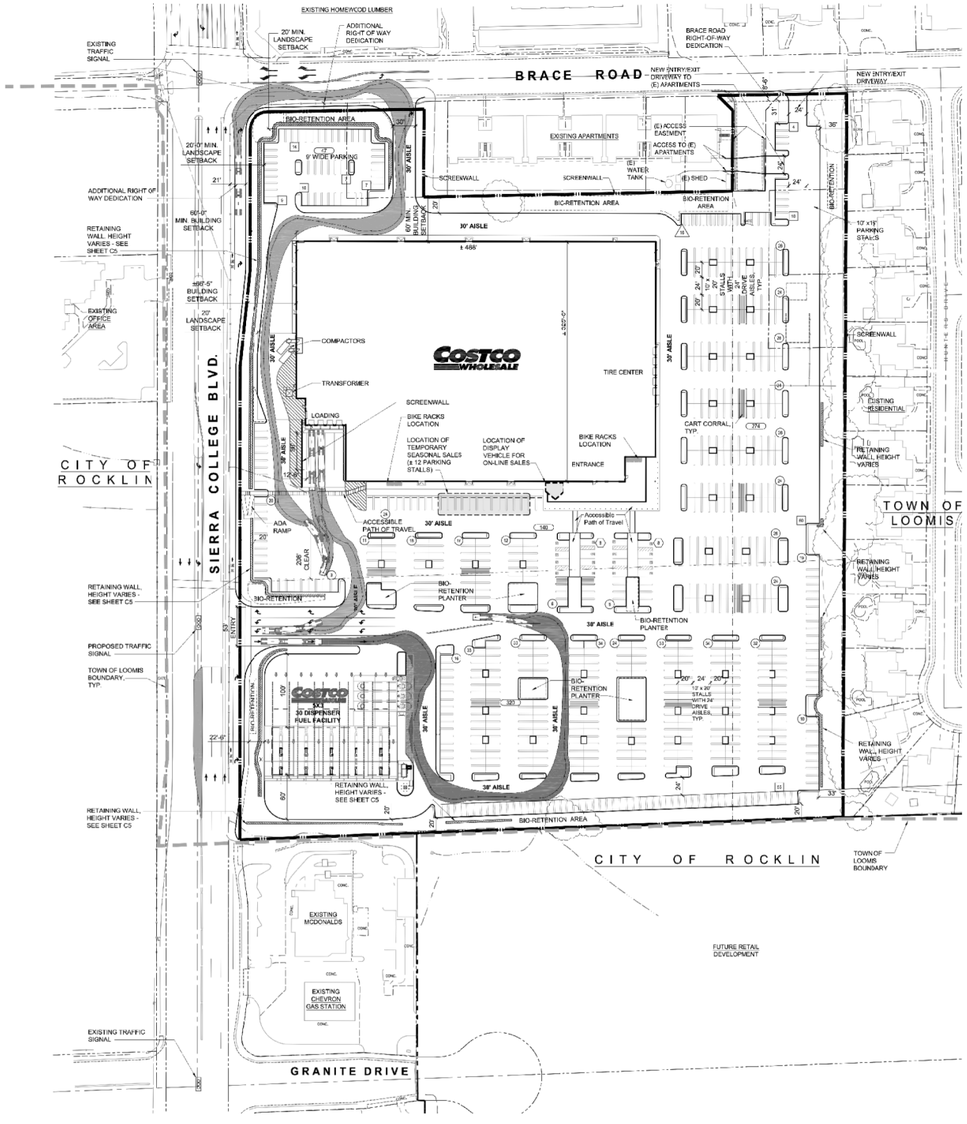
SCALE: 1"=60'-0"
OCTOBER 14, 2019

SHEET 1 of 1

Project Site Plan
Project Driveway Option 1C
Loomis, California

Figure 6C

KITTELSON & ASSOCIATES



Project Data

Client:	Costco Wholesale 999 Lake Drive Issaquah, WA 98027
Project Address:	Sierra College Boulevard Loomis, CA Town of Loomis

Site Data

Costco Site Area: Right of Way Dedication	17.31 AC (754,042 s.f.) 0.50 AC (22,148 s.f.)
Jurisdiction:	Town of Loomis, CA
Existing Zoning:	GC - General Commercial / RM 5 - Medium Density Residential
Boundary Information:	This plan has been prepared using the Topographic Survey dated October 2016 prepared by Kier & Wright Civil Engineers & Surveyors, Inc.

Building Data

Total:	± 153, 000 s.f.

Parking Data

9' wide stalls:	176 stalls
10' wide stalls:	589 stalls
Accessible stalls:	16 stalls
Total Parking:	781 stalls (5.1 / 1,000)
5' wide Motorcycle stalls:	16 stalls

Parking Required: (Town of Loomis)	765 5.0 / 1,000

Truck Legend

- Fue Delivery Truck Route
- Warehouse Delivery Truck Route

Vicinity Map
Scale: N.T.S.

COSTCO WHOLESALE
DBA # P256

DB+A
DAVID BABCOCK + ASSOCIATES
ARCHITECTS PLANNING LANDSCAPE
3981 MT. DIABLO BLVD., SUITE B-255
LAFAYETTE, CALIFORNIA 94549
T: 925.283.5070

COSTCO LOOMIS, CA

TRUCK ROUTE EXHIBIT

SCALE: 1"=60'-0"
OCTOBER 22, 2019

SHEET 1 of 1

Project Site Plan
Truck Route Exhibit
Loomis, California

Figure 6D

5.1.2 Proposed Roadway Infrastructure Improvements

Costco will provide the following transportation infrastructure in conjunction with site development.

- Sierra College Boulevard Changes
  - Restripe the existing northbound right-turn lane on Sierra College Boulevard approaching Granite Drive from an exclusive right-turn lane to a shared through/right-turn lane (for Project Driveway Options 1B and 1C only).
  - Dedicate right-of-way and widen Sierra College Boulevard along the Project site frontage and restripe the roadway to provide three northbound through travel lanes and a northbound Class II bicycle lane between Granite Drive and Brace Road.
  - Signalize the proposed new Costco site access intersection on Sierra College Boulevard.
  - Provide traffic signal interconnect between the proposed new Costco site access signalized intersection and the adjacent intersections along Sierra College Boulevard at Brace Road and Granite Drive.
  - Construct a separate northbound right-turn lane on Sierra College Boulevard approaching the proposed new signalized site access intersection. Provide a right-turn overlap signal phase at the intersection.
  - Construct a southbound left-turn lane on Sierra College Boulevard approaching the proposed new signalized Costco site access intersection.
  - Construct a separate northbound right-turn lane on Sierra College Boulevard approaching the signalized Brace Road intersection (the turn lane is proposed to include a 90-foot long taper and 200 feet of right-turn storage). Provide a right-turn overlap signal phase at the intersection.
- Brace Road
  - Dedicate right-of-way and construct standard half-street improvements along the Brace Road site frontage.
  - Install a raised median on Brace Road between Sierra College Boulevard and the existing Homewood Lumber driveway to the east to limit Costco access to right-turns only.
- Granite Drive (for Project Driveway Options 1B and 1C only)
  - Reconstruct Granite Drive east of Sierra College Boulevard to provide side-by-side eastbound and westbound left-turn lanes separated by a new raised median between Sierra College Boulevard and the new north-south drive aisle to the Costco Project site (including widening east of the existing private driveways on Granite Drive to accommodate the side-by-side left-turn lane).

5.2 PROJECT TRIP GENERATION

This section provides an overview of trip generation rates and trip characteristics of Costco Warehouses with Costco Gasoline fuel stations as well as the proposed Project trip generation.

5.2.1 Costco Wholesale Trip Characteristics

Costco Warehouse facilities are open to members only and operate seven days a week. Typically, the warehouse building is open to members on weekdays between the hours of 10:00 AM and 8:30 PM. Weekend operating hours open to members are typically from 9:30 or 10:00 AM to 6:00 PM. The warehouses are typically closed on major holidays. Costco Gasoline fuel stations co-located on the site are typically open seven days a week between 5:00 AM and 10:00 PM.

Trip data has been collected at Costco Warehouses across the United States and documented that they typically generate higher traffic volumes than other commercial land uses with similar building sizes. In addition to the number of trips, the Costco trip generation database also documents trip type based on member survey information that provides the percentage of primary, pass-by, and diverted trips, as further described below.

- Primary Trips (an entirely new trip on the roadway system for the express purpose of driving to and from Costco),
- Pass-by Trips (existing trips that are on roadways adjacent to the site which allow the motorist to turn into the Costco development, and then continue on to their ultimate destination when their shopping is concluded), and
- Diverted Trips (existing trips on nearby roadways in which the motorist makes a decision to drive out-of-direction for a distance to stop at Costco, and when their shopping is concluded, continue on their trip to the ultimate destination).

The Costco Warehouse trip database was used to estimate trips associated with the proposed Project.

5.2.2 Trip Characteristics Application

This report assesses the impacts of pass-by and diverted trip impacts at the study intersections. Typically, pass-by trips have an impact only at the site-access driveways, whereas the impact of diverted trips could extend through additional study area intersections beyond the site access points (diverted trips are typically modeled similar to net new trips at many or all of the study area intersections).

Diverted and pass-by trips were considered together with engineering judgment to identify how these two trip characteristics should be applied to the Project. Recognizing the context of the Project site relative to key transportation corridors, this study assumes that all diverted trips would travel to and from I-80 to access Costco. The diverted trips were treated as new trips to each of the study intersections they were routed through, including the I-80 ramp terminals. Assigning all diverted trips as new trips along the Sierra College Boulevard corridor between the I-80 ramps and the Project site results in a more conservative analysis by assuming worst-case impacts through the interchange ramps and the Sierra College Boulevard corridor.

5.2.3 Trip Generation Estimate

Trip generation studies were conducted at Costco Wholesale sites located across the western region of the United States using industry standard engineering practices consistent with guidance within the Institute of Transportation Engineers (ITE) standard reference, Trip Generation Handbook, 9th Edition Volume 1[6]. These cordon studies were conducted between 2001 and 2010, and include 22 surveys of Costco Warehouses with Costco Gasoline fuel stations in California, Oregon, Washington, Montana, Utah, and Colorado[7].

The Costco Wholesale buildings surveyed range in size between 120,000 square feet and 162,115 square feet, with an average size of 143,782 square feet and had Costco Gasoline fuel stations. As a result, the Costco Wholesale trip generation rates inherently account for Costco Gasoline fuel station trips within the overall rate. Table 11 summarizes the average trip rates recorded.

Table 11: Average Trip Characteristics for a Costco Warehouse with Fuel Station

Land Use	Weekday Daily Trip Rate (per KSF)	Weekday PM Peak Hour of Adjacent Street Traffic Trip Rate (per KSF)			Weekend Midday Peak Hour (per KSF)		
		Total	In	Out	Total	In	Out
Costco Warehouse With Fuel Station	79.27	7.17	48.5%	51.5%	9.79	51%	49%
Primary Trips	No Data		35.1%			50%	
Pass-by Trips	No Data		33.3%			29%	
Diverted Trips	No Data		31.5%			21%	

KSF: Thousand square feet
Source: Kittelson & Associates, Inc. 2019

[6] Note that the Trip Generation Manual (9th Edition and 10th Edition) includes trip data for a "Discount Club" (Land Use Code 857) that is described as follows: "A discount club is a discount store or warehouse where shoppers pay a membership fee in order to take advantage of discounted prices on a wide variety of items such as food, clothing, tires and appliances; many items are sold in large quantities or bulk. Some sites may include on-site fueling pumps." By comparison, the trip rates presented in Trip Generation for the Discount Club are 41.80 trips/KSF per day weekdays, 4.18 trips/KSF for the weekday PM peak hour, and 6.37 trips/KSF for the Saturday peak hour of the generator; each lower than the Costco trip rates shown in Table 12. Per the Trip Generation Handbook, 3rd Edition, the weekday PM peak hour pass-by rate for Land Use Code 857 is 37% and the Saturday midday peak hour pass-by rate is 30% (both slightly higher than the values shown in Table 12 for Costco) while no diverted trip data was reported (not collected).

[7] Additional documentation of the Costco Trip database is provided in Appendix "F".

Note that no weekday AM peak hour trip rate is shown in Table 11 because the Warehouse building is not open to members during the morning commute hours. Weekday AM peak hour trip generation for the Project site is impacted by the Costco Gasoline fuel station, which is discussed in the next section.

Table 12 presents trip generation estimates for the proposed Loomis Costco Warehouse with Costco Gasoline fuel station facility based on the data shown in Table 11 (daily trips were rounded to the nearest 10). No adjustments for employee transportation demand management (TDM) measures were made as employee trips occur primarily outside of the analysis peak hours.

Table 12: Proposed Loomis Costco Trip Generation Estimate

Land Use	Size	Weekday Daily Trips	Weekday PM Peak Hour of Adjacent Street Traffic			Weekend Midday Peak Hour		
			Total	In	Out	Total	In	Out
Costco Warehouse With Fuel Station	155,000 square feet	12,290	1,111	539	572	1,518	773	745
Pass-by Trips (33.3% PM/28.9% MD)		*(4,090)*	*(370)*	*(179)*	*(191)*	*(439)*	*(223)*	*(216)*
Diverted Trips (31.5% PM/20.6% MD)		*(3,870)*	*(350)*	*(170)*	*(180)*	*(313)*	*(159)*	*(154)*
Net New Trips		**4,330**	**391**	**190**	**201**	**766**	**391**	**375**

Note that the number of weekday and weekend daily (primary, pass-by, and diverted) trips were estimated using weekday PM peak hour trip type percentages.

Source: Kittelson & Associates, Inc. 2019

5.2.4 Weekday AM Peak Hour Trips Associated with Costco Gasoline Fuel Station

Tables 11 and 12 do not show site trips generated during the commuter weekday AM peak hour because the Costco Warehouse will not be open; however, the Costco Gasoline fuel station will be. Weekday AM peak hour trips associated with gasoline operations were estimated based on trip generation data collected at existing Costco Gasoline facilities.

Table 13 below presents the trip characteristics for the fuel station for the weekday AM Peak hour assuming the planned future 30 fueling position capacity. The averages summarized in Table 13 reflect data collected at multiple California locations based on comparable size and available data including Lancaster, Cypress, Commerce, Roseville, and Sunnyvale. Note that only members can access the fuel stations, which require a membership card for pump activation.

Table 13: Costco Gasoline Fuel Station Trip Characteristics

Trip Characteristics	Weekday AM Peak Hour	Weekday AM Peak Hour Trips (30 fueling positions)		
		Total	In (50%)	Out (50%)
Total Trip Rate	13.98 trips/fuel position	420	210	210
Internal Trip Percentage	0%[1]	(0)	(0)	(0)
Pass-by Trip Percentage[2]	32.5%	(136)	(68)	(68)
Diverted Trip Percentage[2]	36.8%	(154)	(77)	(77)
Net New Trips		**130**	**65**	**65**

[1]Warehouse not open during weekday AM peak period
[2]Percentage of external trips
Source: Kittelson & Associates, Inc. 2019

5.3 PROJECT TRIP DISTRIBUTION

This section provides an overview of trip distribution percentages for the proposed Project. The distribution patterns were developed based on review of Costco Warehouse membership data, consideration of population centers and the roadway network that serves them, as well as review of existing travel patterns in the study area.

Figure G-1 in Appendix "G" shows the overall distribution pattern. As shown in the figure, the majority of site-generated trips are expected to be oriented south and east of the Project site for reasons described below.

Influence of Existing Costco Wholesale Sites

The project trip distribution pattern is influenced by the presence of multiple Costco Wholesale sites located to the south and west of Loomis including Roseville, Citrus Heights, Folsom, Cal Expo (Sacramento), Rancho Cordova and Woodland as shown in Exhibit 1.

Exhibit 1. Existing Costco Warehouse Sites

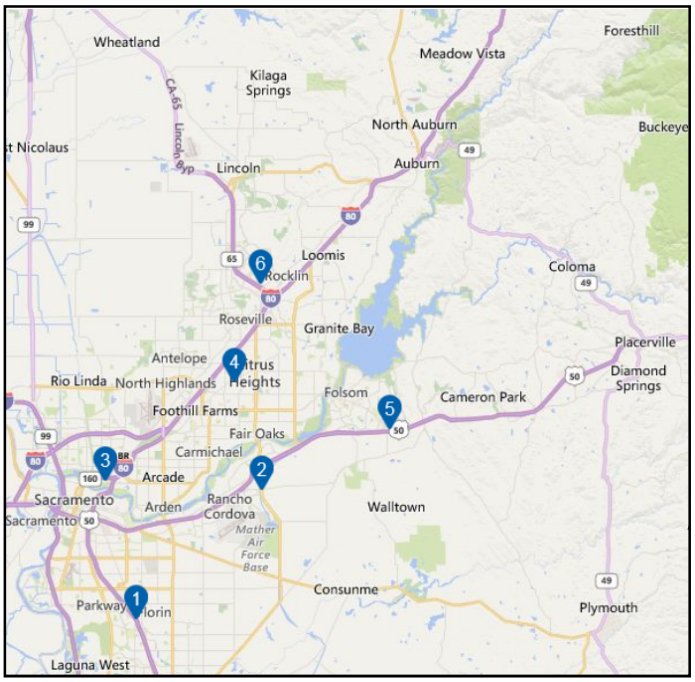


Image Source: Costco Wholesale, https://www.costco.com/warehouse-locations

Existing Costco Warehouse locations shown in Exhibit 1 are:

1. 7981 E Stockton Boulevard in Sacramento
2. 11260 White Rock Road in Rancho Cordova
3. 1600 Expo Parkway (Cal Expo) in Sacramento
4. 7000 Auburn Boulevard in Citrus Heights
5. 1800 Cavitt Drive in Folsom
6. 6750 Stanford Ranch Road in Roseville

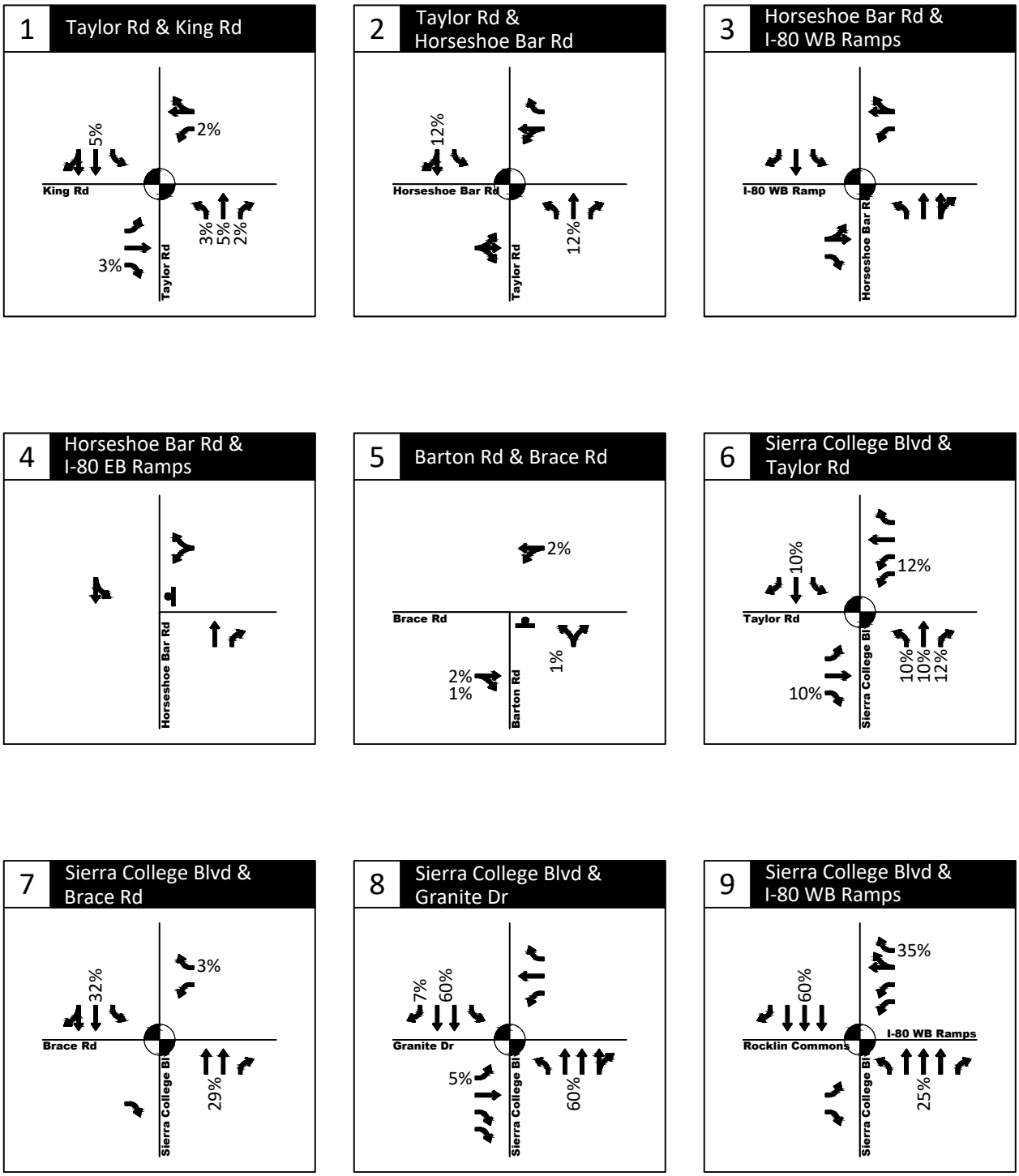
The proposed Project is situated approximately five miles east of the existing Roseville Costco Warehouse (warehouse location 6 in Exhibit 1) and is expected to impact the market area of the Roseville Costco. For example, Costco Wholesale anticipates the proposed Project will directly serve some existing Costco members residing east of the Roseville Costco Warehouse, particularly those along the I-80 corridor that currently drive past Loomis on I-80 to reach Roseville (for example, members residing in Auburn).

General Distribution Considerations

Based on the Project site location and the existing Costco Warehouses, approximately 45 percent of the Project net new site-generated trips are expected to travel to and from the Project site via I-80, including 35 percent traveling east of Sierra College Boulevard and approximately 10 percent traveling west of Sierra College Boulevard). The remaining trips were routed to Town of Loomis, City of Rocklin, and Placer County roadway facilities.

The presence of the Roseville Costco directly impacts (limits) the amount of new traffic anticipated to the proposed Project site from points to the north and west. For example, the number of project-generated trips on Sierra College Boulevard north of Taylor Road is expected to be relatively limited (approximately 10 percent) because residents of Lincoln and portions of the housing west of Sierra College Boulevard are able to access the Roseville Costco via Highway 65. Similarly, while resident population is generally denser west of Sierra College Boulevard, the number of net new trips routing on Pacific Street west of Sierra College Boulevard was estimated at 10 percent while the portion routed on Taylor Road east of Sierra College Boulevard was estimated higher at 12 percent recognizing that some residents to the west will continue to shop at the Roseville Costco.

Figure 7 presents the Project trip distribution patterns for Project Driveway Option 1A by intersection for the weekday AM peak hour for fuel trips given the warehouse is closed during this peak hour. Figure 8 presents the Project trip distribution patterns Project Driveway Option 1A by intersection for the weekday PM and weekend midday peak hours with the warehouse in operation. The trip distribution patterns were approved by the Town of Loomis and the City of Rocklin confirmed they were appropriate. Project Driveway Options 1B and 1C would affect the Project trip distribution at study intersections 7, 8, 21, 24, 25, and 37. All other study intersections would have the same trip distribution under Project Driveway Options 1B and 1C as they would under Project Driveway Option 1A. Figures 9 and 10 present the trip distribution patterns for Project Driveway Options 1B and 1C at those study intersections affected by the options.



##% - Percent Trip Distribution

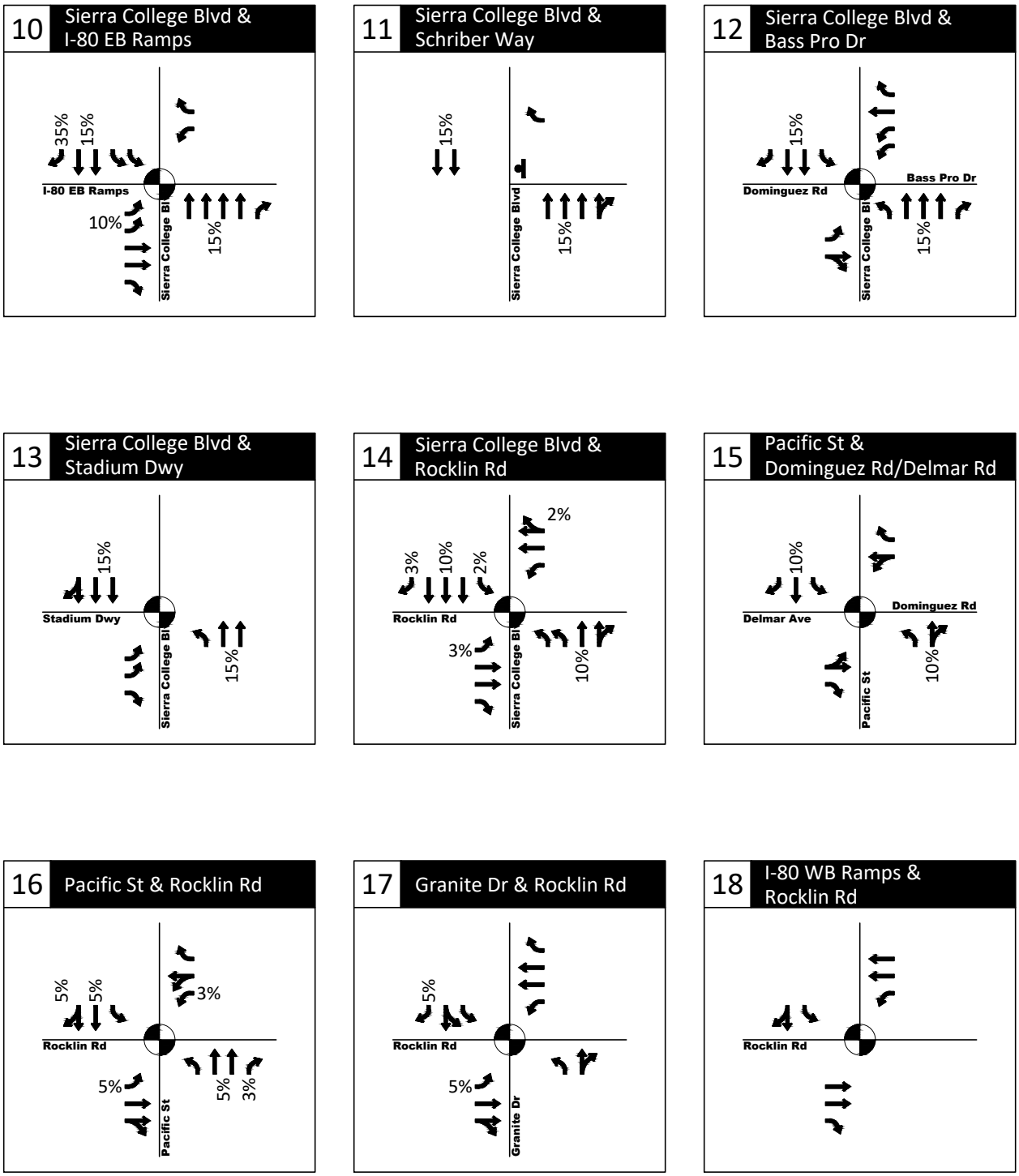
- Stop Sign

- Traffic Signal

Project Trip Distribution
Weekday AM Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
7A

KITTELSON & ASSOCIATES



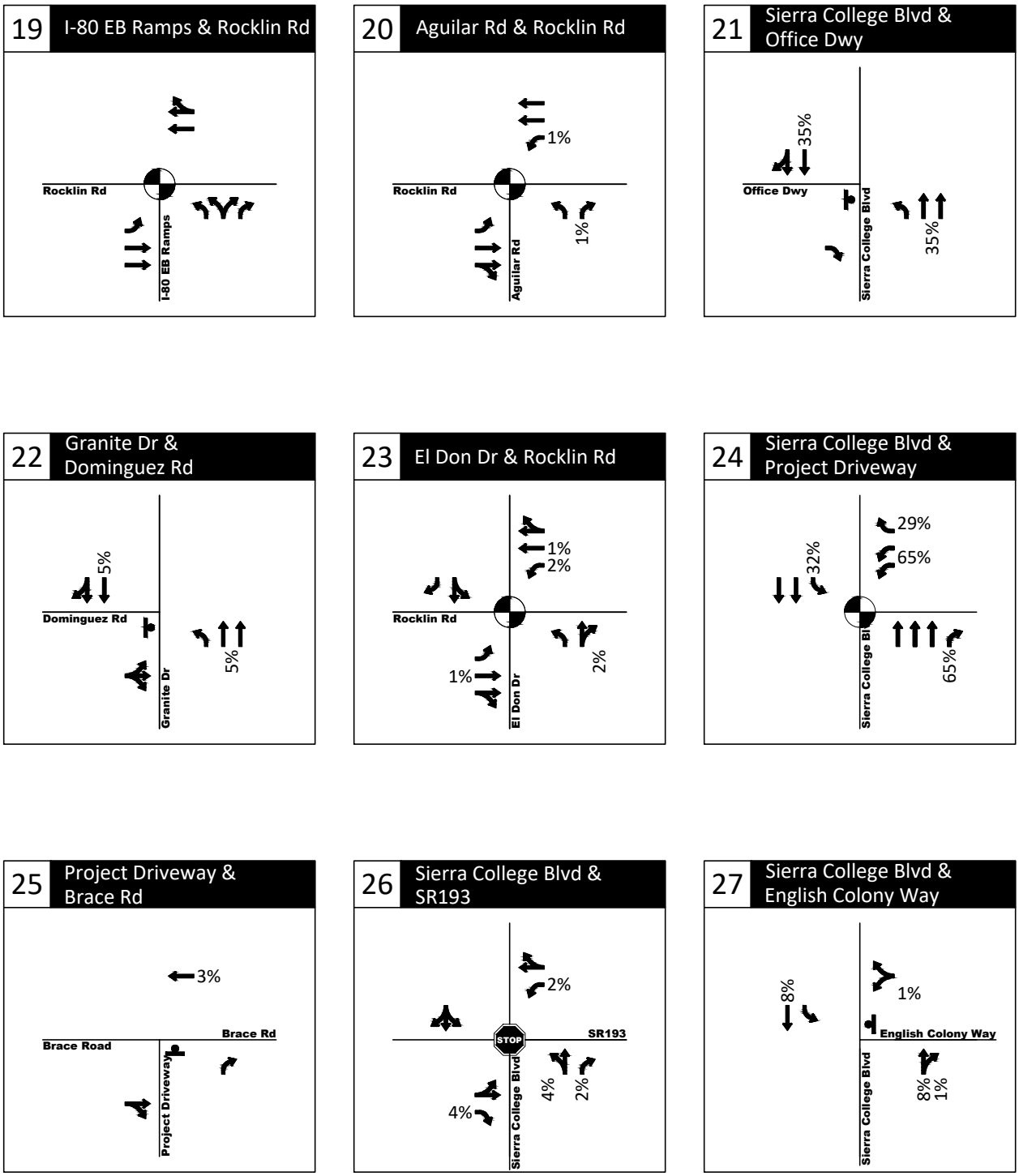
##% - Percent Trip Distribution

- Stop Sign

- Traffic Signal

Project Trip Distribution
Weekday AM Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
7B



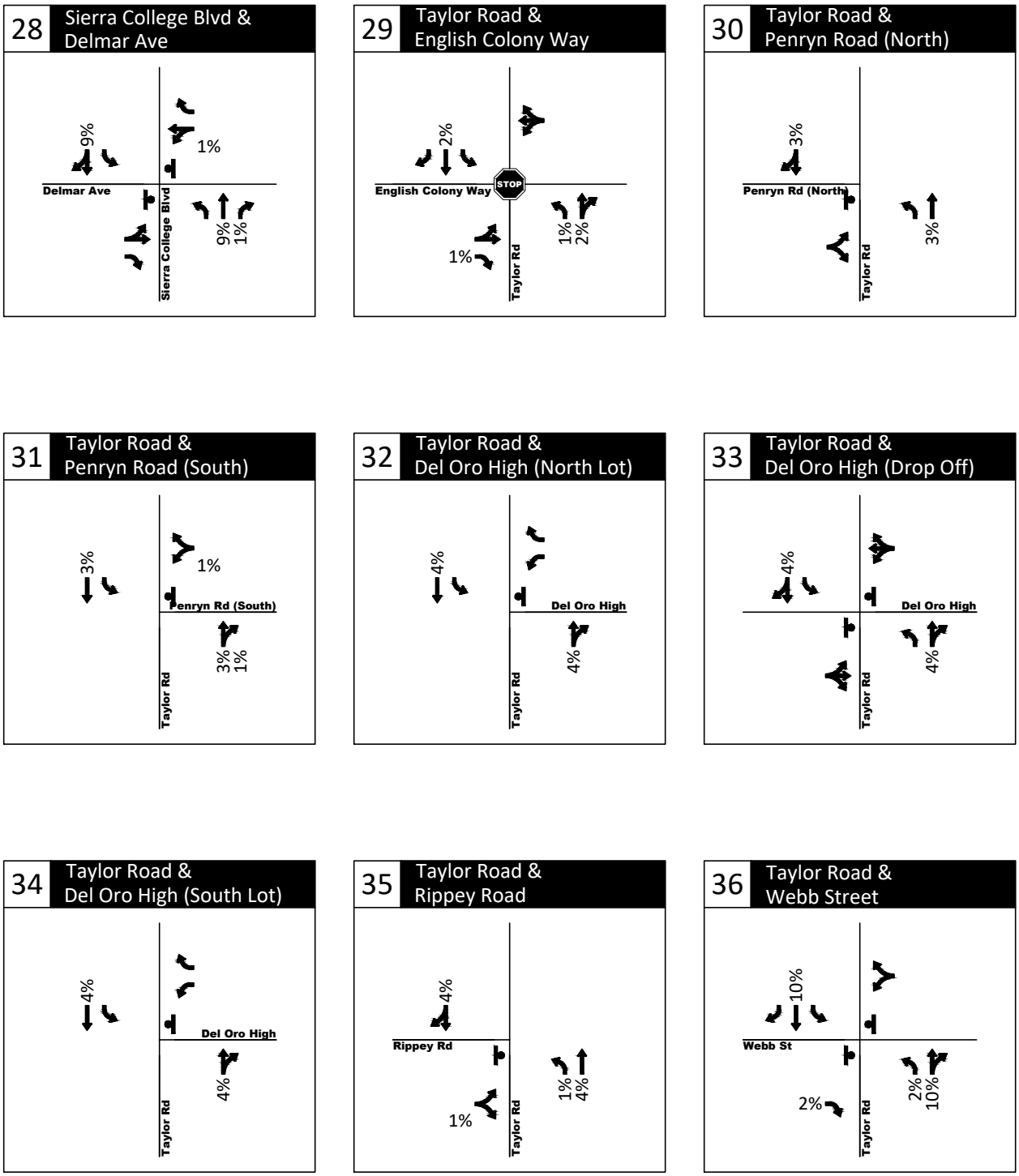
##% - Percent Trip Distribution

- Stop Sign

- Traffic Signal

Project Trip Distribution
Weekday AM Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
7C



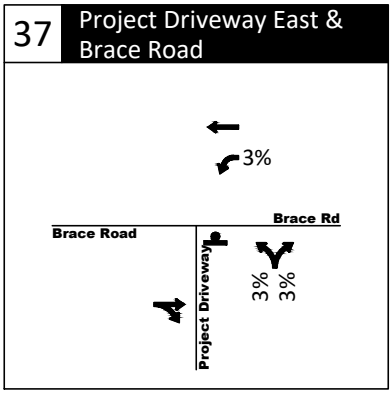
##% - Percent Trip Distribution

- Stop Sign

- Traffic Signal

Project Trip Distribution
Weekday AM Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
7D



##% - Percent Trip Distribution

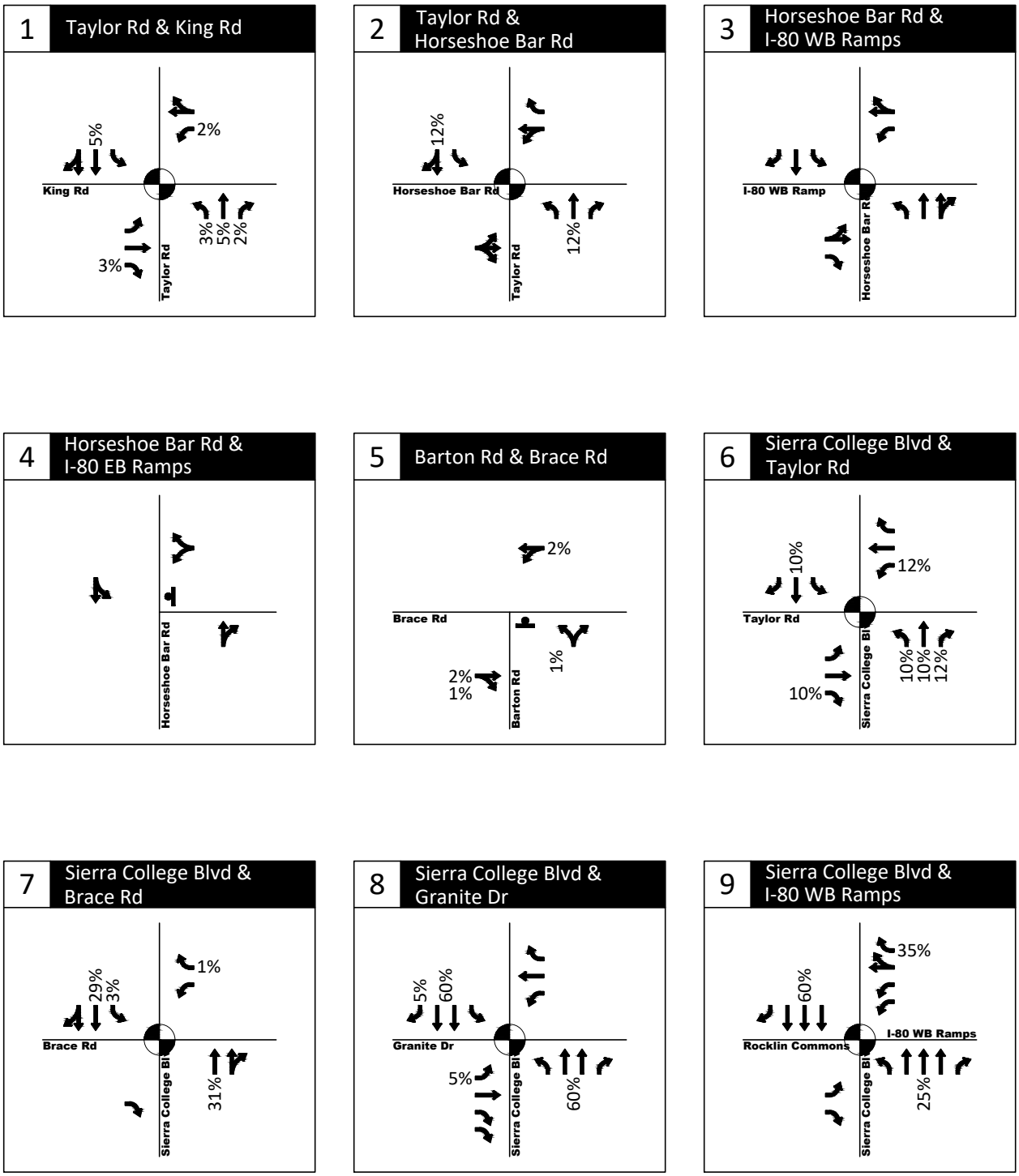
- Stop Sign

- Traffic Signal

Project Trip Distribution
Weekday AM Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
7E

KITTELSON & ASSOCIATES



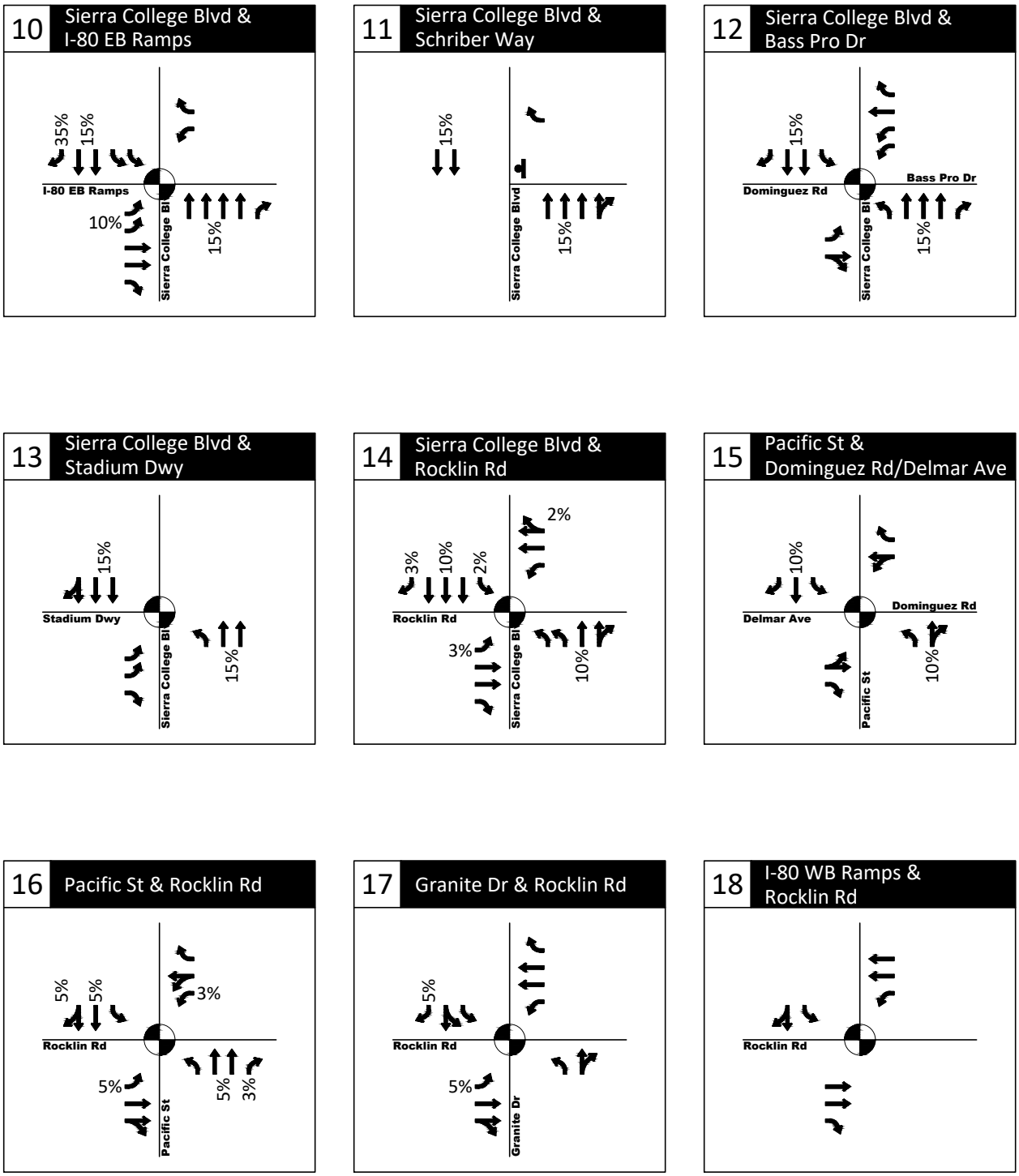
##% - Percent Trip Distribution

- Stop Sign

- Traffic Signal

Project Trip Distribution Weekday PM and Weekend Midday Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
8A



##% - Percent Trip Distribution

- Stop Sign

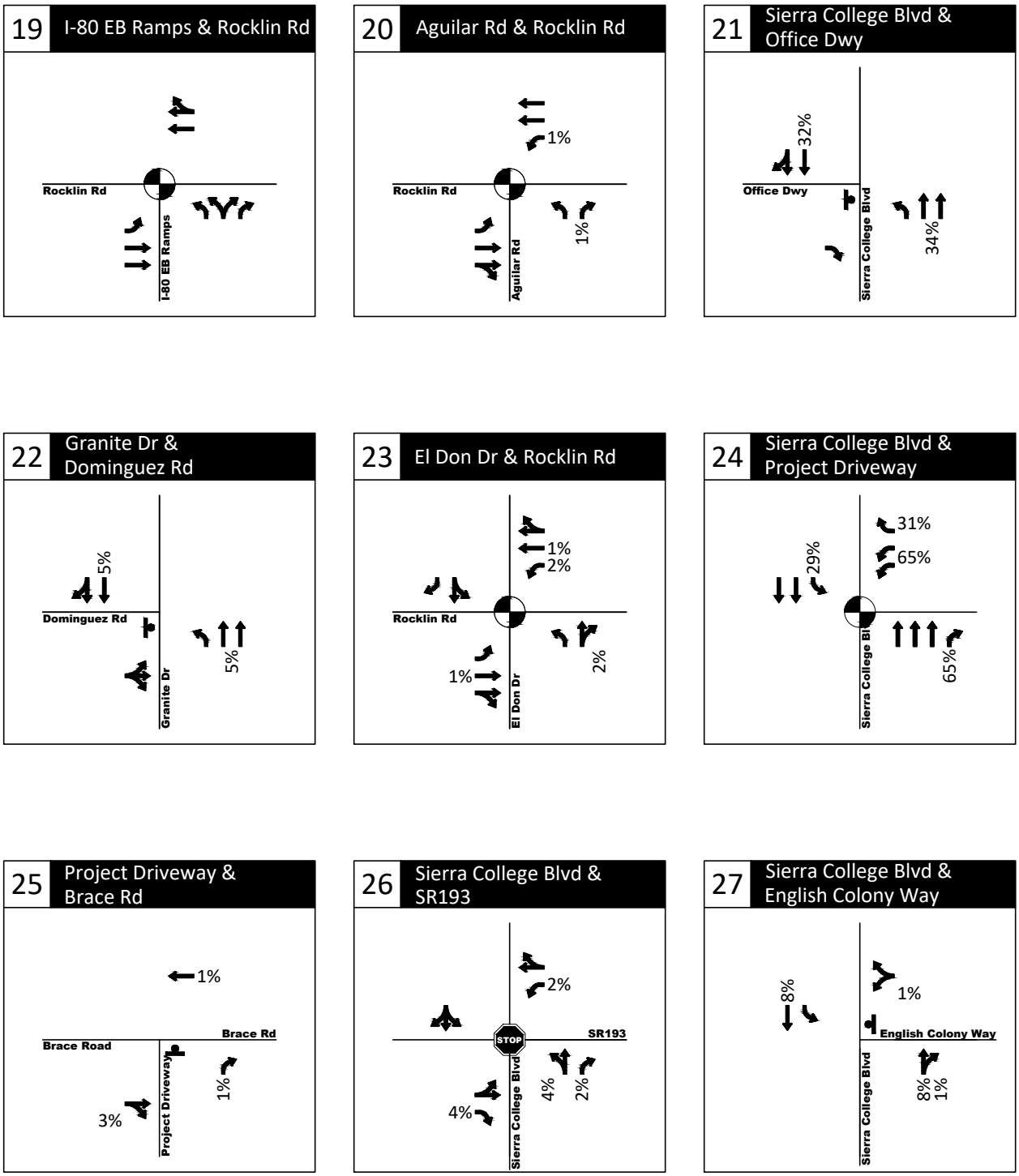
- Traffic Signal

Project Trip Distribution Weekday PM and Weekend Midday Peak Hours - Project Driveway Option 1A
Loomis, California

Figure 8B

H:\20\20345 - Confidential Loomis Costco\dwgs\figs\20345_Fig02_20190703 - Option A.dwg Oct 22, 2019 - 2:09pm - aloveday Layout Tab: TD PM_SAT B

KITTELSON & ASSOCIATES



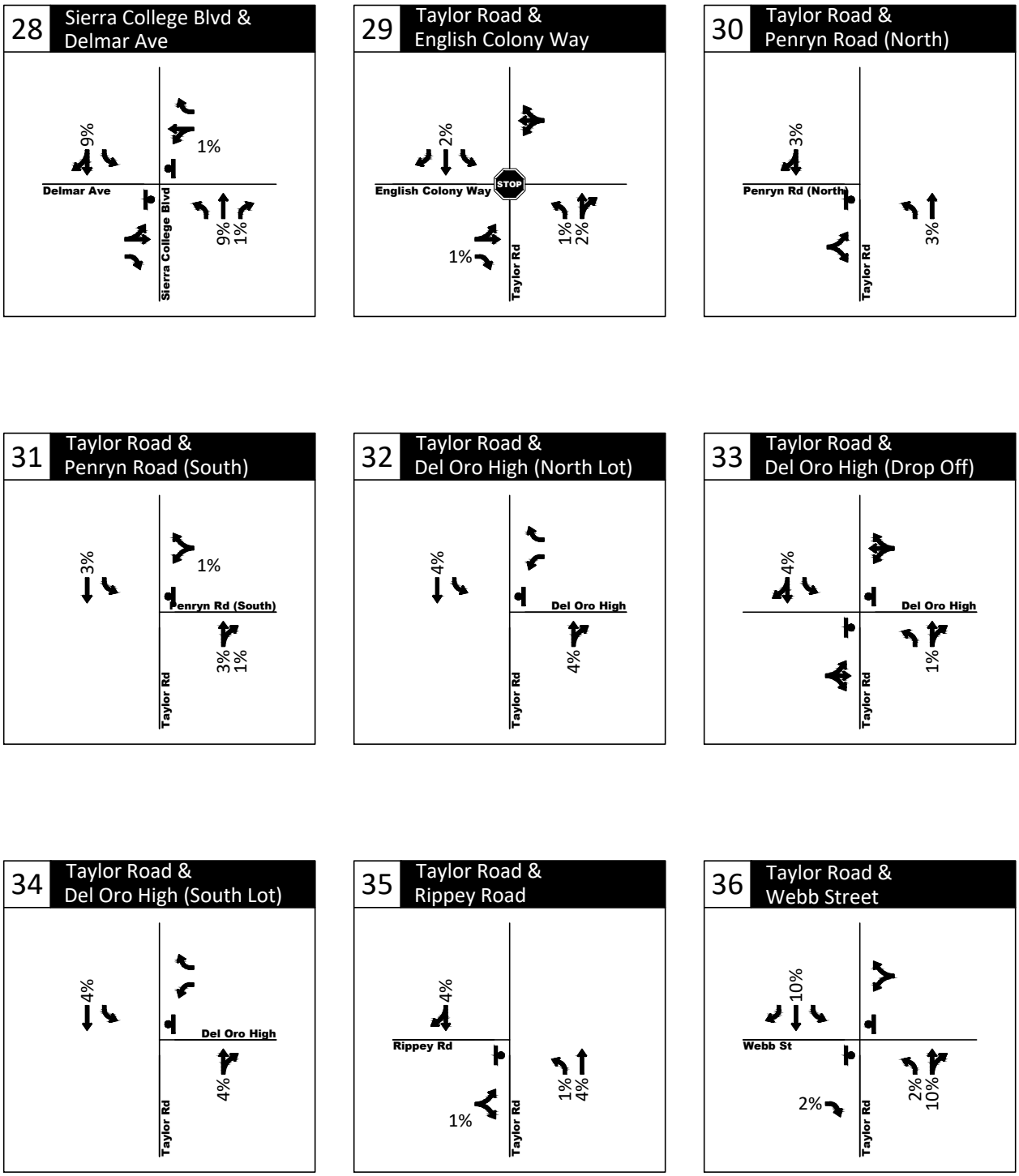
##% - Percent Trip Distribution

- Stop Sign

- Traffic Signal

Project Trip Distribution Weekday PM and Weekend Midday Peak Hours - Project Driveway Option 1A
Loomis, California

Figure 8C



##% - Percent Trip Distribution

- Stop Sign

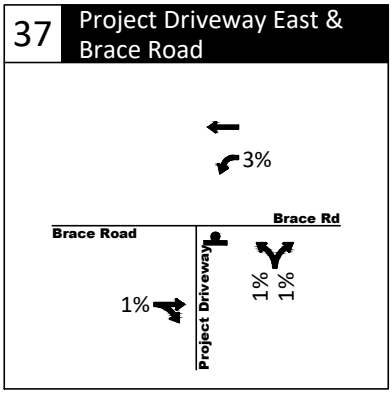
- Traffic Signal

Project Trip Distribution Weekday PM and Weekend Midday Peak Hours - Project Driveway Option 1A
Loomis, California

Figure 8D

H:\20\20345 - Confidential Loomis Costco\dwgs\figs\20345_Fig02_20190703 - Option A.dwg Oct 22, 2019 - 2:10pm - aloveday Layout Tab: TD PM_SAT D

KITTELSON & ASSOCIATES



##% - Percent Trip Distribution

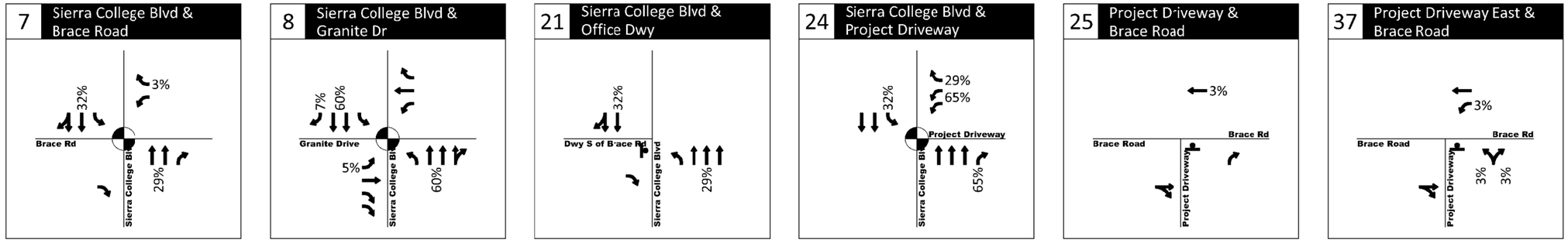
- Stop Sign

- Traffic Signal

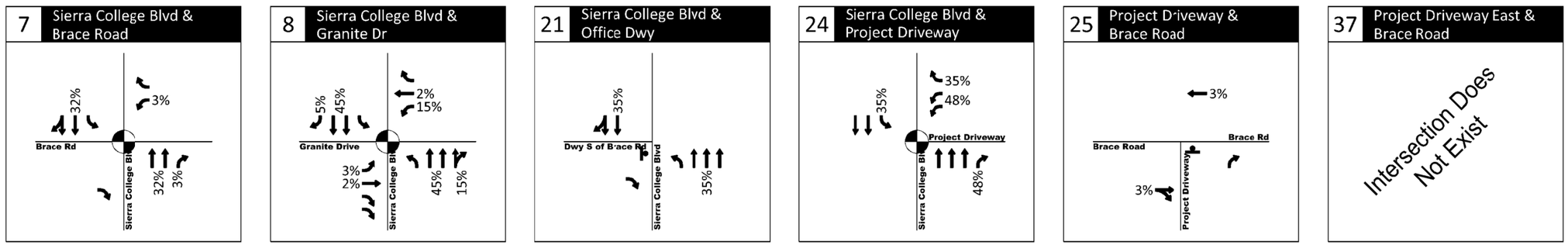
Project Trip Distribution Weekday PM and Weekend Midday Peak Hours - Project Driveway Option 1A
Loomis, California

Figure 8E

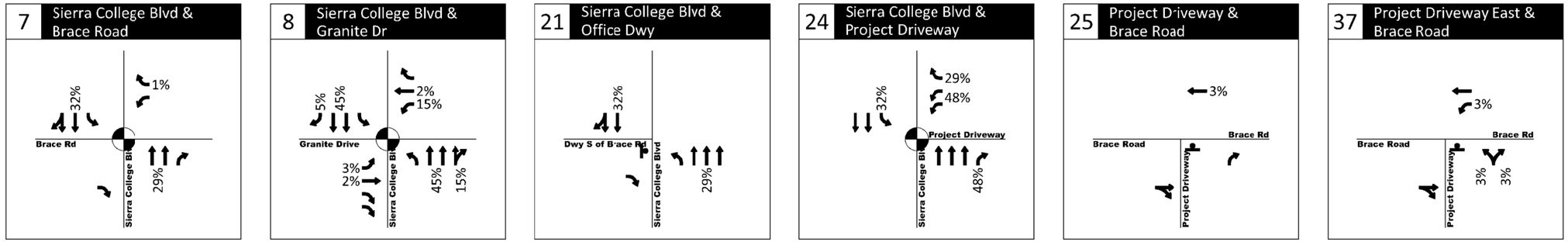
OPTION 1A



OPTION 1B



OPTION 1C



##% - Project Trip Distribution

- Stop Sign

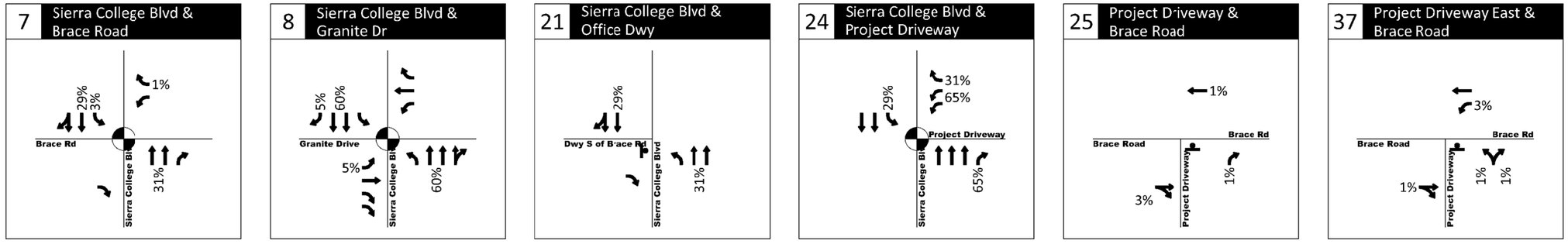
- Traffic Signal

Project Trip Distribution
Weekday AM Peak Hour
Loomis, California

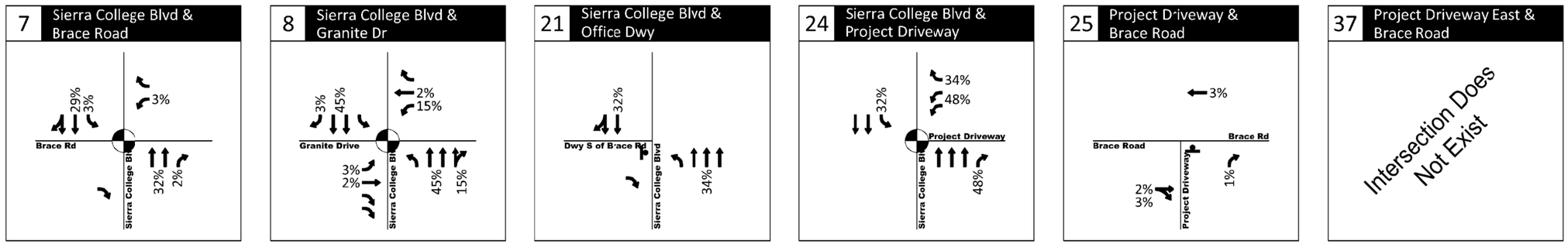
Figure 9

KITTELSON & ASSOCIATES

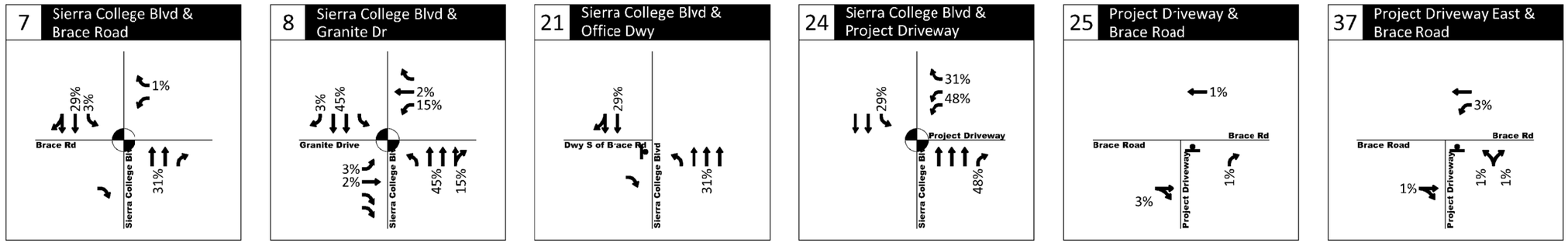
OPTION 1A



OPTION 1B



OPTION 1C



##% - Percent Trip Distribution

- Stop Sign

- Traffic Signal

Project Trip Distribution
Weekday PM & Weekend Midday Peak Hours
Loomis, California

Figure 10

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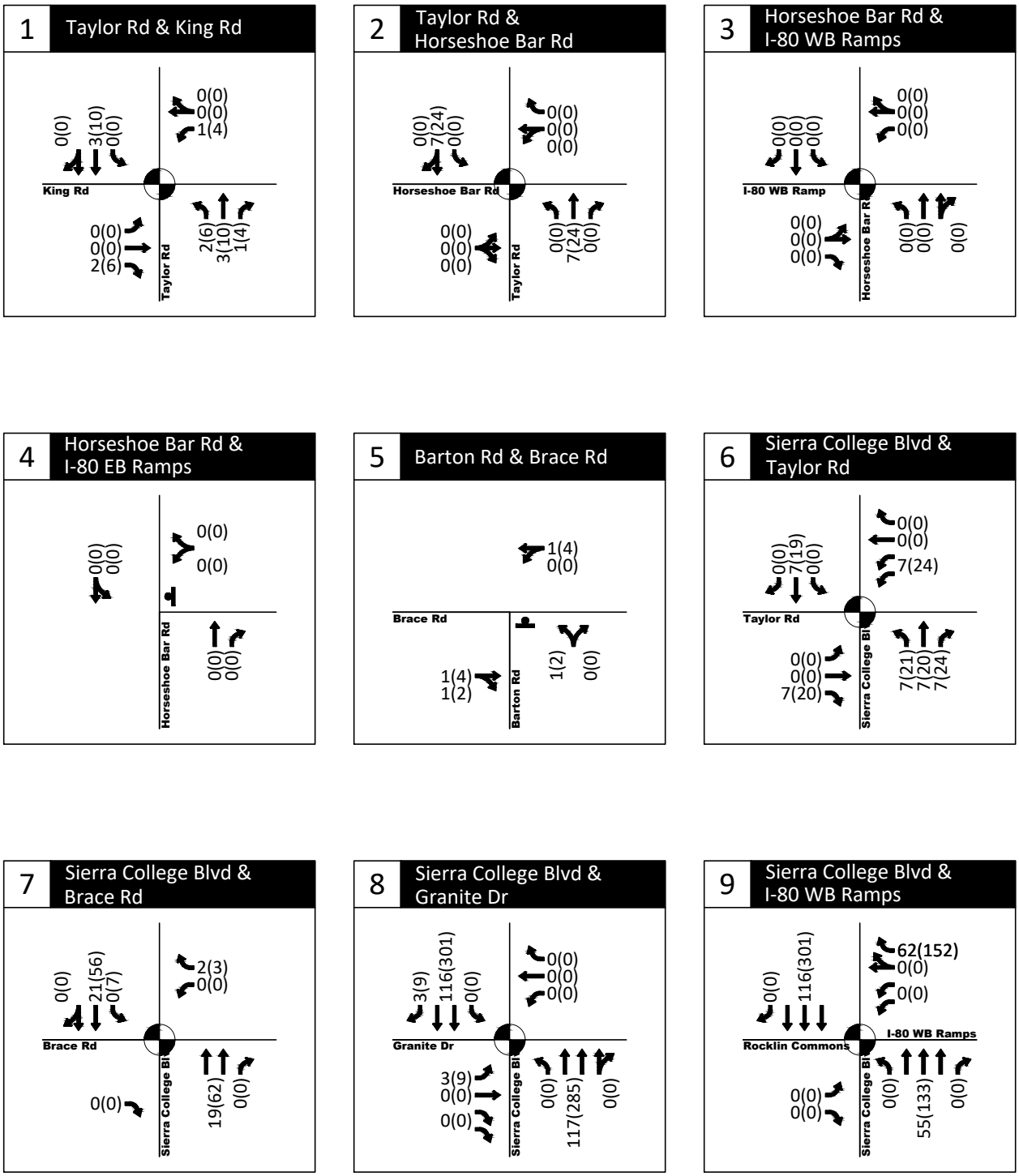
5.4 PROJECT TRIP ASSIGNMENT

This section provides the trip assignment for the proposed Project based on the trip generation and distribution patterns described above. Figures 11 and 12 present the Project trip assignment for Project Driveway Option 1A within the study area. Project Driveway Options 1B and 1C would affect the trip assignment at study intersections 7, 8, 21, 24, 25, and 37. All other study intersections would have the same trip assignment under Project Driveway Options 1B and 1C as they would under Project Driveway Option 1A. Figures 13 and 14 present the Project trip assignment for Project Driveway Options 1B and 1C at those study intersections affected by the options. Please note that the Project proposes a shared access with the existing apartment use at the East Project Driveway on Brace Road under Driveway Options 1A and 1C[8]. Additional figures showing an overall distribution pattern on a map as well as diverted trip assignments are provided in Appendix "G". The percent of traffic added by the Project at each study intersection is also provided in Appendix "G".

Trips were assigned to the network based on the previously described trip distribution pattern, existing turning movement patterns, and considering the proposed site access locations. Of note:

- Pass-by trips were assumed to be traveling along the Sierra College Boulevard Project site frontage prior to site development and thus only impact the Sierra College Boulevard Project site driveways.
- All diverted trips were routed between the Project site and I-80.
    - The diverted trips were analyzed as net new trips to the roadway network between the I-80 ramp intersections and the Costco site.
- Costco Wholesale anticipates the proposed Project will directly serve some existing Costco members residing east of the Roseville Costco Warehouse, including those living in Loomis and Rocklin. *No trip credits or re-routing of existing Costco member trips were made in the intersection operations analysis presented in this report.*
    - In reality, some trips currently traveling through one more of the study intersections traveling to and from the Roseville Costco site will likely divert to the new site.
    - Assuming all of the Costco member trips are new to the study intersections provides a more conservative analysis.

[8] Due to the shared access arrangement between the Costco site and the existing apartments under Driveway Options A and C, some apartment trips will use the East Project Driveway on Brace Road. Apartment trips at the shared access were estimated for the 28-unit apartment building using apartment trip rates in the *Trip Generation Manual, 10th Edition* published by the Institute of Transportation Engineers in 2017 (documentation provided in Appendix G). The estimated apartment trips were assigned to the East Project Driveway based on the direction split of volumes along Brace Road.

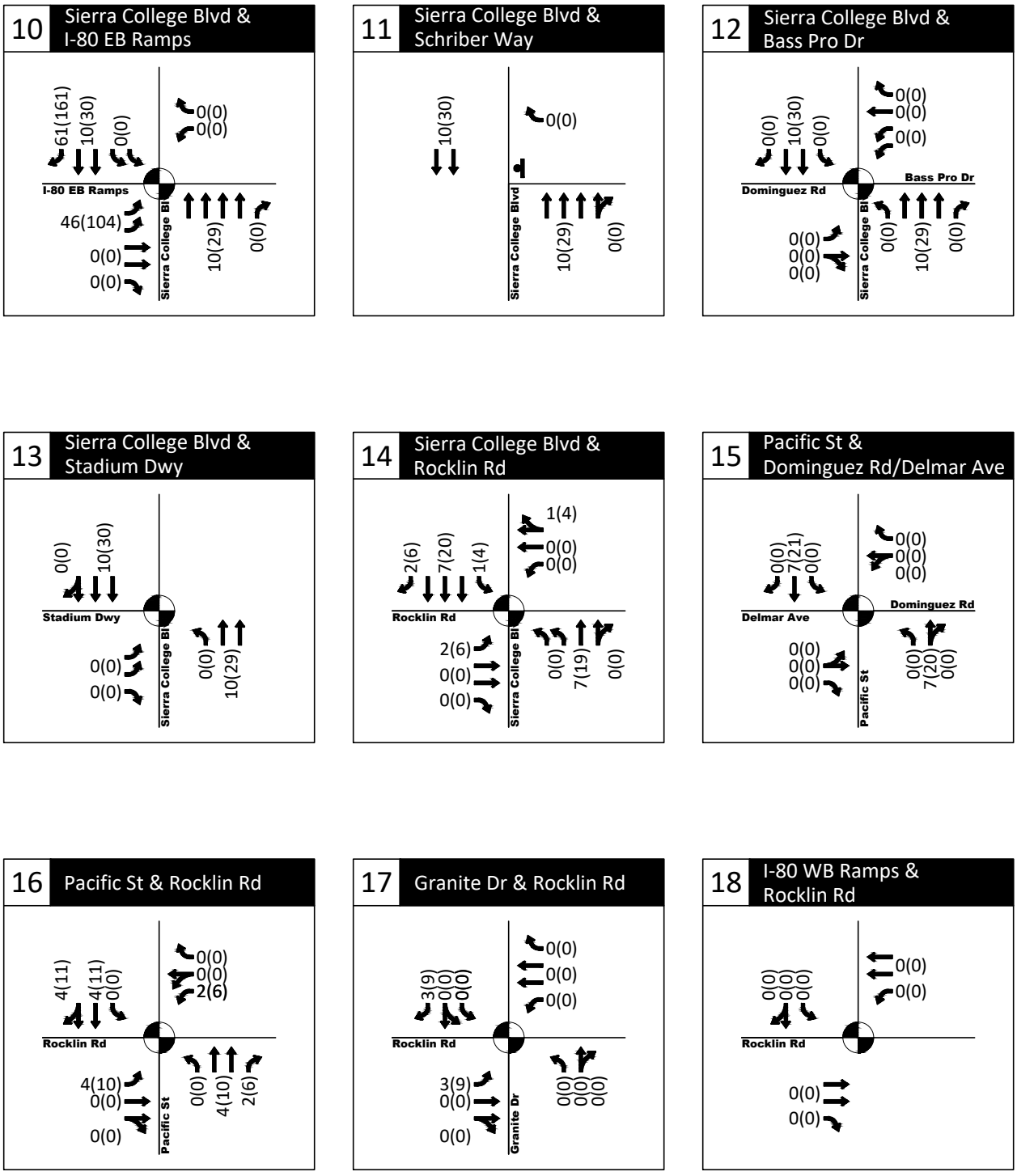


AM(PM) - Weekday Traffic Volume

- Stop Sign
- Traffic Signal

Project Trip Assignment
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
11A



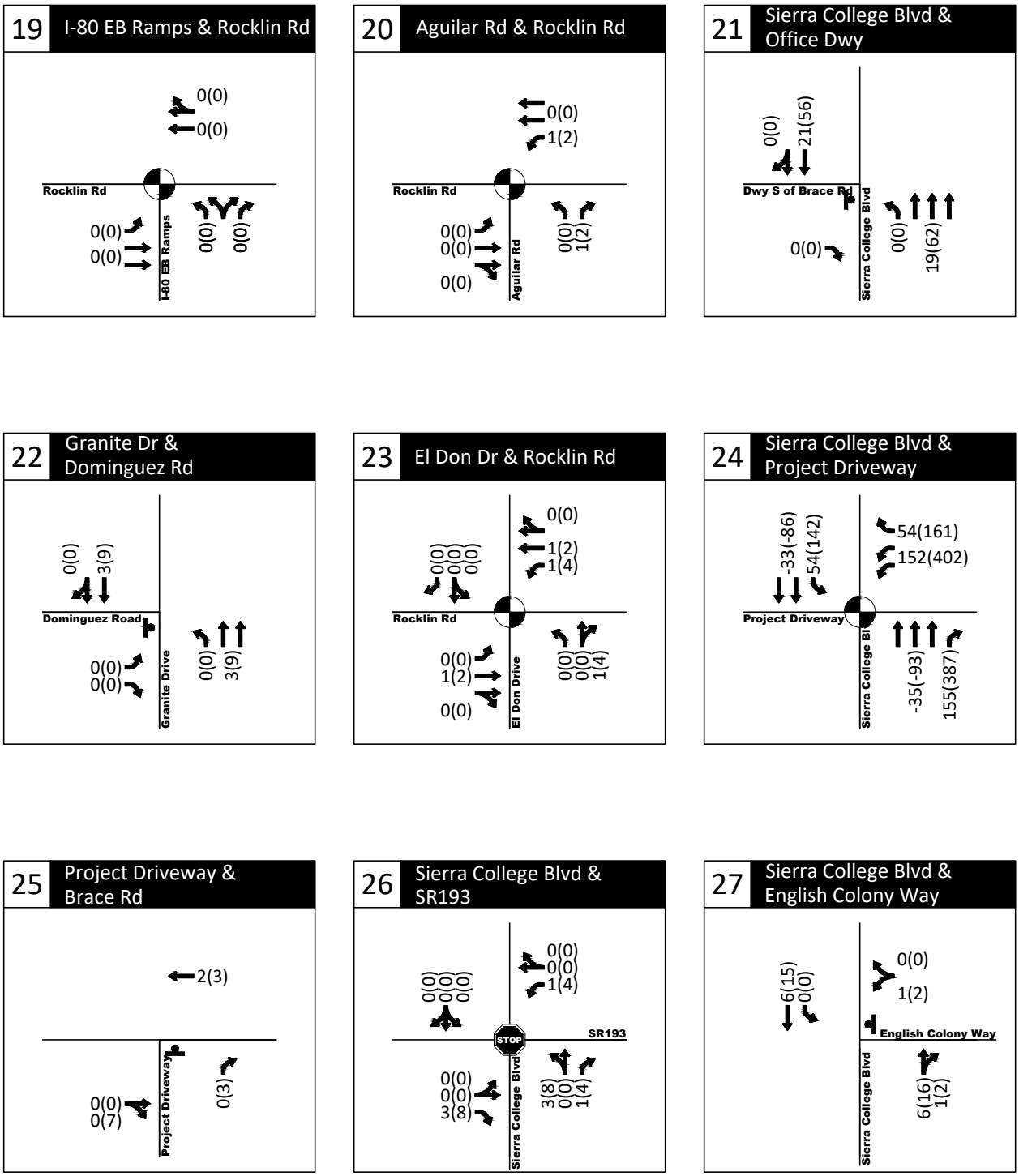
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Project Trip Assignment
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
11B



AM(PM) - Weekday Traffic Volume

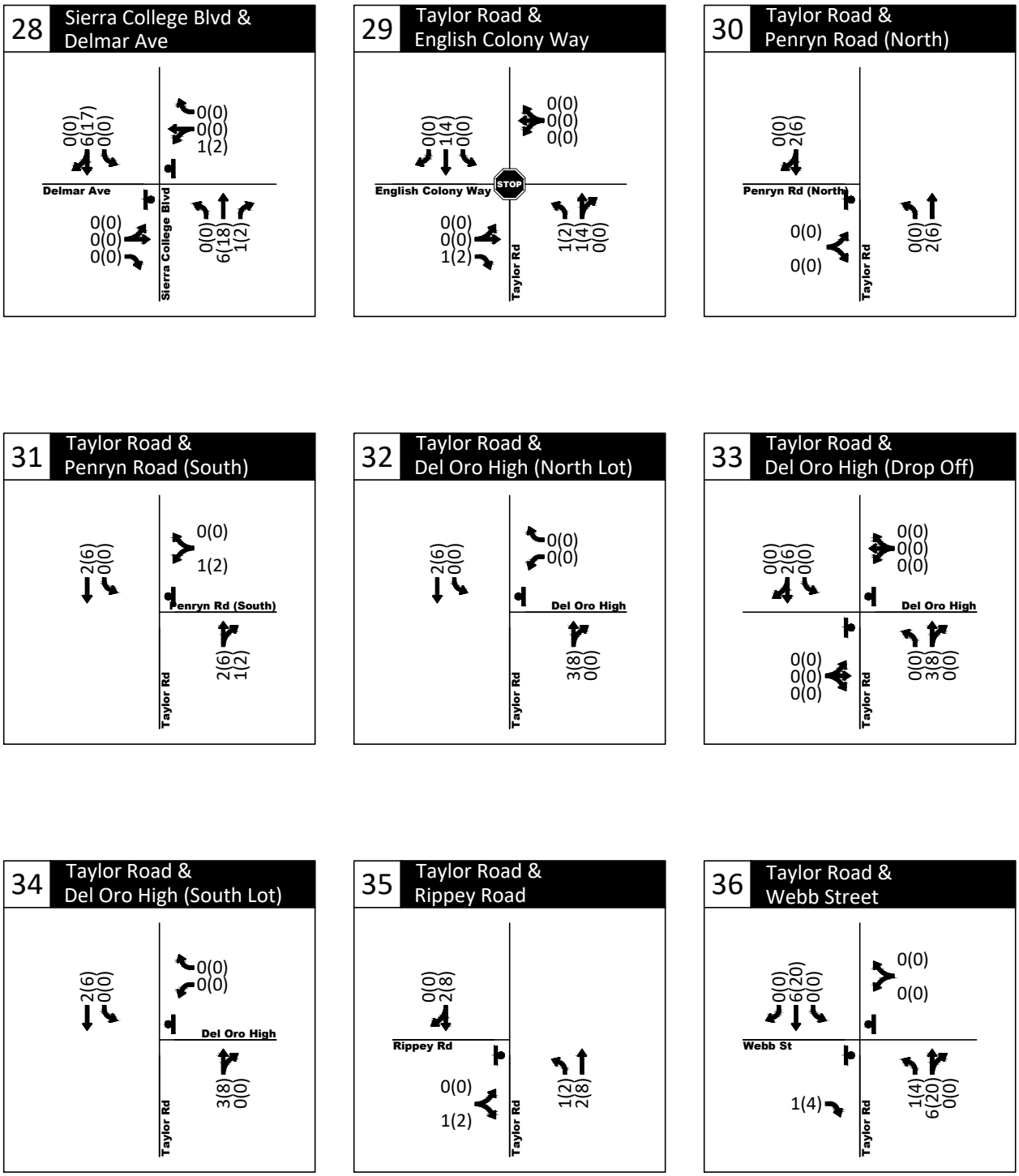
- Stop Sign
- Traffic Signal

Project Trip Assignment

Weekday AM and PM Peak Hours - Project Driveway Option 1A

Loomis, California

Figure 11C

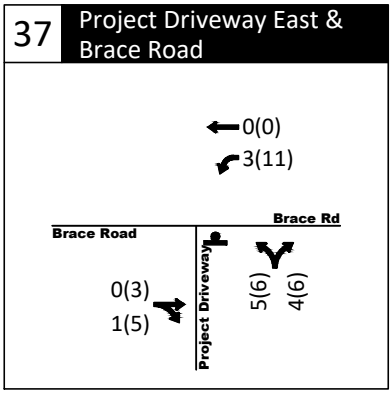


AM(PM) - Weekday Traffic Volume

- Stop Sign
- Traffic Signal

Project Trip Assignment
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
11D



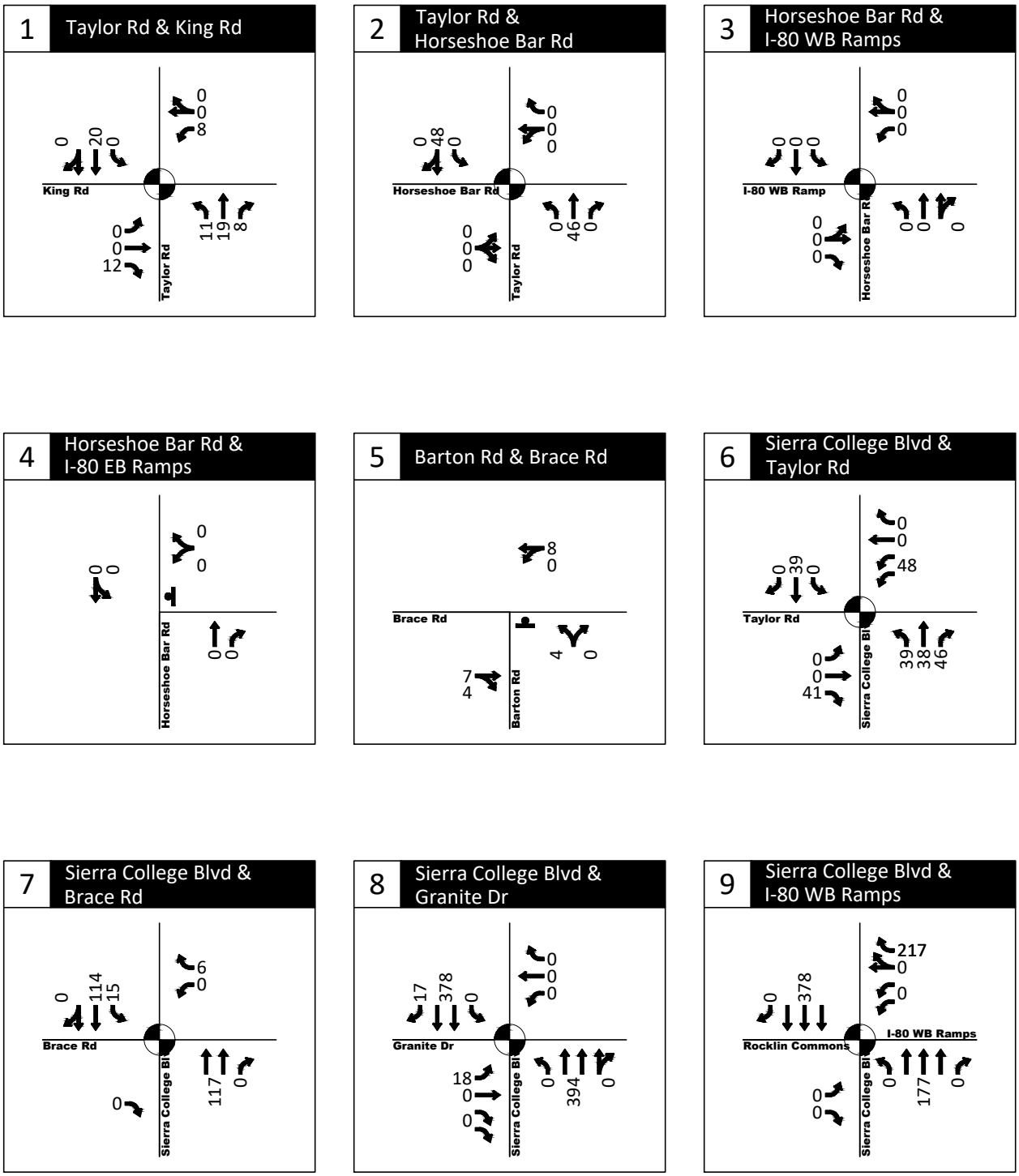
Note: Intersection #37 volumes includes trips to the adjacent apartment use to account for shared access at the proposed driveway.

AM(PM) - Weekday Traffic Volume

- Stop Sign
- Traffic Signal

Project Trip Assignment
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure 11E



- Weekend Midday Traffic Volume

- Stop Sign

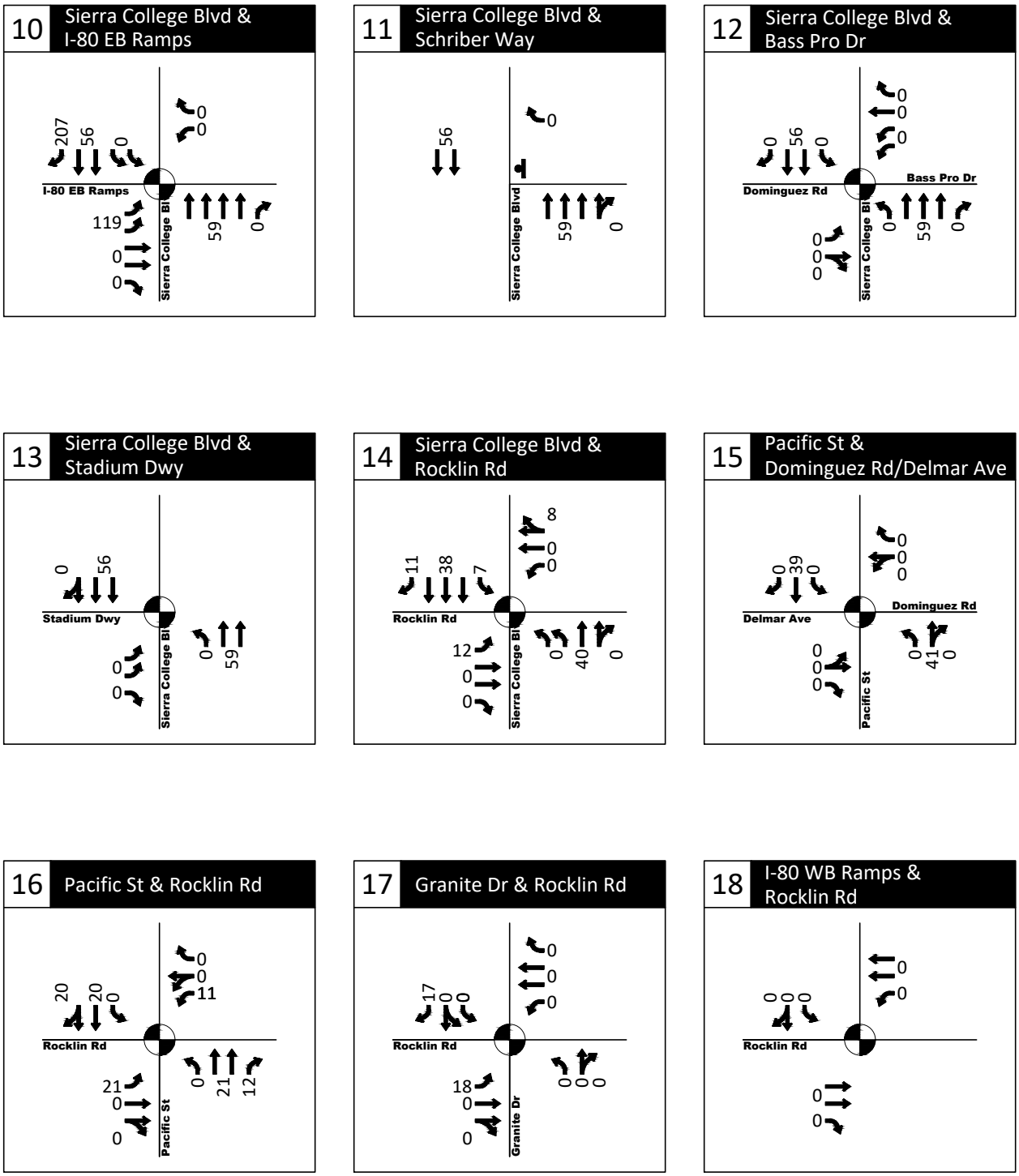
- Traffic Signal

Project Trip Assignment

Weekend Midday Peak Hour - Project Driveway Option 1A

Loomis, California

Figure 12A



- Weekend Midday Traffic Volume

- Stop Sign

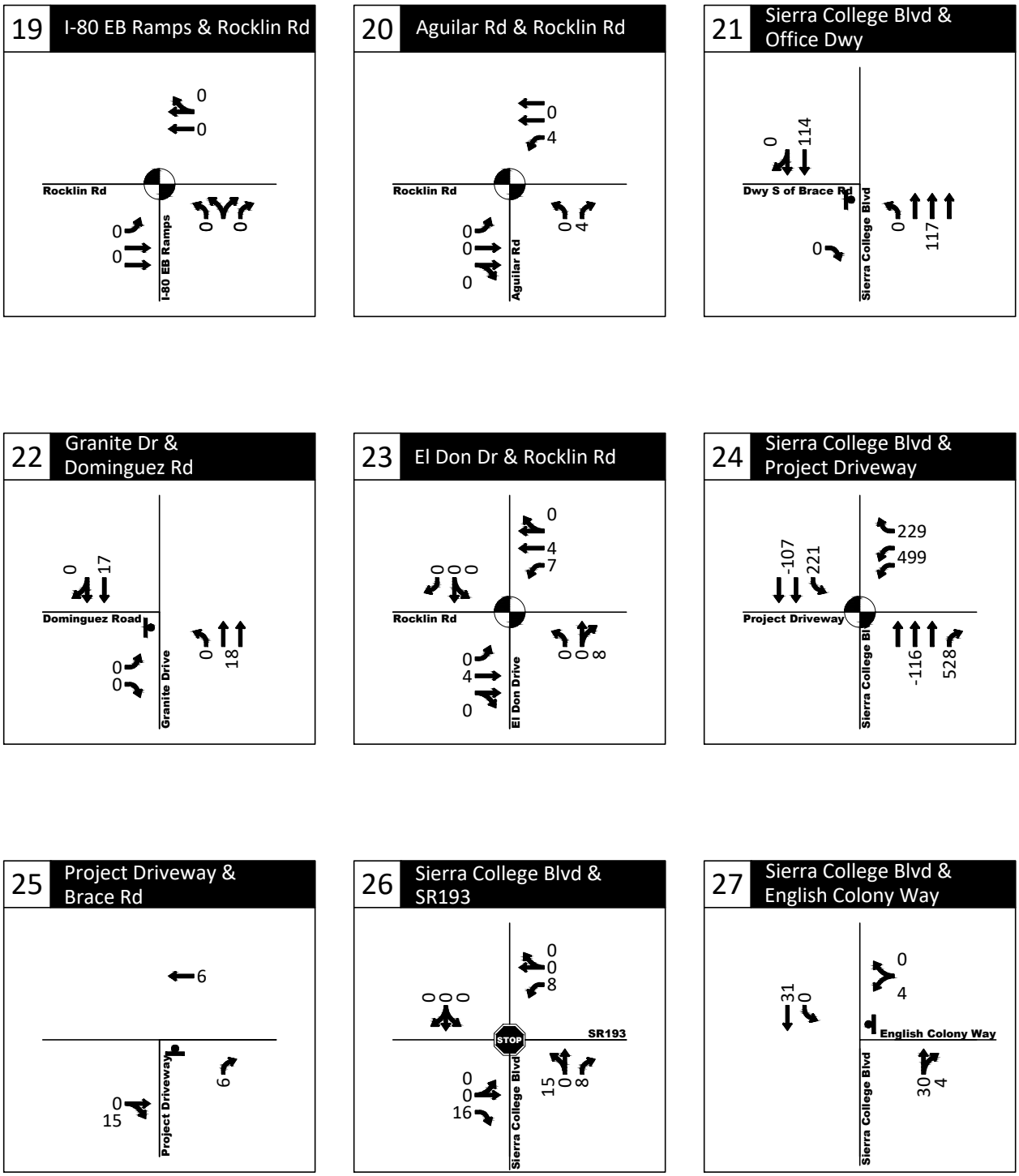
- Traffic Signal

Project Trip Assignment

Weekend Midday Peak Hour - Project Driveway Option 1A

Loomis, California

Figure 12B



- Weekend Midday Traffic Volume

- Stop Sign

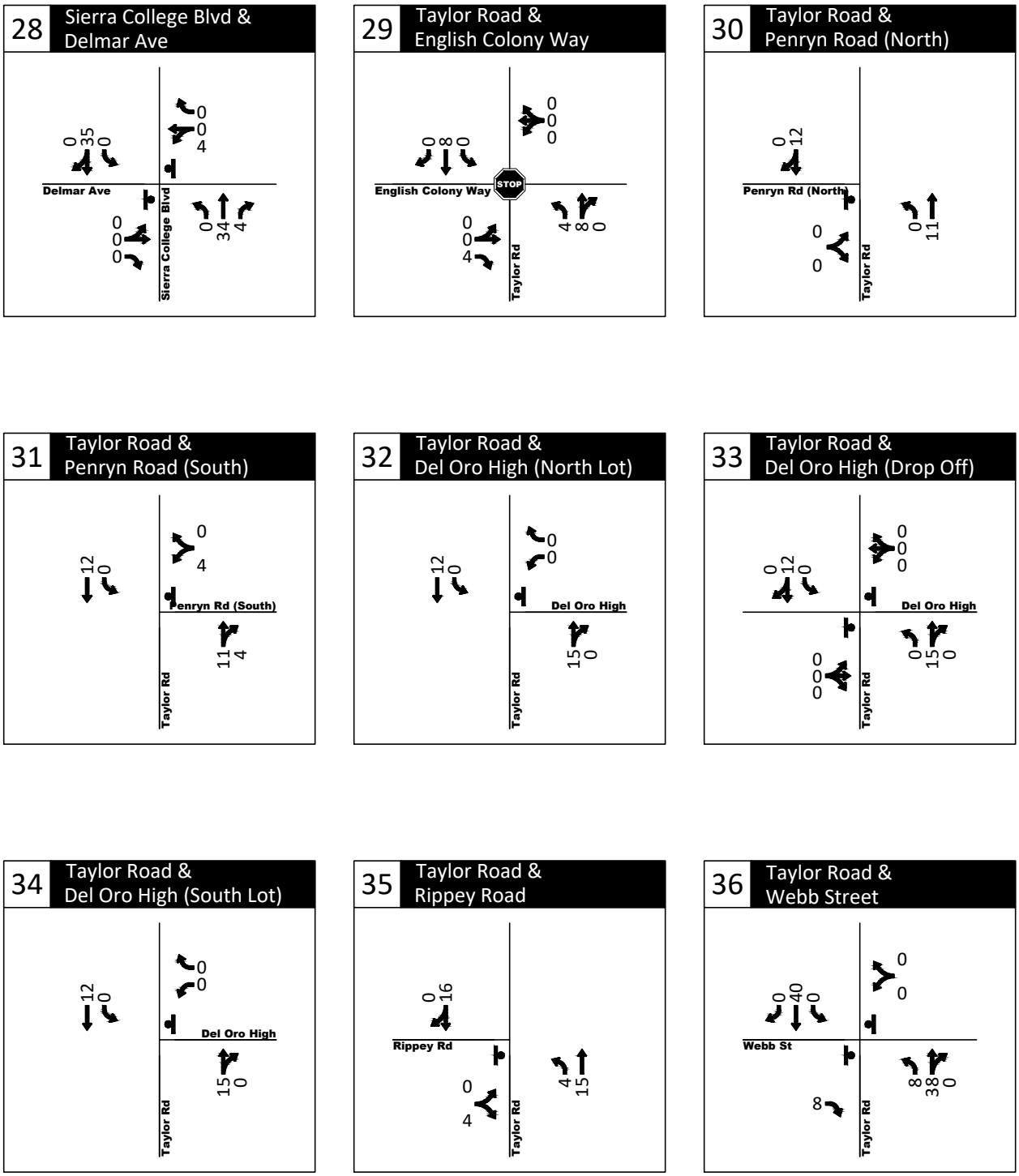
- Traffic Signal

Project Trip Assignment

Weekend Midday Peak Hour - Project Driveway Option 1A

Loomis, California

Figure 12C



- Weekend Midday Traffic Volume

- Stop Sign

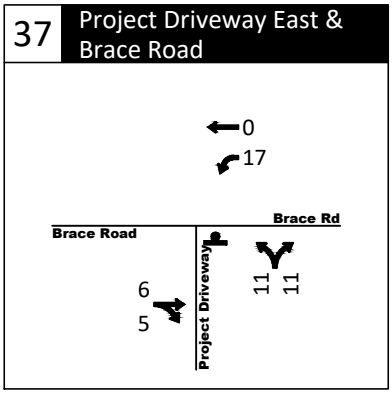
- Traffic Signal

Project Trip Assignment

Weekend Midday Peak Hour - Project Driveway Option 1A

Loomis, California

Figure
12D



Note: Intersection #37 volumes includes trips to the adjacent apartment use to account for shared access at the proposed driveway.

- Weekend Midday Traffic Volume

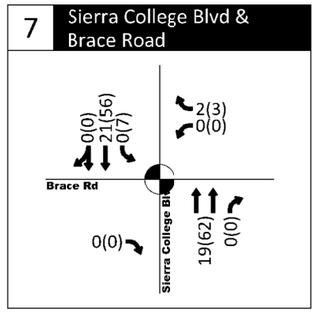
- Stop Sign

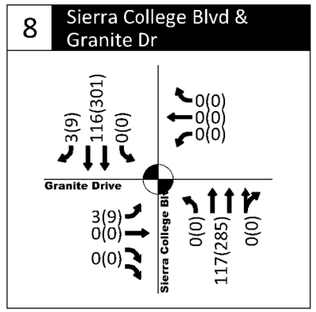
- Traffic Signal

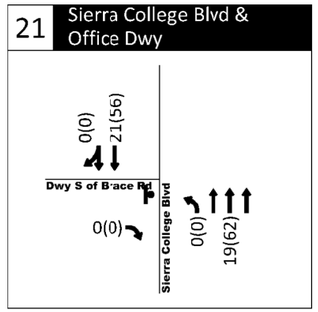
Project Trip Assignment
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

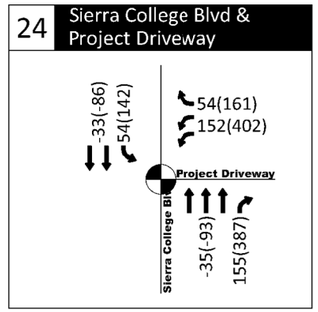
Figure
12E

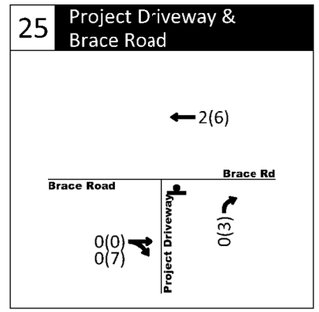
OPTION 1A

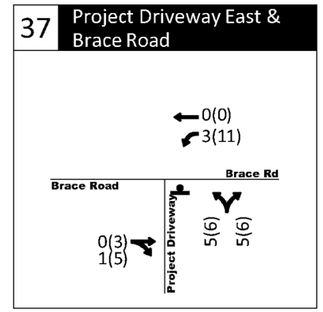




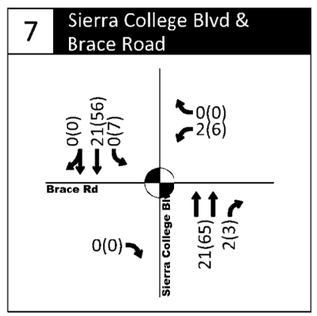


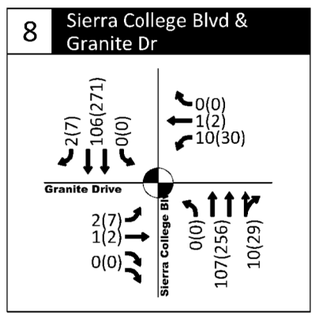


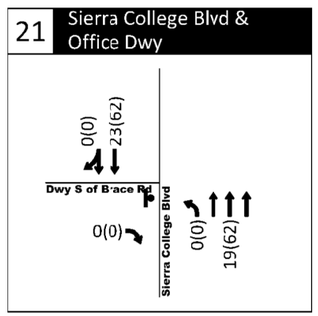


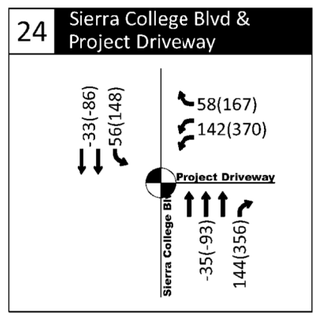


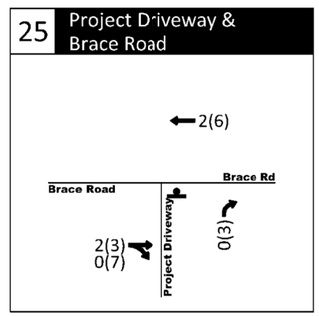
OPTION 1B



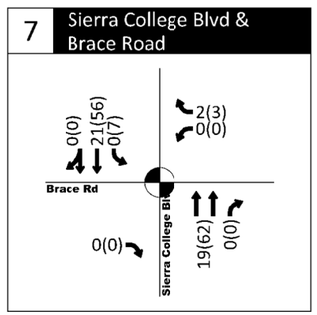


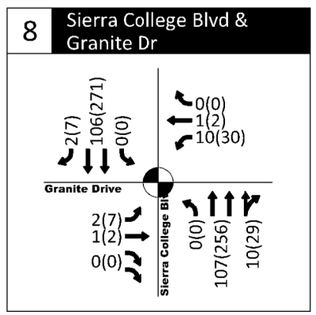


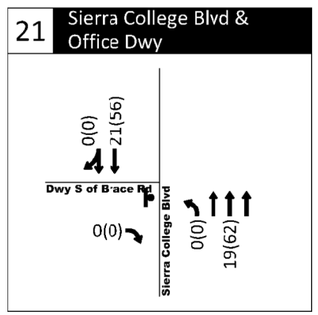


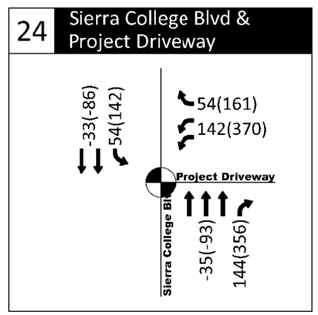


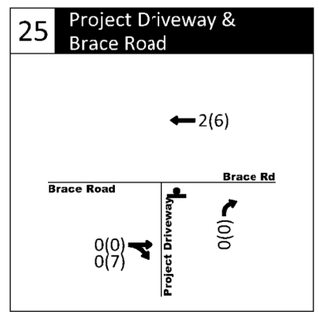
OPTION 1C

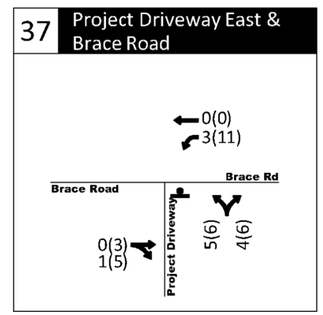












AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Project Trip Assignment
Weekday AM & PM Peak Hours - Project Driveway Option 1B & 1C
Loomis, California

Figure 13

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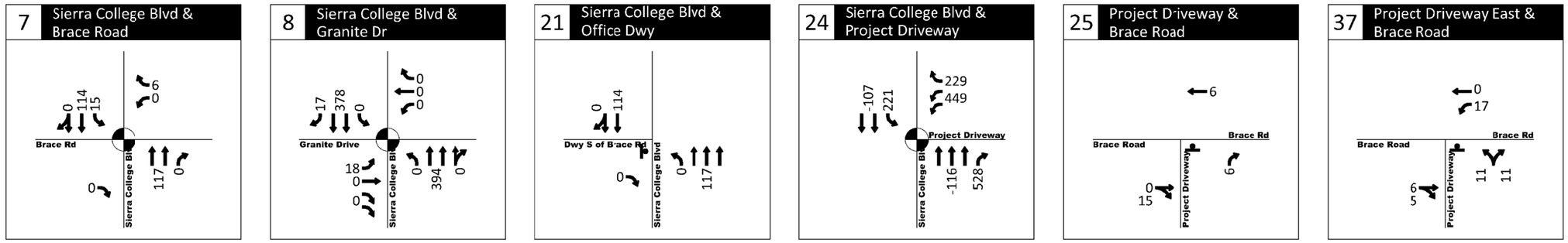
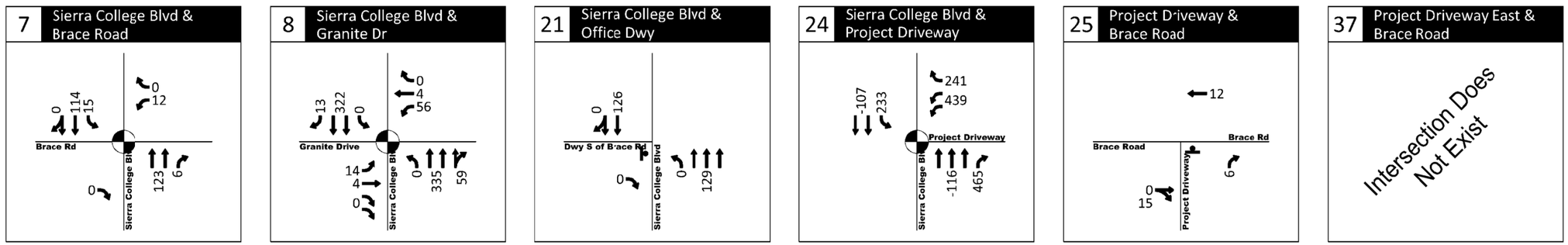
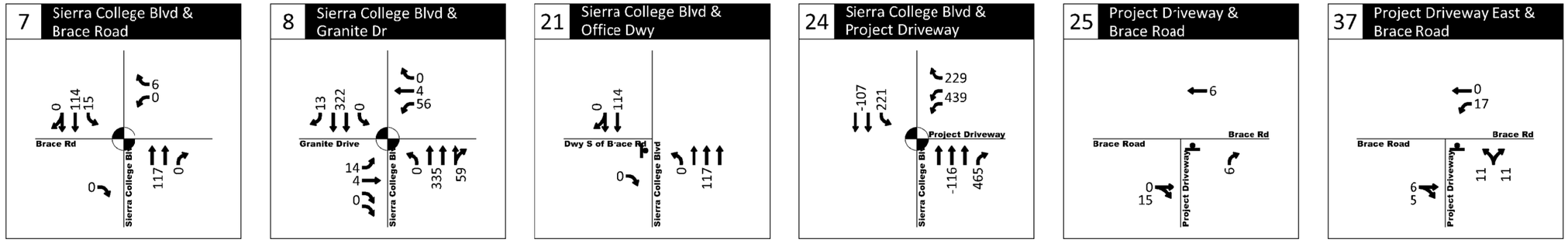
OPTION 1A



OPTION 1B



OPTION 1C



- Weekend Traffic Volume
- Stop Sign
- Traffic Signal

Project Trip Assignment
Weekend Midday Peak Hour - Project Driveway Option 1B & 1C
Loomis, California

Figure 14

KITTELSON & ASSOCIATES

5.5 TRUCK DELIVERY CONSIDERATIONS

As described in Section 5.1 of this report, publicly accessible driveways are proposed to serve the Project site.

The right-in/right-out Brace Road driveway was designed to serve Costco members as well as deliveries. Warehouse delivery trucks would enter the Project site via Brace Road, complete the delivery and subsequently exit the site at the new signalized Project access along Sierra College Boulevard for each of the three Project driveway options evaluated in this study. The proposed northbound right-turn lane on Sierra College Boulevard at Brace Road will facilitate truck entry.

Costco Gasoline delivery trucks would enter and exit the site via the new signalized Project access along Sierra College Boulevard for Project Driveway Option 1A, completing a counter-clockwise rotation through the Project site. Project Driveway Options B and C would route the Costco Gasoline truck into the Project site via the new signalized Project access along Sierra College Boulevard and would involve an exit path to Granite Drive. Similar to the Brace Road delivery truck access route, the proposed northbound right-turn lane on Sierra College Boulevard at the Project access will facilitate Costco Gasoline truck entry for all three Project driveway options.

On-site circulation was evaluated for adequate maneuverability for passenger vehicles as well as delivery trucks and emergency vehicles. The AutoTurn software application was used to evaluate maneuverability of larger trucks throughout the site as shown on the site plan as shown in Figure 6D. The Project access driveways have adequate widths and curve radii to accommodate delivery trucks and member vehicles.

Adequate sight lines should be provided at the internal intersections and site access points to provide conformance with Town of Loomis standards.

Warehouse Deliveries

Costco anticipates an average of about 10-13 Costco trucks a day delivering goods to the Costco Warehouse. The Costco trucks typically measure up to approximately 70 feet long for double-axle trailers. Typical receiving time is from 2:00 AM to 1:00 PM, averaging two to three trucks per hour, with most of the deliveries completed before the 10:00 AM warehouse opening time. Deliveries to the warehouse are made primarily in Costco trucks from its freight consolidation facility in Tracy, California. In addition to the Costco depot trucks, deliveries such as bread are expected to be made by local vendors using single unit trucks and/or single-axle trailers.

Costco Gasoline Deliveries

Costco anticipates that the Costco Gasoline fuel station will receive five to seven fuel deliveries per day on average. During busy holiday weeks, an additional delivery is often required during the day. These deliveries occur any time between 6:00 AM and 7:00 PM.

5.5.1 Costco Gasoline Site Queuing Needs

The proposed site plan locates the proposed inbound (one-way) access to the Costco Gasoline fuel station approximately 155 feet east of Sierra College Boulevard (measured from Sierra College Boulevard curb to west driveway curb) along the Project entrance within the Project site. On-site queuing associated with the Costco Gasoline area was assessed to determine whether fuel station operations would impact the Project entrance as described below.

Costco Fuel Station Operations

By way of introduction, Costco Gasoline fuel stations all function as ancillary uses to the main Costco warehouses that share their sites. The fuel stations can only be accessed by members and require a Costco membership card to activate the pumps for dispensing gasoline. Payment can only be made with a credit card and, unlike traditional gas/service station operations, there are no other automotive services (such as repairs) or other type of sales (including food or sundries) associated with the Costco Gasoline fuel station. All Costco Gasoline fuel stations have a minimum of one attendant working during all operating times who is responsible for expediting members' use of the fuel pumps, directing entering vehicles to open pump locations, and managing on-site queues from the pumps.

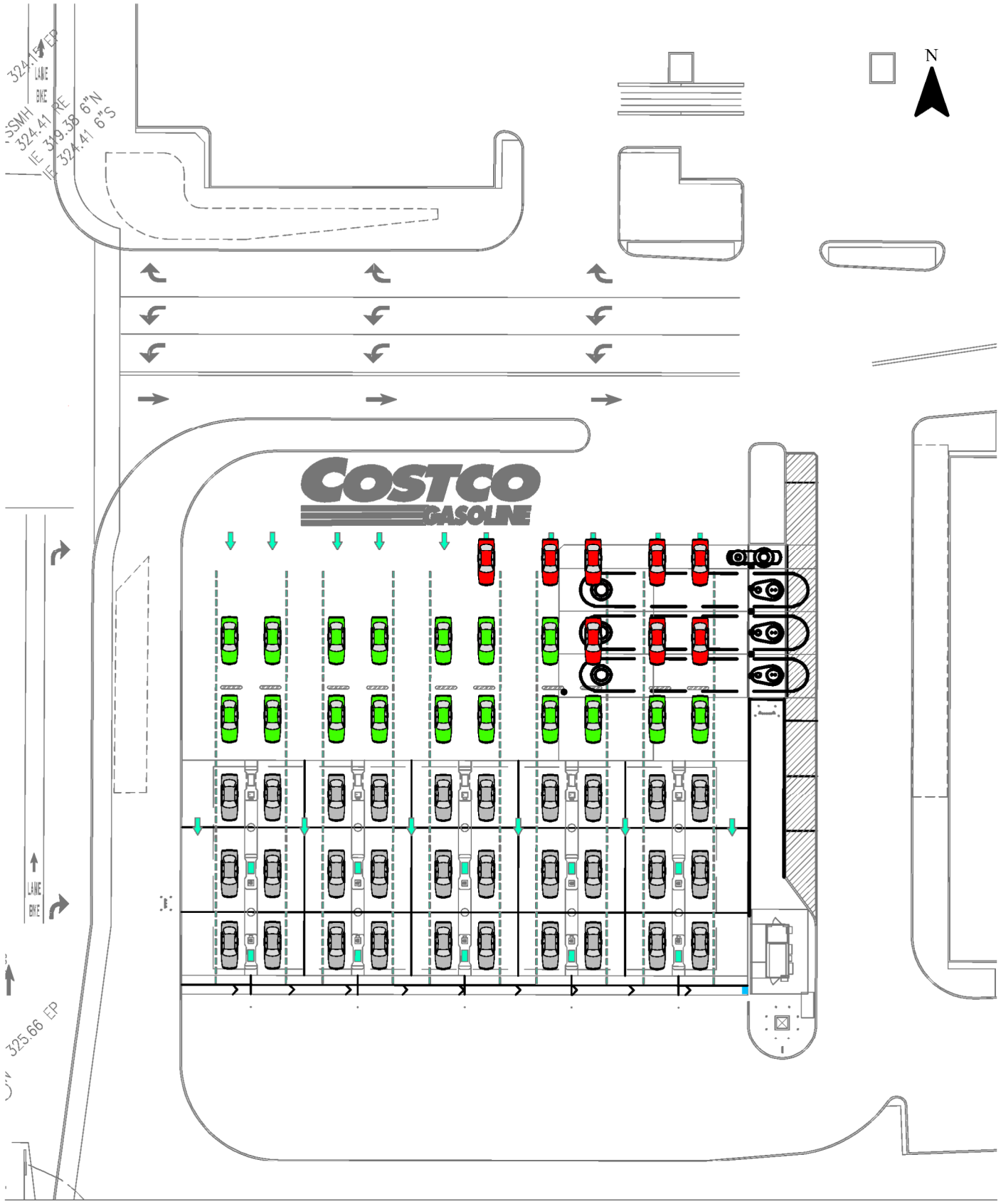
On-Site Queuing

The proposed Costco Gasoline fuel station area at the Loomis site would initially provide five islands (10 fueling aisles) with four fueling positions each, offering a total of 20 fueling positions where vehicles can simultaneously purchase fuel. The site plan is expandable, adding a third row of fuel dispensers that would result in a total of 30 fueling positions.

Based on the current site plan, the queueing area beyond the pumps extending toward the primary entry aisle from Sierra College Boulevard measures approximately 80 feet, assuming all 30 fuel dispensers are in operation.

Vehicular queuing data has been collected at other representative Costco Gasoline fuel station sites to provide reliable information related to the anticipated queues for the proposed facility. Table 14 summarizes the five comparable locations[9].

[9] Queuing data was collected in 2016 and 2017 at Costco Gasoline sites each having 24 fueling positions (largest fuel facility sites with available data). The locations shown represent the largest and busiest Costco Gasolines in California for which data is available as well as a site in Portland, Oregon that has the highest Costco sales in the state (in part reflecting proximity to nearby Washington State where sales and fuel taxes are higher). Therefore, they are considered representative of the Project's fuel station.



- 50th Percentile Queue
- 95th Percentile Queue

Each vehicle assumed to occupy 25 feet.

Costco Gasoline Fuel Station Queueing (Weekend Peak)
Loomis, California

Figure 15

Observed queues were reported for maximum, average, and 95th percentile scenarios during both the weekday PM peak hour and during a weekend midday peak. The 95th percentile queue is defined to be the queue length (in vehicles) that has only a 5-percent probability of being exceeded during the analysis time period. The industry standard methodology for queuing analysis considers the 95th percentile queues.

Table 14: Costco Gasoline Queuing Observations

Location	Dates Collected	Size (pumps)	Weekday PM Peak Queue					Weekend Midday Peak Queue				
			Volume	Min	Max	Average	95th	Volume	Min	Max	Average	95th
Tustin II, CA	7/28/16 & 7/30/16	22	662	11	35	26	34	610	14	38	29	35
Rohnert Park, CA	8/18/16 & 8/20/16	24	498	0	8	3	7	632	0	22	8	16
Concord, CA	8/25/16 & 8/27/16	24	550	0	10	3	8	700	11	32	19	28
NE San Jose, CA	2/9/17 & 2/11/17	24	458	6	6	1	3	686	10	31	20	29
Portland, OR	2/9/17 & 2/11/17	24	404	0	12	3	8	616	2	20	10	16
Average		24	514	3	14	7	**12**	649	7	29	17	**25**

As shown in Table 14, the highest recorded 95th percentile queue was 35 vehicles observed at the Tustin II Costco Gasoline site during the weekend midday peak period while the lowest 95th percentile queue was 16 vehicles and was observed at both the Portland and Rohnert Park Costco Gasoline sites. The average 95th percentile queue for all five sites is 25 vehicles.

Extrapolating the observed data to the 30-fueling position configuration proposed at Loomis and assuming each queued vehicle occupies 25 feet, each lane leading to a fueling position can store up to three vehicles (75 feet) without impacting the primary entry aisle from Sierra College Boulevard (not counting the vehicles at the fuel pump position). With ten fueling aisles each holding three vehicles, the queue storage area between the fuel pumps and primary entry aisle from Sierra College Boulevard can accommodate at least 30 vehicles before affecting operations at the drive aisle. The 30 available spaces would be in excess of the average 95th percentile queue observed at the five Costco Gasoline sites (25 vehicles). In addition, the five sites studied were limited to fewer fueling positions (24 vs. 30) which suggests queues at the proposed Project site should be shorter given the ability to fuel more vehicles simultaneously at the Project site.

Figure 15 illustrates the available queue storage area and the projected queues. As shown in the figure, the proposed Loomis Costco Gasoline fuel station site plan provides sufficient storage to accommodate the average 95th percentile queue anticipated without interference to the on-site drive aisle that leads to Sierra College Boulevard.

5.6 PROJECT VMT CALCULATION

Per the request of Caltrans District 3 staff, a general project-based Vehicle Miles Traveled (VMT) calculation was conducted for informational purposes and is documented in this section[10]. The request for VMT information stems from the State of California Senate Bill 743, which mandates a change in the way that public agencies evaluate transportation impacts of projects under the California Environment Quality Act.

The Governor's Office of Planning and Research has prepared the Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) published November 2017 to provide an initial alternative approach to evaluating project effects on the transportation system. The Technical Advisory provides the following guidelines specific to retail projects:

- Lead agencies should usually analyze the effects of a retail project by assessing the change in total VMT, because a retail project typically re-routes travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns.
- Recommended threshold for retail projects: A net increase in total VMT may indicate a significant transportation impact.
- Because new retail development typically redistributes shopping trips rather than creating new trips, estimating the total change in VMT (i.e. the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project's transportation impacts.
- By adding retail opportunities to the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Lead agencies generally, therefore, may presume such development creates a less than significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, might tend to have a significant impact. Where such development decreases VMT, lead agencies may consider it to have a less than significant impact.
- Many cities and counties define local-serving and regional-serving retail in their zoning codes. Lead agencies may refer to those local definitions when available, but should also consider any project-specific information, such as market studies or economic impacts analyses that might bear on customers' travel behavior. Because lead agencies will best understand their own communities and the likely travel behaviors of future project users, they are likely in the best position to decide when a project will likely be local serving. Generally, however, development including stores larger than 50,000 square feet might be considered regional-serving, and so lead agencies should undertake an analysis to determine whether the project might increase or decrease VMT.

[10] It should be noted that VMT evaluation is not an adopted methodology for determining significant impacts.

5.6.1 VMT Estimate Overview

At the time this report was prepared, no VMT evaluation methodology had been established by the lead agency (Town of Loomis) nor the City of Rocklin, Placer County or Caltrans. As such, a VMT assessment was prepared for informational purposes as described below considering the guidance enumerated by the Technical Advisory. The VMT estimate reflects factors including the anticipated site trip generation and distribution, Project membership, as well associated VMT changes at the existing Roseville Costco site. The VMT estimate development process included:

- assessment of Project trip generation
- assessment of Project trip length based on Costco member location
- assessment of anticipated growth in Costco membership at both the Project site and the existing Roseville Costco site
- estimation of Project site VMT associated with Costco members derived by adding the VMT associated with Project primary, diverted, and pass-by trips new to the surrounding roadway network
- estimating latent demand at the Roseville Costco site and adding that additional VMT to account for potential new trips to the Roseville Costco site
- combining the VMT for the Project site and the Roseville Costco site to develop a total new regional VMT
- adding VMT based on the regional trip length estimate to account for new Costco employees trips

In addition to the steps above, a trip length reduction associated with the opening of the Project site was estimated to document the potential VMT reduction that may be realized at the Roseville Costco site when some existing Roseville member trips re-route to the Project site. As will be described below, the total new VMT for the Project combined with new members to the Roseville site is estimated to be less than the overall regional VMT reduction realized at the existing Roseville site. Appendix “F” includes the analysis details.

5.6.2 Trip Generation and Trip Length

The total average daily trip generation for the Project is approximately 12,290 trips. As previously documented in Section 5.2, a significant number of these trips are pass-by and diverted trips (refer to Table 12). Pass-by trips are already on the roadway network and simply turn in and out of the Project site thereby not contributing additional mileage to the roadway network. Diverted trips are already on the roadway network and turn from a major route to access the site. For the purposes of this study, diverted trips were assumed to travel between the I-80 ramps and the Project site (approximately 0.5 mile). Trip generation for the Project site accounts for all trips to and from the site (members, employees, and deliveries).

A Costco Wholesale membership database-derived trip length for the Project site was estimated to be approximately 22 miles (average distance from member address to the Project site)[11]. The 22-miles estimate reflects only member trips.

Projected Costco Membership Growth

Due to the proximity of the Roseville Costco warehouse and proposed Project warehouse in Loomis, the market share projections provided by Costco Wholesale shows significant redistribution of existing members between the two sites. The Costco market projections estimate a total regional membership of 104,200 for both the Roseville and Loomis warehouses. Of these members 9,100 are projected to be new members (approximately 8.7 percent of the total membership). The remaining 95,100 members are existing members who are currently visiting the Roseville site and are already traveling on the regional transportation network.

5.6.3 VMT Projection

The following analysis is provided for informational purposes only, as the Town of Loomis has not yet adopted a VMT methodology or significance threshold.

Loomis Site VMT Projection

Projected VMT was estimated for the Loomis site using the Project trip generation estimates by trip type along with corresponding trip length as shown in Table 15.

Table 15: Estimated New Costco Daily VMT for Project Site

Trip	Average Trip Length (miles)	Project Daily Trips[1]	New Trips to Roadway Network (8.7%)	Estimated New CostcoVMT[2]
Costco Wholesale Membership Data	22.0	4,330	375	8,250 miles
Pass-by Trips	0.0	4,090	355	-
Diverted Trip Length[3]	0.5	3,870	335	170 miles
Estimated VMT				**8,420 miles**

Notes:
[1]Based on the average Costco trip characteristics in Table 12
[2] Estimated VMT reflects average trip length × Project daily trips
[3] Reflects assumed diverted trip length from I-80 to the Project site
Source: Kittelson & Associates, Inc. 2019

[11] Costco Wholesale provided the zip code location of existing and potential new members that would likely use the proposed warehouse in Loomis. A ratio was developed for each zip code to the total members being served by the proposed Costco Warehouse. With the general location of members by zip code known, a trip length of was estimated from the proposed Project site to the centroid of each zip code polygon using a GIS tool. The weighted average of all trip lengths shows the average trip length from the Project site for members is approximately 22 miles.

As shown, the projected VMT increase attributable to the Project site is 8,420 miles. This estimate does not reflect a potential reduction in VMT associated with re-routing of Costco member trips that currently are made to the Roseville site but that may transfer to the Project site out of convenience/shorter travel distance.

Roseville Site VMT Projection

Latent demand is expected to be realized at the Roseville warehouse as it becomes less crowded with the new Loomis Project opening and new Costco members shop the existing warehouse. To account for new members at the existing Roseville warehouse, VMT was also estimated for potential new trips to the Roseville site. Similar to the format of Table 15, Table 16 summarizes the projected new VMT for the Roseville site. The daily trip estimates shown were developed using the Costco average trip rates in Table 11. Trip lengths were based on the Costco Wholesale membership data assuming development of Project.

Table 16: Estimated New Costco Daily VMT for Roseville Site

Trip	Average Trip Length (miles)	Daily Trips[1]	New Trips to Roadway Network (8.7%)	Membership Estimated VMT[2]
Costco Wholesale Membership Data[3]	7.2	3,815	330	2,375 miles
Pass-by Trips	0.0	3,620	315	0 miles
Diverted Trip Length[4]	0.5	3,425	300	150 miles
Estimated VMT				**2,525 miles**

Notes:
[1] Based on the average Costco trip characteristics in Table 11 (same database as Project site) and a warehouse size of 136,954 square feet.
[2] Estimated VMT reflects average trip length × daily trips
[3] Trip lengths based on projected Costco market share for Roseville site assuming development of Project site (Project site development results in some longer distance trips currently shopping at Roseville shifting to the Project site in Loomis, resulting in a reduced average trip length compared to existing)
[4] Reflects assumed diverted trip length from SR-65 to the Roseville warehouse site
Source: Kittelson & Associates, Inc. 2019

Total Costco VMT Increase

Combining the VMT estimates in Tables 15 and 16 yields a total new daily regional VMT of approximately 10,945 miles (8,420 miles for Project site + 2,525 miles for Roseville site).

Recognizing the Costco membership database methodology described above does not account for trips made by Costco employees, additional VMT was calculated reflecting an average of 250 employees on-site per day and using the City of Rocklin Travel Demand Model trip length for commercial land uses[12]. The VMT generated by employees is estimated to be 3,900 miles (500 trips x 7.8 miles).

[12] The City of Rocklin 2030 Travel Demand Model was used to generate a select zone analysis for the traffic analysis zone (TAZ) that contains the Project. The resultant select zone analysis provides an estimated average one-way trip length for the Project of 7.8 miles.

In addition, Costco would have delivery trucks for the warehouse and fuel facility. Costco estimates 13 warehouse deliveries a day, most likely from their facility located in Tracy, California which is approximately 100 miles from the Project site. Therefore, the average daily VMT for warehouse deliveries would be 26 trips (13 trucks inbound and outbound) multiplied by 100 miles which is approximately 2,600 VMT. The 7 fuel delivery trucks per day are expected to travel between the Project site and the West Sacramento terminal location (identified by the Air Quality study). The West Sacramento terminal is located approximately 30 miles from the Project site and is located with the SACOG region. Therefore, the average daily VMT for fuel deliveries would be 14 trips (7 trucks inbound and outbound) multiplied by 30 miles which is approximately 420 VMT within the region. Total VMT for truck trips to the Project site is approximately 3,020 miles (2,600 miles by warehouse deliveries + 420 miles by fuel deliveries).

Therefore, the membership database methodology yields total new daily VMT of 17,865 miles (10,945 miles + 3,900 miles + 3,020 miles).

Potential Regional VMT Reduction

The proposed Costco warehouse would be located approximately 5 miles north of the existing Roseville Costco warehouse. Based on Costco membership data, an estimated 31 percent of existing Roseville Costco members are located north of the Project site. These members to the north could realize a trip length reduction of approximately 5 miles by switching membership from the Roseville site to the Project site, benefiting the transportation system with a VMT reduction.

Final VMT

In summary, total new daily VMT for the Project and new members to the Roseville site is estimated to be 17,865 miles. A VMT reduction could be realized as a function of the shorter trip length experienced by the 31 percent of existing Roseville Costco members who shorten their shopping trip length by changing membership to and shopping at the Project site.

Section 6
Existing plus Project Conditions

6.0 EXISTING PLUS PROJECT CONDITIONS

The Existing plus Project traffic conditions analysis forecasts how the study area's transportation system would operate with the addition of traffic generated by the proposed Project. The proposed roadway infrastructure improvements as outlined in Section 5.1.2 would be constructed in this condition.

6.1 INTERSECTION EVALUATION

Existing conditions traffic volumes for the weekday AM and PM and weekend midday peak hours were added to the site-generated traffic to arrive at the total traffic volumes. Figure 16 shows the Existing Plus Project (Project Driveway Option 1A) traffic condition during weekday AM and PM peak hours and Figure 17 shows the Existing Plus Project (Project Driveway Option 1A) traffic condition during weekend midday peak hour.

The site-generated trip assignment with Project Driveway Options 1B and 1C results in different existing plus Project peak hour traffic volumes at study intersections 7, 8, 21, 24, 25, and 37 due to the routing of site trips to the driveways. All other study intersections would have the same Existing Plus Project traffic volumes under Project Driveway Options 1B and 1C as they would under Project Driveway Option 1A. Figure 18 shows the Existing plus Project traffic condition during weekday AM and PM peak hours for all three Project driveway options at those study intersections affected by the driveway options. Similarly, Figure 19 shows the Existing Plus Project traffic condition during weekend midday peak hour for all three Project driveway options at those study intersections affected by the driveway options.

6.1.1 Level-of-Service Analysis

To gauge the impact of the Project traffic on the existing roadway network, the Project analysis assumed that signal timings would be unchanged from those in existing baseline conditions except at study locations where the Project provides geometric improvements.

Project Driveway Option 1A

Table 17 shows the baseline Existing No-Project and Plus Project (Project Driveway Option 1A) delays for and LOS for the study intersections during weekday AM and PM peak hours. Table 18 shows the baseline Existing No-Project and Plus Project (Project Driveway Option 1A) delays and LOS for the study intersections during the weekend midday peak hour.

As shown in Table 17 and Table 18, the following intersections operate at unacceptable LOS:

- Horseshoe Bar Road & I-80 Eastbound Ramp (AM and PM)
- Sierra College Boulevard & Taylor Road (PM)
- Sierra College Boulevard & Rocklin Road (AM and PM)
- Pacific Street & Dominguez Road/Delmar Avenue (PM)

- Pacific Street & Rocklin Road (AM)
- Granite Drive & Rocklin Road (AM, PM, and MD)
- El Don Drive & Rocklin Road (AM)
- Sierra College Boulevard & SR-193 (PM)
- Sierra College Boulevard & Delmar Avenue (AM, PM, and MD)
- Taylor Road & Penryn Road (South) (AM)
- Taylor Road & Del Oro High School North Lot (AM)
- Taylor Road & Del Oro High School Drop Off (AM)
- Taylor Road & Del Oro High School South Lot (AM)
- Taylor Road & Webb Street (PM and MD)

Based on the impact criteria defined earlier, the following intersections would be significantly impacted by the proposed Project (Project Driveway Option 1A):

- Sierra College Boulevard & SR-193 (PM)
- Taylor Road & Penryn Road (South) (AM)
- Taylor Road & Webb Street (MD)

Appendix “B” includes the level-of-service worksheets.

Table 17: Existing Plus Project - Intersection LOS Analysis, Weekday AM/PM Peak Hour – Project Driveway Option 1A

ID	Intersection	Traffic Control Type	Weekday AM					Weekday PM				
			Existing		Plus Project		Change in Delay (sec)	Existing		Plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS		Delay (sec)	LOS	Delay (sec)	LOS	
1	Taylor Rd/ King Rd	Signal	33.3	C	33.8	C	0.5	37.7	D	39.4	D	1.7
2	Taylor Rd/ Horseshoe Bar Rd	Signal	30.3	C	31.2	C	0.9	26.3	C	27.2	C	0.9
3	Horseshoe Bar Rd/ I-80 Westbound Ramp	Signal	13.8	B	13.8	B	0.0	14.0	B	14.0	B	0.0
4	Horseshoe Bar Rd/ I-80 Eastbound[1] Ramp	TWSC	**70.2**	**F**	**70.2**	**F**	0.0	**68.2**	**F**	**68.2**	**F**	0.0
5	Barton Rd/ Brace Rd	TWSC	10.8	B	10.9	B	0.1	10.7	B	10.9	B	0.2
6	Sierra College Blvd/Taylor Rd	Signal	31.8	C	32.8	C	1.0	**38.3**	**D**	**41.6**	**D**	3.3
7	Sierra College Blvd/Brace Rd	Signal	9.7	A	13.2	B	3.5	10.7	B	14.1	B	3.4
8	Sierra College Blvd/Granite Dr	Signal	24.4	C	24.8	C	0.4	27.1	C	28.3	C	1.2
9	Sierra College Blvd/I-80 WB	Signal	13.2	B	13.7	B	0.5	19.0	B	27.1	C	8.1
10	Sierra College Blvd/I-80 EB	Signal	14.6	B	14.7	B	0.1	16.1	B	16.3	B	0.2
11	Sierra College Blvd/Schriber Way	TWSC	9.2	A	9.2	A	0.0	9.2	A	9.2	A	0.0
12	Sierra College Blvd/Bass Pro Dr-Dominguez Rd	Signal	6.5	A	6.5	A	0.0	7.5	A	7.5	A	0.0
13	Sierra College Blvd/Stadium Dwy	Signal	6.1	A	6.1	A	0.0	6.6	A	6.6	A	0.0
14	Sierra College Blvd/Rocklin Rd	Signal	**35.7**	**D**	**35.8**	**D**	0.1	**43.3**	**D**	**45.0**	**D**	1.7
15	Pacific St/ Dominguez Rd-Delmar Ave	Signal	15.4	B	15.7	B	0.3	**43.7**	**D**	**44.2**	**D**	0.5
16	Pacific St/ Rocklin Rd	Signal	**39.9**	**D**	**40.0**	**D**	0.1	33.7	C	34.2	C	0.5
17	Granite Dr/ Rocklin Rd	Signal	**40.7**	**D**	**40.9**	**D**	0.2	**50.8**	**D**	**52.1**	**D**	1.3
18	I-80 Westbound Ramps/ Rocklin Rd	Signal	20.4	C	20.4	C	0.0	38.8	D	38.8	D	0.0
19	I-80 Eastbound Ramps/Rocklin Rd	Signal	31.0	C	31.0	C	0.0	30.3	C	30.3	C	0.0
20	Aguilar Rd/ Rocklin Rd	Signal	10.4	B	10.5	B	0.1	8.1	A	8.2	A	0.1
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.3	A	0.3	A	0.0	12.6	B	12.9	B	0.3

ID	Intersection	Traffic Control Type	Weekday AM					Weekday PM				
			Existing		Plus Project		Change in Delay (sec)	Existing		Plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS		Delay (sec)	LOS	Delay (sec)	LOS	
22	Granite Dr/ Dominguez Rd	TWSC	11.7	B	11.8	B	0.1	12.8	B	13.0	B	0.2
23	El Don Dr/ Rocklin Rd	Signal	**35.8**	**D**	**35.8**	**D**	0.0	34.9	C	35.0	C	0.1
24	Sierra College Blvd/Project Driveway	Signal	DNE		6.5	A	-	DNE		11.3	B	-
25	Brace Road/ Project Driveway	TWSC	DNE		0.0	A	-	DNE		9.5	A	-
26	Sierra College Blvd/SR-193	AWSC	22.5	C	23.0	C	0.5	**43.1**	**E**	**45.8**	**E**	2.7
27	Sierra College Blvd/English Colony Way	TWSC	11.0	B	11.4	B	0.4	19.8	C	21.6	C	1.8
28	Sierra College Blvd/Delmar Av[2]	TWSC	**38.0**	**E**	**39.5**	**E**	1.5	**41.4**	**E**	**45.5**	**E**	4.1
29	Taylor Rd/English Colony Way	AWSC	21.4	C	21.5	C	0.1	13.2	B	13.4	B	0.2
30	Taylor Rd/Penryn Road (North)	TWSC	14.4	B	14.4	B	0.0	10.0	B	10.1	B	0.1
31	Taylor Rd/Penryn Road (South)	TWSC	**233.5**	**F**	**245.3**	**F**	11.8	15.5	C	16.1	C	0.6
32	Taylor Rd/Del Oro High School North[1] Lot	TWSC	**31.9**	**D**	**32.7**	**D**	0.8	12.0	B	12.2	B	0.2
33	Taylor Rd/Del Oro High School Drop-Off[1]	TWSC	**265.0**	**F**	**273.4**	**F**	8.4	14.1	B	14.3	B	0.2
34	Taylor Rd/Del Oro High School South[1] Lot	TWSC	**40.9**	**E**	**41.6**	**E**	0.7	15.7	C	15.9	C	0.2
35	Taylor Rd/ Rippey Road	TWSC	13.9	B	13.9	B	0.0	11.3	B	11.3	B	0.0
36	Taylor Rd/ Webb Street[1]	TWSC	21.4	C	21.8	C	0.4	**26.8**	**D**	**28.7**	**D**	1.9
37	Brace Road/ Project Driveway East	TWSC	DNE		10.0	B	-	DNE		9.3	A	-

Notes:
AWSC: All-way stop control – The average intersection delay is reported.

TWSC: Two-way stop control - delay reported reflects the critical movement.

DNE: Intersection does not exist under no Project conditions.

Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.

Shaded cell indicates Project impact

[1] An impact is significant in situations when the intersection is already operating at unacceptable LOS and the Project adds trips to the intersection exceeding 5% of the total traffic already at the intersection. At these locations, the project does not contribute 5% or more of the volumes.

[2] Intersection does not meet signal warrants for impacts condition, therefore per the Placer County guidelines, this intersection is not significantly impacted. Traffic signal warrants provided in Appendix J.

Source: Kittelson & Associates, Inc. 2019

Table 18: Existing Plus Project - Intersection LOS Analysis, Weekend Midday Peak Hour – Project Driveway Option 1A

ID	Intersection	Traffic Control Type	Existing		Plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS	
1	Taylor Rd/King Rd	Signal	21.8	C	23.1	C	1.3
2	Taylor Rd/Horseshoe Bar Rd	Signal	13.9	B	14.9	B	1.0
3	Horseshoe Bar Rd/I-80 Westbound Ramp	Signal	13.4	B	13.4	B	0.0
4	Horseshoe Bar Rd/I-80 Eastbound Ramp	TWSC	28.7	D	28.7	D	0.0
5	Barton Rd/Brace Rd	TWSC	12.2	B	12.6	B	0.4
6	Sierra College Blvd/Taylor Rd	Signal	25.0	C	28.1	C	3.1
7	Sierra College Blvd/Brace Rd	Signal	9.1	A	15.0	B	5.9
8	Sierra College Blvd/Granite Dr	Signal	22.6	C	23.7	C	1.1
9	Sierra College Blvd/I-80 WB Ramps	Signal	19.3	B	30.3	C	11.0
10	Sierra College Blvd/I-80 EB Ramps	Signal	16.5	B	16.6	B	0.1
11	Sierra College Blvd/Schriber Way	TWSC	10.3	B	9.9	A	-0.4
12	Sierra College Blvd/Bass Pro Dr-Dominguez Rd	Signal	8.7	A	8.5	A	-0.2
13	Sierra College Blvd/Stadium Dwy	Signal	4.4	A	4.3	A	-0.1
14	Sierra College Blvd/Rocklin Rd	Signal	24.9	C	25.9	C	1.0
15	Pacific St/Dominguez Rd-Delmar Ave	Signal	12.7	B	13.5	B	0.8
16	Pacific St/Rocklin Rd	Signal	19.6	B	20.3	C	0.7
17	Granite Dr/Rocklin Rd	Signal	43.7	D	**45.6**	**D**	1.9
18	I-80 Westbound Ramps/Rocklin Rd	Signal	20.6	C	20.6	C	0.0
19	I-80 Eastbound Ramps/Rocklin Rd	Signal	24.6	C	24.6	C	0.0
20	Aguilar Rd/Rocklin Rd	Signal	8.0	A	8.2	A	0.2
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.1	A	0.1	A	0.0
22	Granite Dr/Dominguez Rd	TWSC	12.5	B	12.9	B	0.4
23	El Don Dr/Rocklin Rd	Signal	13.7	B	14.1	B	0.4
24	Sierra College Boulevard/Project Driveway	Signal	DNE		14.5	B	-
25	Brace Road/Project Driveway	TWSC	DNE		9.2	A	-
26	Sierra College Blvd/SR-193	AWSC	19.7	C	21.5	C	1.8
27	Sierra College Blvd/English Colony Way	TWSC	12.2	B	13.2	B	1.0
28	Sierra College Blvd/Delmar Avenue[2]	TWSC	22.2	C	**25.4**	**D**	3.2
29	Taylor Rd/English Colony Way	AWSC	15.4	C	16.1	C	0.7
30	Taylor Rd/Penryn Road (North)	TWSC	10.2	B	10.3	B	0.1
31	Taylor Rd/Penryn Road (South)	TWSC	12.0	B	12.5	B	0.5

ID	Intersection	Traffic Control Type	Existing		Plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS	
32	Taylor Rd/Del Oro High School North Lot	TWSC	13.5	B	14.1	B	0.6
33	Taylor Rd/Del Oro High School Drop-Off	TWSC	19.4	C	21.0	C	1.6
34	Taylor Rd/Del Oro High School South Lot	TWSC	16.1	C	16.7	C	0.6
35	Taylor Rd/Rippey Road	TWSC	11.6	B	11.9	B	0.3
36	Taylor Rd/Webb Street	TWSC	**70.2**	**F**	**121.4**	**F**	51.2
37	Brace Road/Project Driveway East	TWSC	DNE		9.3	A	-

Notes:
AWSC: All-way stop control – The average intersection delay is reported.

TWSC: Two-way stop control - The delay reported reflects the critical movement.

DNE: Intersection does not exist under no Project conditions.

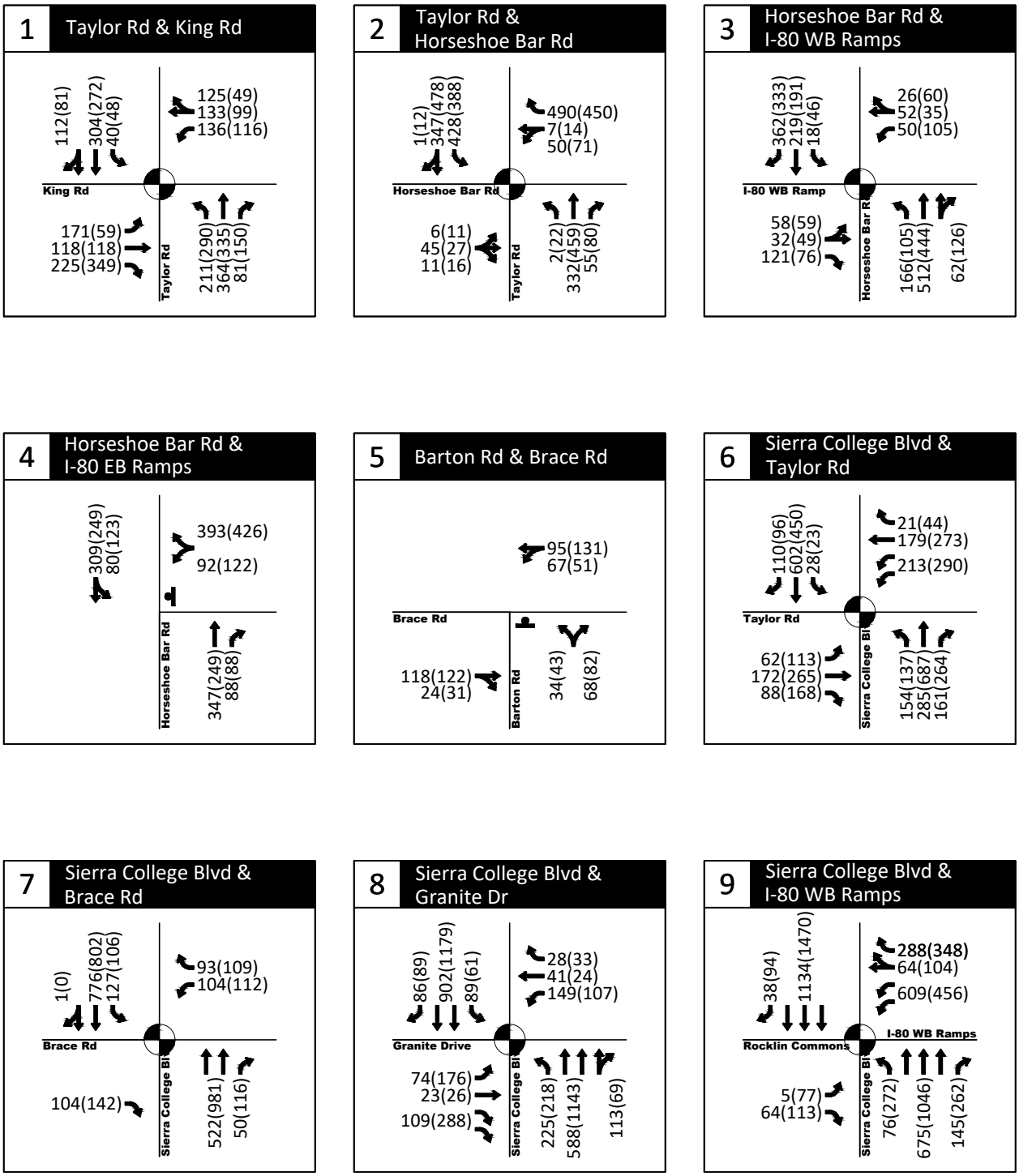
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.

Shaded cell indicates Project impact

[1] An impact is significant in situations when the intersection is already operating at unacceptable LOS and the Project adds trips to the intersection exceeding 5% of the total traffic already at the intersection. At these locations, the project does not contribute 5% or more of the volumes.

[2] Intersection does not meet signal warrants for impacts condition, therefore per the Placer County guidelines, this intersection is not significantly impacted. Traffic signal warrants provided in Appendix J.

Source: Kittelson & Associates, Inc. 2019



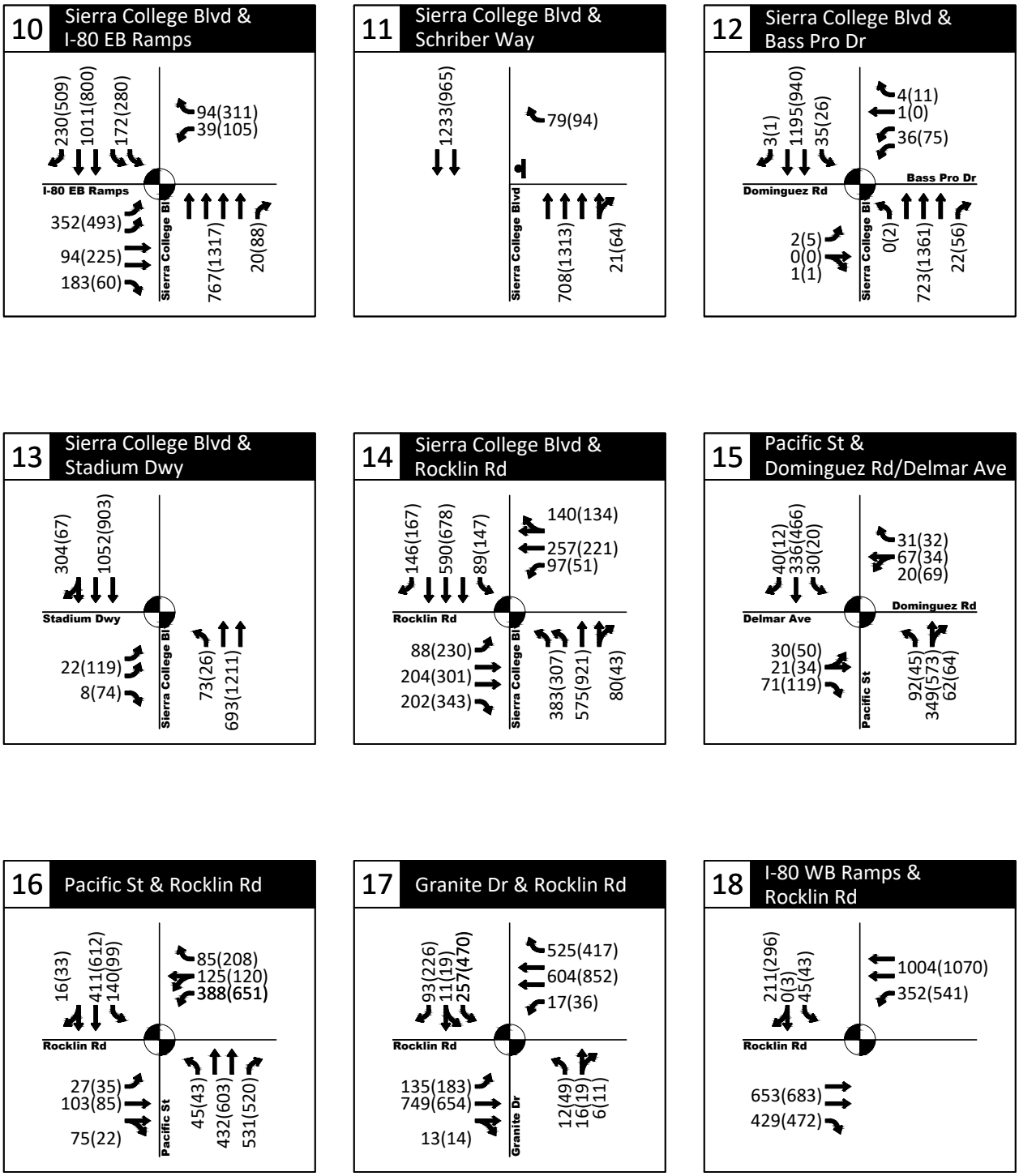
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
16A



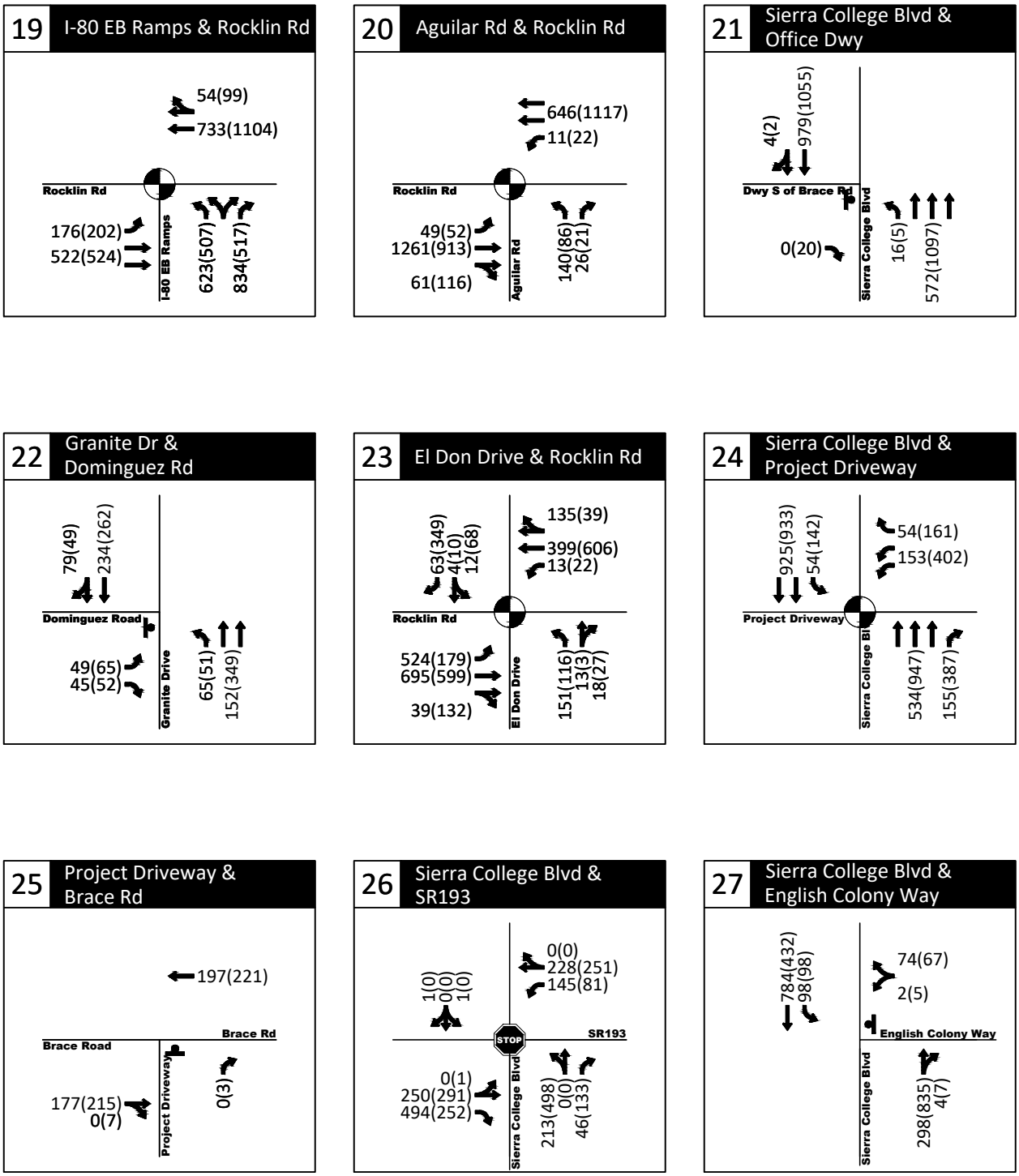
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
16B



AM(PM) - Weekday Traffic Volume

- Stop Sign

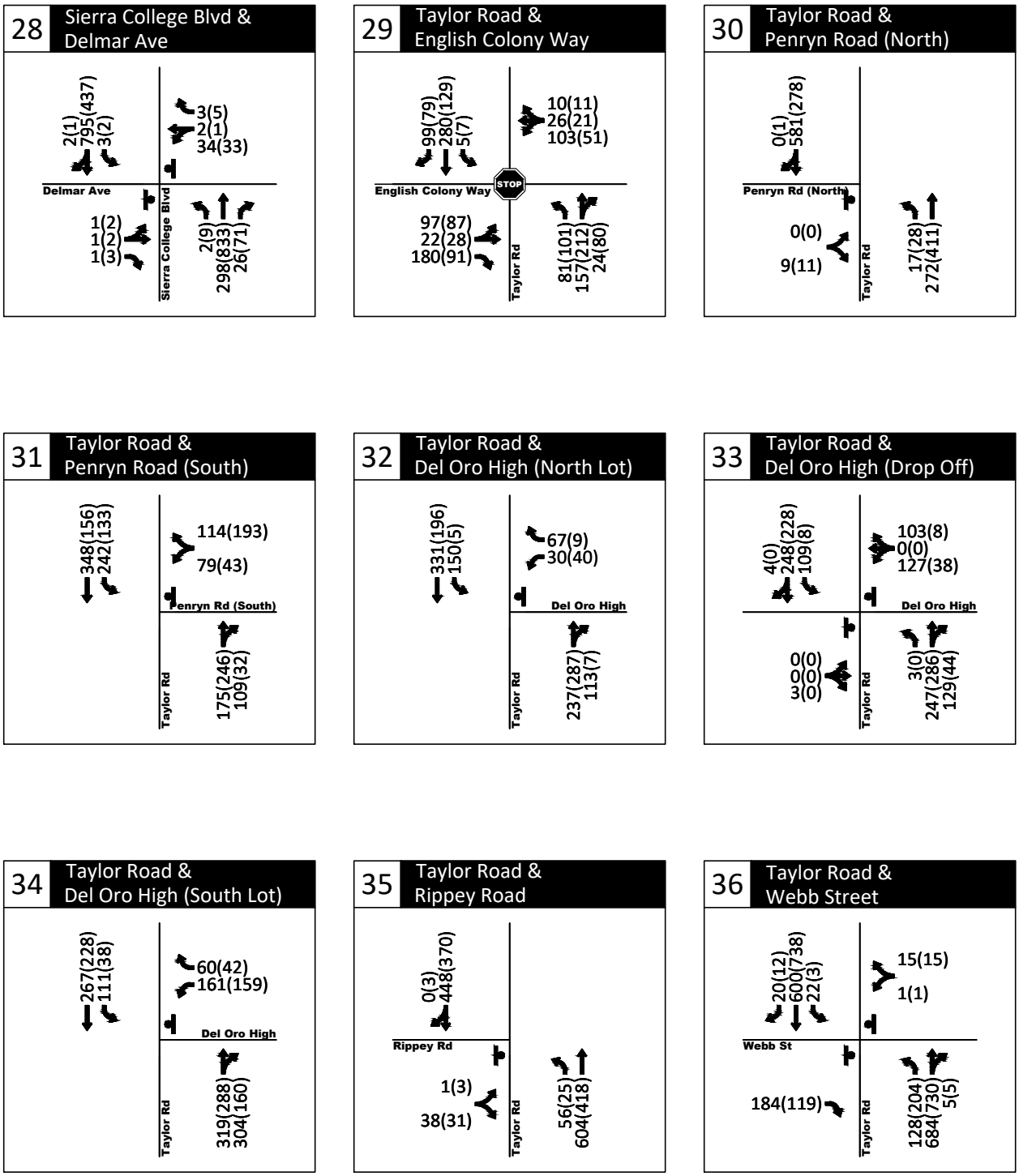
- Traffic Signal

Existing Plus Project Traffic Conditions

Weekday AM and PM Peak Hours - Project Driveway Option 1A

Loomis, California

Figure 16C



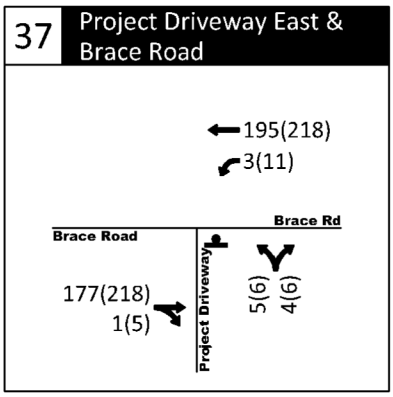
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure 16D



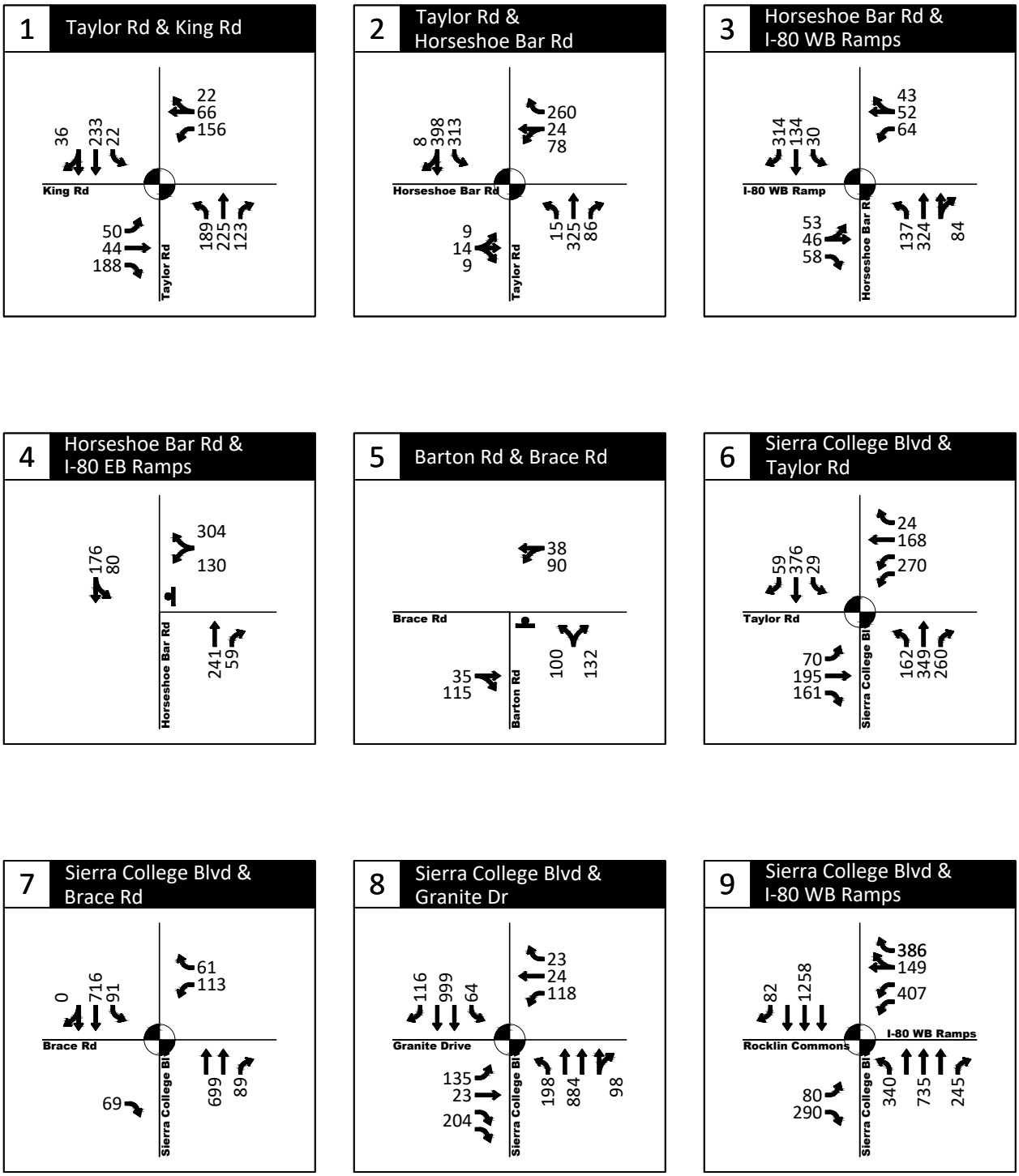
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure 16E



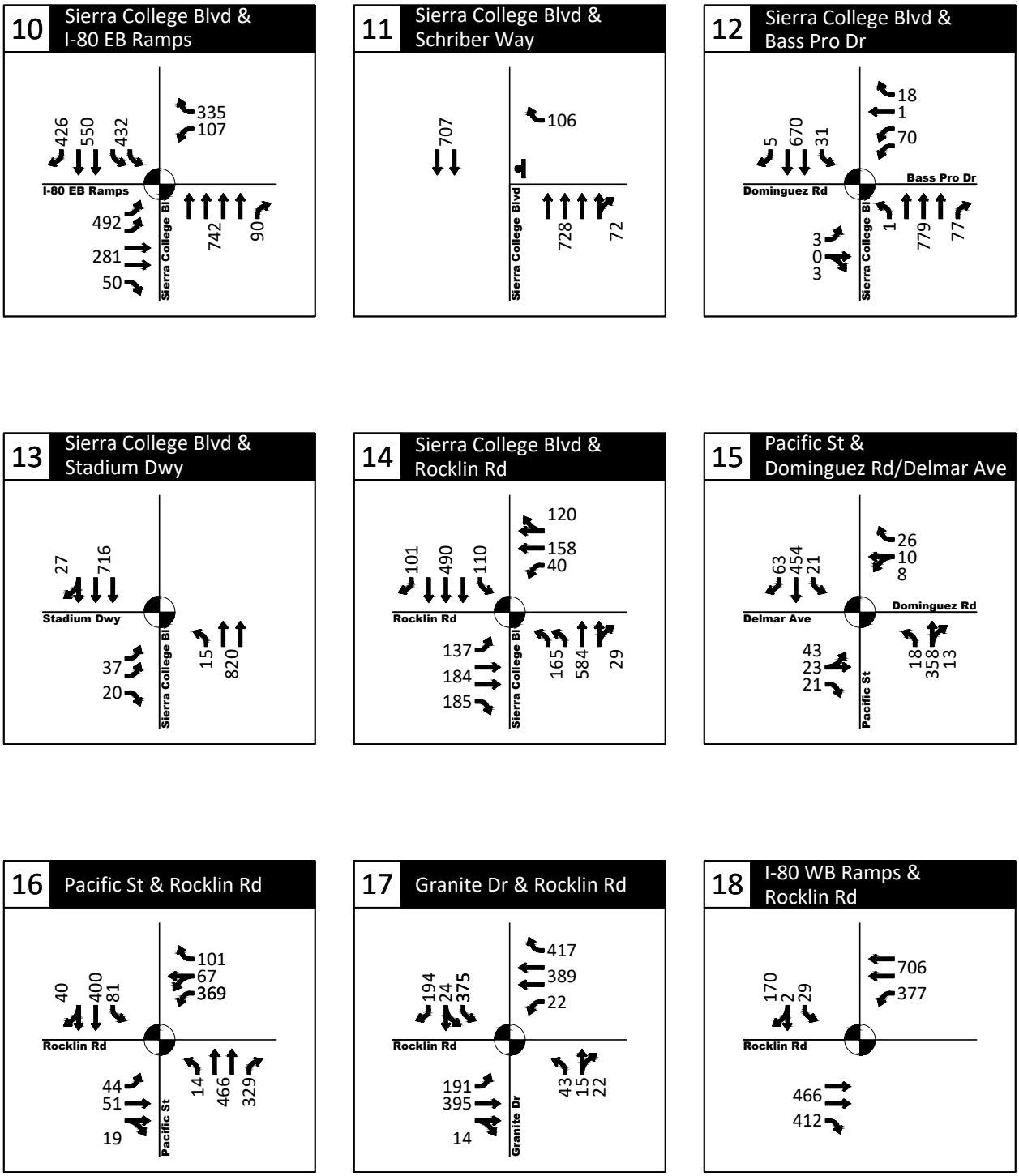
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
17A



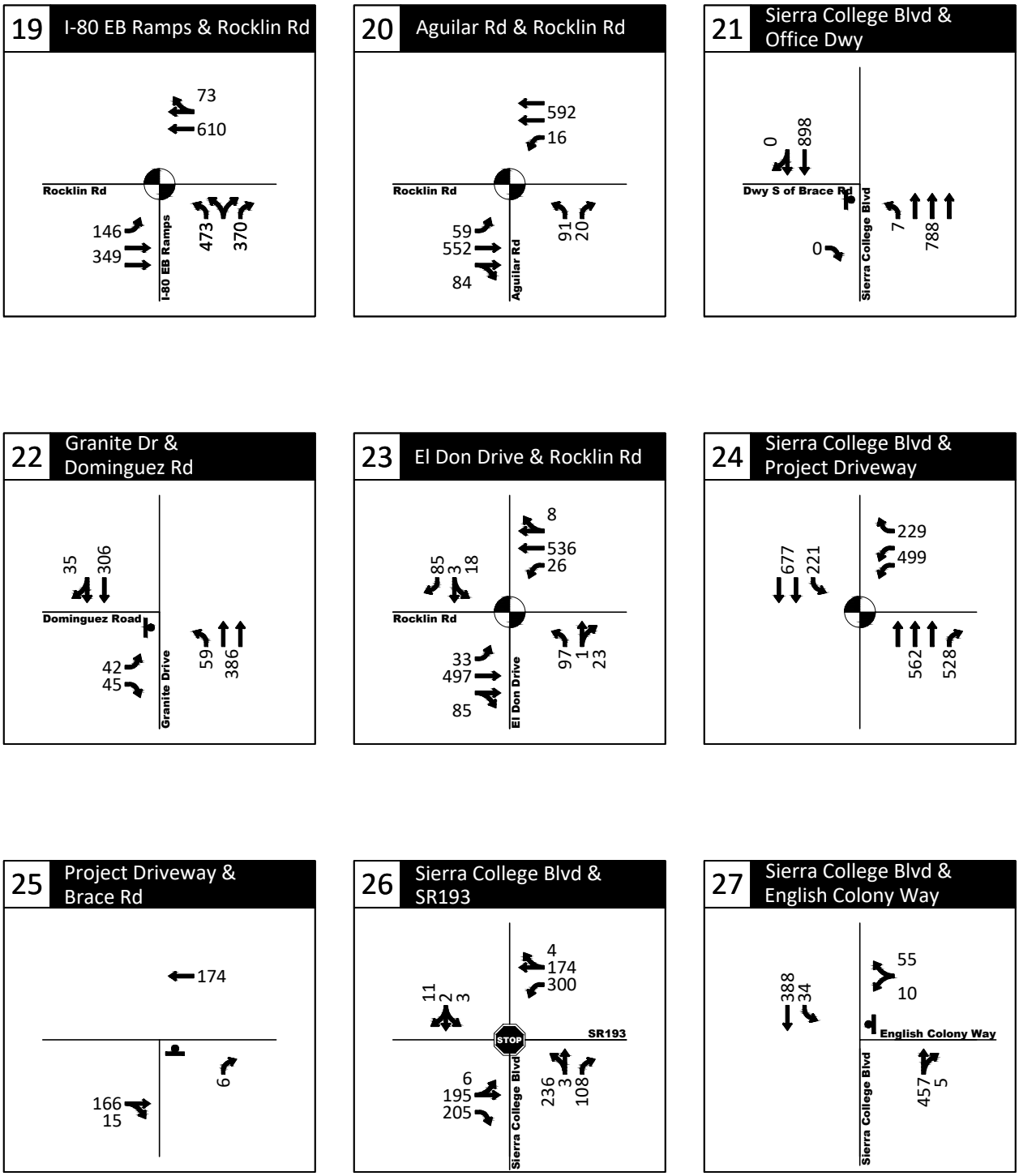
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

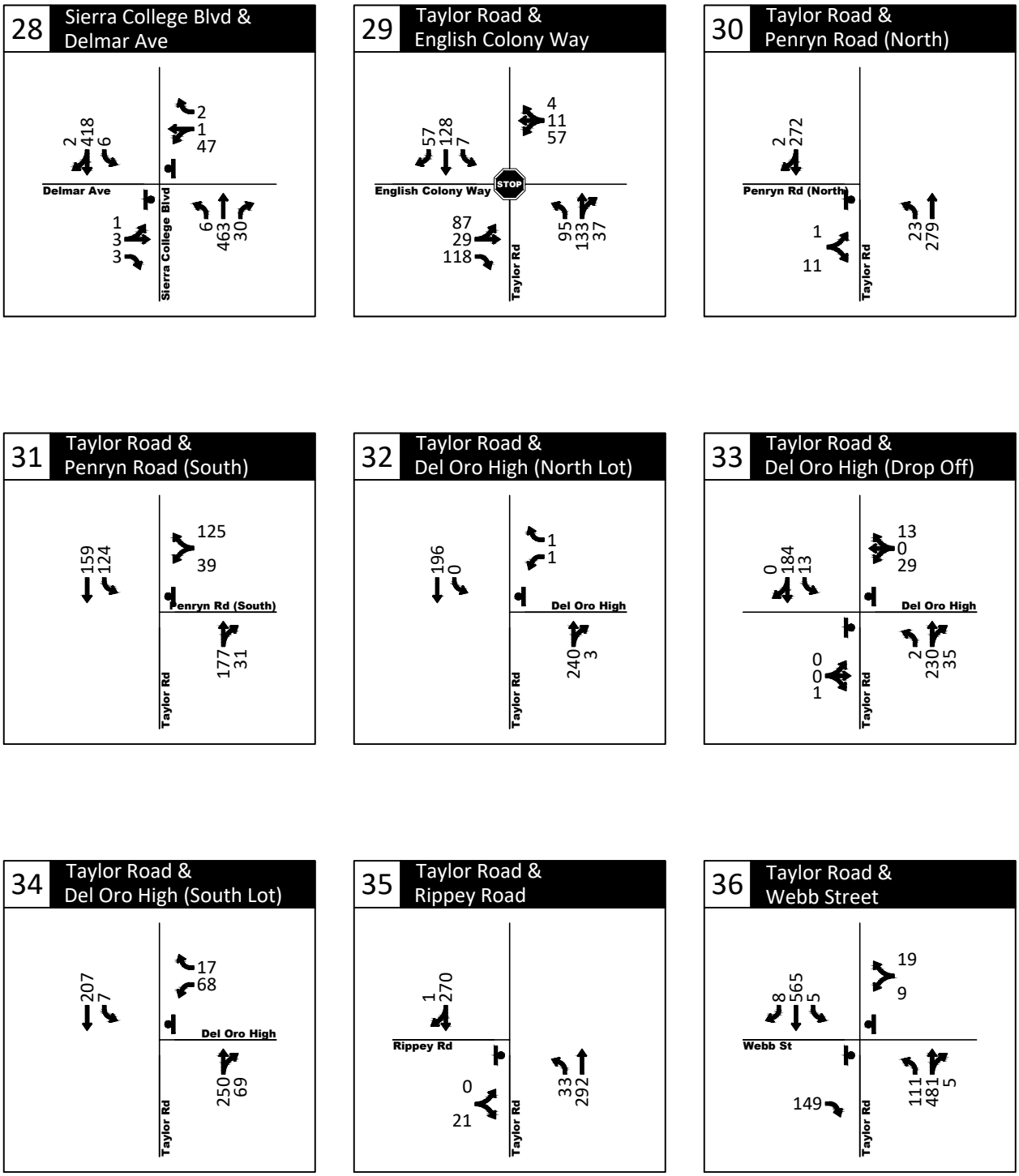
Figure
17B



- Weekend Midday Traffic Volume
- Stop Sign
- Traffic Signal

Existing Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
17C



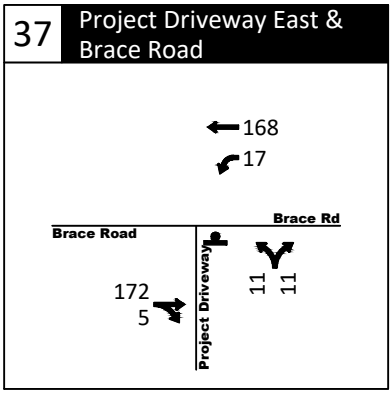
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
17D

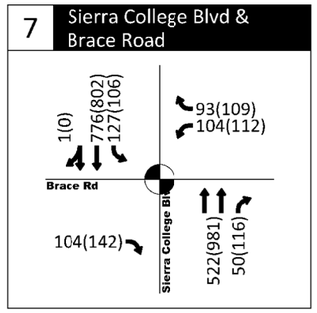


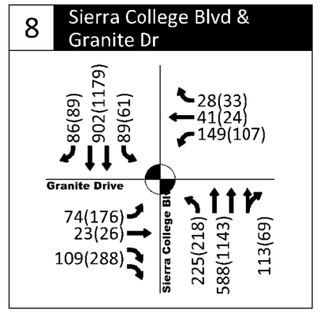
- Weekend Midday Traffic Volume
- Stop Sign
- Traffic Signal

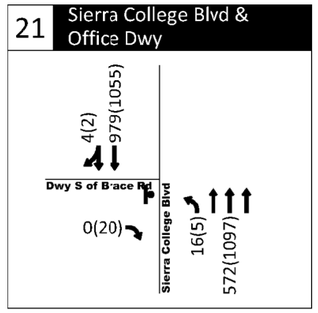
Existing Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

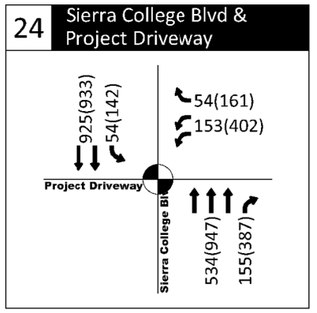
Figure
17E

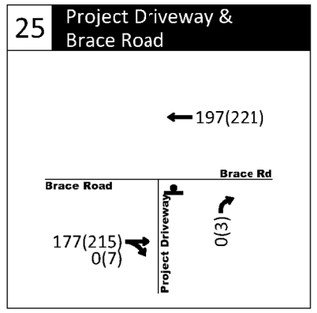
OPTION 1A

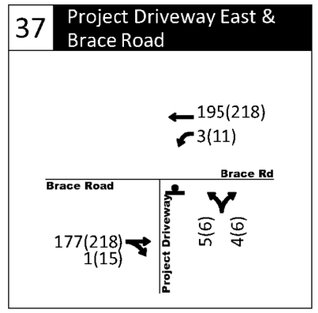




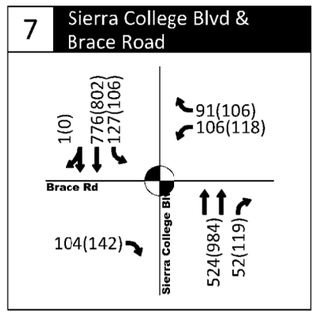


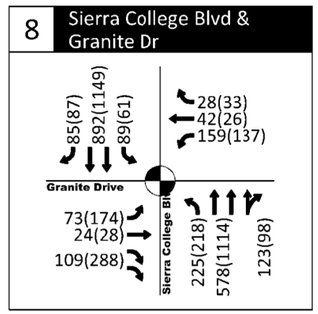


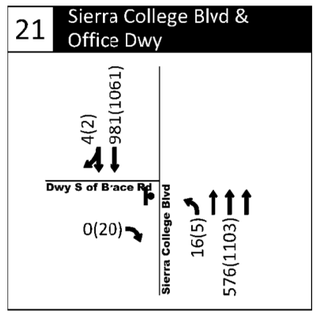


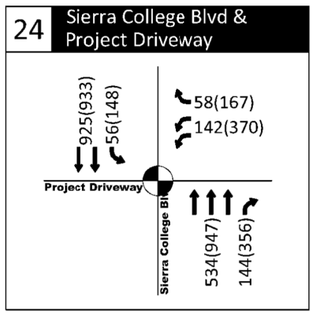


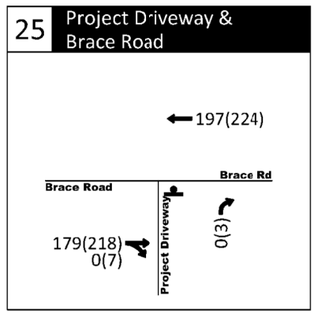
OPTION 1B

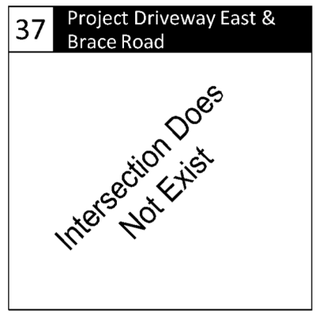




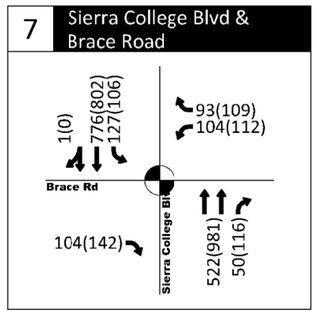


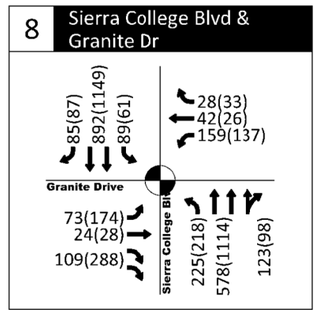


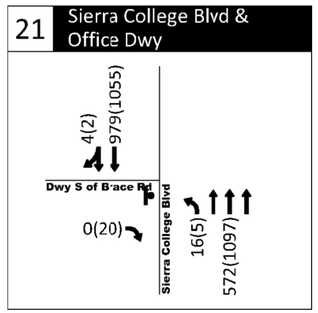


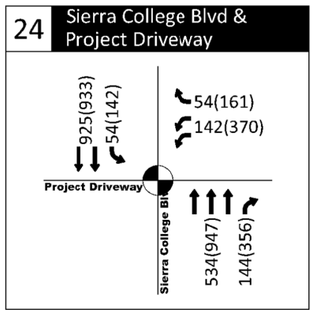


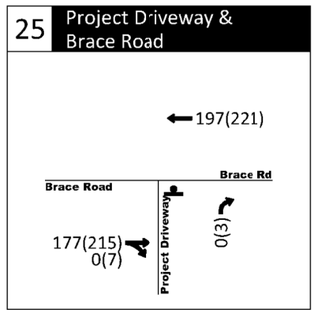
OPTION 1C

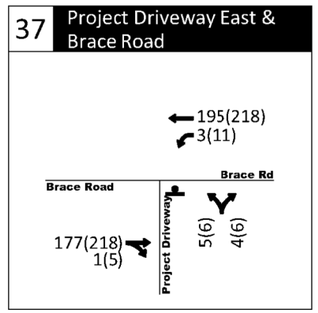












AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Existing Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Options 1B & 1C
Loomis, California

Figure 18

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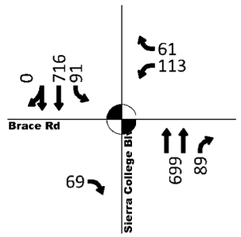
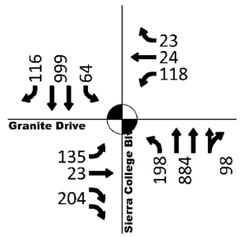
OPTION 1A

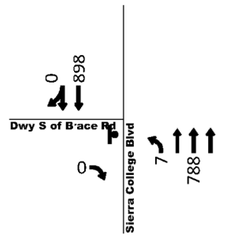
7 Sierra College Blvd & Brace Road



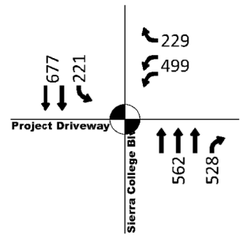
8 Sierra College Blvd & Granite Dr



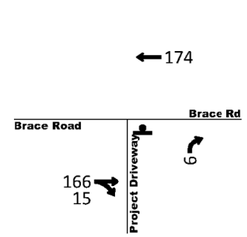
21 Sierra College Blvd & Office Dwy



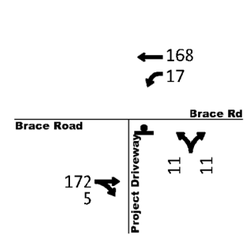
24 Sierra College Blvd & Project Driveway



25 Project Driveway & Brace Road

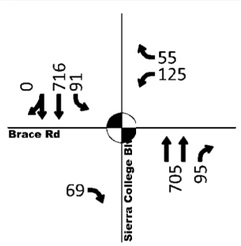


37 Project Driveway East & Brace Road

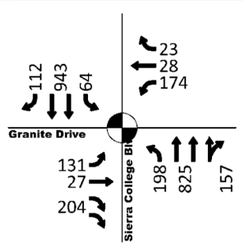


OPTION 1B

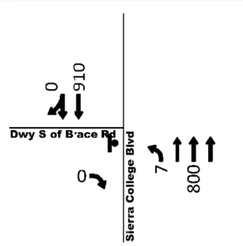
7 Sierra College Blvd & Brace Road



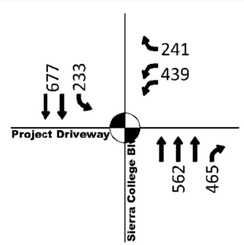
8 Sierra College Blvd & Granite Dr



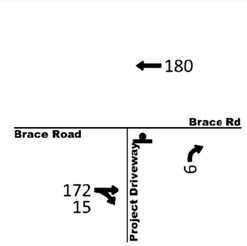
21 Sierra College Blvd & Office Dwy



24 Sierra College Blvd & Project Driveway



25 Project Driveway & Brace Road

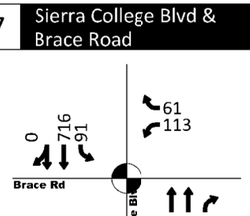


37 Project Driveway East & Brace Road

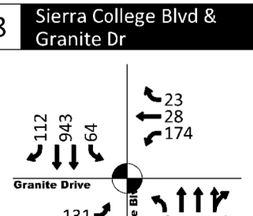
Intersection Does Not Exist

OPTION 1C

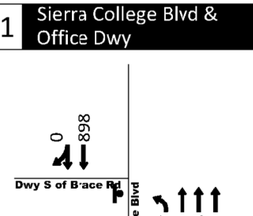
7 Sierra College Blvd & Brace Road



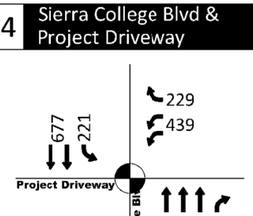
8 Sierra College Blvd & Granite Dr



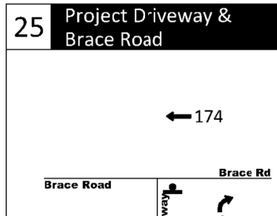
21 Sierra College Blvd & Office Dwy



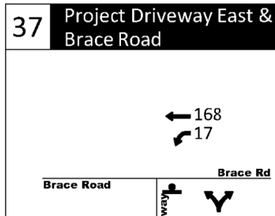
24 Sierra College Blvd & Project Driveway



25 Project Driveway & Brace Road



37 Project Driveway East & Brace Road



- Weekend Midday Traffic Volume

- Stop Sign
- Traffic Signal

Existing Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Options 1B & 1C
Loomis, California

Figure 19

KITTELSON & ASSOCIATES

Project Driveway Options 1B & 1C

Project Driveway Options 1B and 1C would affect operations of study intersections 7, 8, 21, 24, 25, and 37 due to the previously cited Project driveway trip routing. All other study intersections would operate the same under Project Driveway Options 1B and 1C as they would under Project Driveway Option 1A. Table 19 shows the baseline Existing No-Project and Plus Project delays and LOS at those study intersections affected by the options during weekday AM and PM peak hours. Table 20shows the baseline Existing No-Project and Plus Project delays and LOS at those study intersections affected by the options during the weekend midday peak hour.

As shown in the two tables, none of the six study intersections affected by site trip routing to the Project driveways are significantly impacted by the proposed Project for Project Driveway Options 1B and 1C.

Table 19: Existing Plus Project - Intersection LOS Analysis, Weekday AM/PM Peak Hour – Project Driveway Options 1B & 1C

ID	Intersection	Traffic Control Type	Weekday AM					Weekday PM				
			Existing		Plus Project		Change in Delay (sec)	Existing		Plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS		Delay (sec)	LOS	Delay (sec)	LOS	
Driveway Option 1B												
7	Sierra College Blvd/Brace Rd	Signal	9.7	A	13.2	B	3.5	10.7	B	16.7	B	6.0
8	Sierra College Blvd/Granite Dr	Signal	24.4	C	24.1	C	-0.3	27.1	C	29.9	C	2.8
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.3	A	0.3	A	0.0	12.6	B	13.0	B	0.4
24	Sierra College Blvd/Project Driveway	Signal	DNE		6.5	A	-	DNE		11.2	B	-
25	Brace Road/Project Driveway	TWSC	DNE		0.0	A	-	DNE		9.5	A	-
37	Brace Road/Project Driveway East	TWSC	DNE					DNE				
Driveway Option 1C												
7	Sierra College Blvd/Brace Rd	Signal	9.7	A	13.2	B	3.5	10.7	B	14.1	B	3.4
8	Sierra College Blvd/Granite Dr	Signal	24.4	C	24.1	C	-0.3	27.1	C	29.9	C	2.8
21	Sierra College Blvd/Dwy South of	TWSC	0.3	A	0.3	A	0.0	12.6	B	12.9	B	0.3
24	Sierra College Blvd/Project Driveway	Signal	DNE		6.4	A	-	DNE		11.0	B	-
25	Brace Road/Project Driveway	TWSC	DNE		0.0	A	-	DNE		9.5	A	-
37	Brace Road/ Project Driveway East	TWSC	DNE		10.0	B	-	DNE		10.4	B	-

Notes:
AWSC: All-way stop control – The average intersection delay is reported.
TWSC: Two-way stop control - delay reported reflects the critical movement.
DNE: Intersection does not exist under no Project conditions.
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.
Source: Kittelson & Associates, Inc. 2019

Table 20: Existing Plus Project - Intersection LOS Analysis, Weekend Midday Peak Hour – Project Driveway Options 1B & 1C

ID	Intersection	Traffic Control Type	Existing		Plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS	
Driveway Option 1B							
7	Sierra College Blvd/Brace Rd	Signal	9.1	A	12.6	B	3.5
8	Sierra College Blvd/Granite Dr	Signal	22.6	C	24.8	C	2.2
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	DNE		0.1	A	-
24	Sierra College Boulevard/Project Driveway	Signal	DNE		15.6	B	-
25	Brace Road/Project Driveway	TWSC	DNE		9.3	A	-
37	Brace Road/Project Driveway East	TWSC	DNE				
Driveway Option 1C							
7	Sierra College Blvd/Brace Rd	Signal	9.1	A	15.0	B	5.9
8	Sierra College Blvd/Granite Dr	Signal	22.6	C	24.8	C	2.2
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	DNE		0.1	A	-
24	Sierra College Boulevard/Project Driveway	Signal	DNE		14.1	B	-
25	Brace Road/Project Driveway	TWSC	DNE		9.2	A	-
37	Brace Road/Project Driveway East	TWSC	DNE		10.1	B	-

Notes:
AWSC: All-way stop control – The average intersection delay is reported.
TWSC: Two-way stop control - The delay reported reflects the critical movement.
DNE: Intersection does not exist under no Project conditions.
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.
Source: Kittelson & Associates, Inc. 2019

6.1.2 Queuing Analysis

The 95th percentile queues at the study intersections were reviewed to identify locations where the queues may exceed the available storage capacity. Appendix C provides the summary table for the weekday AM, PM and weekend midday peak hours. Appendix "G" includes the Project contribution tables.

Project Driveway Option 1A

One or more 95th percentile queues would extend beyond the available storage lengths at the following intersections for Project Driveway Option 1A:

- Taylor Road & King Road (AM, PM, and MD)
- Taylor Road & Horseshoe Bar Road (AM, PM, and MD)
- Horseshoe Bar Road & I-80 Westbound Ramp (AM, PM, and MD)
- Sierra College Boulevard & Taylor Road (PM)
- Sierra College Boulevard & Granite Drive (AM and PM)
- Sierra College Boulevard & I-80 WB Ramps (PM and MD)
- Sierra College Boulevard & Rocklin Road (AM and PM)
- Pacific Street & Rocklin Road (AM, PM, and MD)
- Granite Drive & Rocklin Road (AM, PM, and MD)
- I-80 Westbound Ramps & Rocklin Road (PM)
- I-80 Eastbound Ramps & Rocklin Road (AM and PM)
- El Don Drive & Rocklin Road (AM and PM)
- Taylor Road & English Colony Way (AM and MD)
- Taylor Road & Del Oro High School Drop Off (AM)
- Taylor Road & Del Oro High School South Lot (AM)

In addition, the queues reported at the above locations would affect operations at the upstream locations as shown:

- The northbound through at Sierra College Boulevard & Taylor Road would affect operations at Sierra College Boulevard & Brace Road (PM)
- The southbound through at Sierra College Boulevard & I-80 WB Ramps would affect operations at Sierra College Boulevard & Granite Drive (PM and MD)
- The westbound through at I-80 Eastbound Ramps & Rocklin Road would affect operations at Aguilar Road & Rocklin Road (PM)

Based on the intersection queuing significant impact criteria presented in Section 2 (Project traffic causes queue overflow or if queues overflows under no Project, the Project contributes 5% of the total traffic for the movement), an intersection queue significant impact occurs at the following intersections under Project Driveway Option 1A:

- Taylor Road & King Road (MD)
- Sierra College Boulevard & Granite Drive (PM)
- Sierra College Boulevard & I-80 WB Ramps (PM and MD)
- Granite Drive & Rocklin Road (MD)

Project Driveway Options 1B & 1C

As previously explained, Project Driveway Options 1B and 1C would affect operations of study intersections 7, 8, 21, 24, 25, and 37 due to driveway trip routing. All other study intersections would operate the same under Project Driveway Options 1B and 1C as they would under Project Driveway Option 1A. Of the six affected intersections, one or more 95th percentile queues would extend beyond the available storage lengths at the following intersections (for those intersections affected by the driveway options):

- Sierra College Boulevard & Brace Road (AM, PM, and MD)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)

In addition, the queues reported at the above locations would affect operations at the upstream locations as shown (for those intersections affected by the driveway options):

- The northbound through at Sierra College Boulevard & Taylor Road would affect operations at Sierra College Boulevard & Brace Road (PM)
- The southbound through at Sierra College Boulevard & I-80 WB Ramps would affect operations at Sierra College Boulevard & Granite Drive (PM and MD)

Based on the intersection queuing significant impact criteria presented in Section 2 (Project traffic causes queue overflow or if queues overflows under no Project, the Project contributes 5% of the total traffic for the movement), an intersection queue significant impact occurs at the following affected study area intersections:

- Sierra College Boulevard & Brace Road (PM and MD)[13]
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)

[13] Weekday PM and Weekend Midday peak hour impacted for Project Driveway Option 1B only.

6.1.3 Simulation Supplemental Evaluation

The Existing plus Project conditions simulation evaluation was conducted with the same assumptions as outlined in Section 4.0 for Existing Conditions and is provided for informational purposes only.

Project Driveway Option 1A

The total network performance results of the simulation runs for Project Driveway Option 1A are presented in Table 21 and the arterial performance results are presented in Table 22. Please note that signal timing was not modified with the addition of Project trips.

As shown, the Project traffic increases network delay for all peak hours. In addition, the increased congestion on the network results in vehicles being denied entry into the network during the simulation period.

Table 21: Existing Plus Project Conditions – Simulation Total Network Performance Results – Project Driveway Option 1A

Peak Hour	Existing				Existing Plus Project			
	Total Delay/Vehicle (s)	Vehicles Entered	Vehicles Exited	Vehicles Denied Entry	Total Delay/Vehicle (s)	Vehicles Entered	Vehicles Exited	Vehicles Denied Entry
AM	46.8	5,333	5,325	0	44.7	5,707	5,661	0
PM	54.7	7,131	7,125	1	93.6	7,479	7,255	12
MD	40.0	5,795	5,797	0	58.9	6,722	6,652	1

Notes:
(s): seconds
Total Delay/Vehicle: Total delay is equal to the travel time minus the travel time for a vehicle with no other vehicles or control devices. This delay is divided by the number of vehicles to obtain the total delay per vehicle.

Vehicles Entered/Exited: Represents the number of vehicles counted entering and exiting the link or area during the interval. This value does not include vehicles moving from one intersection to the next with the arterial or network.

Vehicles Denied Entry: This value represents the number of vehicles unable to enter a link due to congestion and are waiting to enter. These vehicles can either be from an external link or from a mid-block source.

Source: Kittelson & Associates, Inc. 2019

As shown, for the Sierra College Boulevard corridor, the Project increases delay, travel time, and reduces arterial speed for all peak hours and direction.

Table 22: Existing Plus Project Conditions – Simulation Sierra College Boulevard Arterial Performance Results – Project Driveway Option 1A

Segment	Peak Hour	Direction	Existing			Existing Plus Project		
			Delay (s)	Travel Time (s)	Arterial Speed (mph)	Delay (s)	Travel Time (s)	Arterial Speed (mph)
Sierra College Boulevard between Taylor Road and Stadium Way	AM	Northbound	70.8	191.0	28	73.8	244.3	22
		Southbound	137.9	326.1	25	133.9	398.6	20
	PM	Northbound	138.2	257.2	21	190.7	366.1	14
		Southbound	123.9	309.8	26	259.2	526.0	16
	MD	Northbound	85.8	205.4	26	114.2	288.1	18
		Southbound	100.1	286.0	29	138.1	405.6	20

Notes:
Total Delay: Total Delay for the average vehicle traveling the length of the corridor including stopped delay and congestion delay.
Total Travel Time: Time in seconds for the average vehicle to travel the length of the corridor.
Average Arterial Speed: Average speed of the average vehicle traveling the length of the corridor.
Source: Kittelson & Associates, Inc. 2019

The detailed network and arterial performance output sheets are presented in Appendix "D".

Project Driveway Options 1B & 1C

Project Driveway Options 1B and 1C would affect operations along the Sierra College Boulevard Corridor due to the driveway trip routing; therefore Exiting plus Project conditions simulation evaluation was also conducted for Project Driveway Options 1B and 1C. The total network performance results of the simulation runs are presented in Table 23 and the arterial performance results are presented in Table 24. Please note that signal timing was not modified with the addition of Project trips.

As shown, the Project traffic increases network delay for all peak hours. In addition, the increased congestion on the network results in vehicles being denied entry into the network during the simulation period.

Table 23: Existing Plus Project Conditions – Simulation Total Network Performance Results – Project Driveway Options 1B & 1C

Peak Hour	Existing				Existing Plus Project			
	Total Delay/Vehicle (s)	Vehicles Entered	Vehicles Exited	Vehicles Denied Entry	Total Delay/Vehicle (s)	Vehicles Entered	Vehicles Exited	Vehicles Denied Entry
Driveway Option 1B								
AM	46.8	5,333	5,325	0	50.3	5,744	5,722	2
PM	54.7	7,131	7,125	1	69.5	8,534	8,503	16
MD	40.0	5,795	5,797	0	48.6	7,414	7,392	2
Driveway Option 1C								
AM	46.8	5,333	5,325	0	45.0	5,827	5,771	0
PM	54.7	7,131	7,125	1	68.2	7,550	7,420	2
MD	40.0	5,795	5,797	0	52.0	6,735	6,678	1

Notes:
(s): seconds
Total Delay/Vehicle: Total delay is equal to the travel time minus the travel time for a vehicle with no other vehicles or control devices. This delay is divided by the number of vehicles to obtain the total delay per vehicle.

Vehicles Entered/Exited: Represents the number of vehicles counted entering and exiting the link or area during the interval. This value does not include vehicles moving from one intersection to the next with the arterial or network.

Vehicles Denied Entry: This value represents the number of vehicles unable to enter a link due to congestion and are waiting to enter. These vehicles can either be from an external link or from a mid-block source.

Source: Kittelson & Associates, Inc. 2019

As shown, for the Sierra College Boulevard corridor, the Project increases delay, travel time, and reduces arterial speed for all peak hours and direction. The detailed network and arterial performance output sheets are presented in Appendix "D".

Table 24: Existing Plus Project Conditions – Simulation Sierra College Boulevard Arterial Performance Results – Project Driveway Options 1B & 1C

Segment	Peak Hour	Direction	Existing			Existing Plus Project		
			Delay (s)	Travel Time (s)	Arterial Speed (mph)	Delay (s)	Travel Time (s)	Arterial Speed (mph)
Driveway Option 1B								
Sierra College Boulevard between Taylor Road and Stadium Way	AM	Northbound	70.8	191.0	28	80.1	199.2	27
		Southbound	137.9	326.1	25	163.8	349.4	23
	PM	Northbound	138.2	257.2	21	220.0	342.4	16
		Southbound	123.9	309.8	26	157.9	343.0	24
	MD	Northbound	85.8	205.4	26	114.3	242.6	22
		Southbound	100.1	286.0	29	127.6	318.6	26
Driveway Option 1C								
Sierra College Boulevard between Taylor Road and Stadium Way	AM	Northbound	70.8	191.0	28	77.4	248.1	21
		Southbound	137.9	326.1	25	137.0	402.6	20
	PM	Northbound	138.2	257.2	21	164.4	339.0	16
		Southbound	123.9	309.8	26	152.4	418.9	19
	MD	Northbound	85.8	205.4	26	106.6	280.4	19
		Southbound	100.1	286.0	29	130.3	396.1	21

Notes:
Total Delay: Total Delay for the average vehicle traveling the length of the corridor including stopped delay and congestion delay.
Total Travel Time: Time in seconds for the average vehicle to travel the length of the corridor.
Average Arterial Speed: Average speed of the average vehicle traveling the length of the corridor.
Source: Kittelson & Associates, Inc. 2019

6.2 PLACER COUNTY ROADWAY OPERATIONS

Analysis for the study segments was conducted using the LOS criteria defined as noted in Section 3.1. The three Project driveway options do not affect the Project traffic volumes for the roadway segments analyzed. Table 25 outlines the roadway volumes and associated level of service for the study segments and is applicable for all three Project driveway options. As shown, all study segments continue to satisfy the acceptable LOS C standard with the addition of Project trips regardless of the Project driveway option considered. Therefore, Project impacts would be less than significant.

Table 25: Existing Plus Project Conditions – Placer County Weekday ADT Roadway Segment LOS Analysis

Roadway	Segment	Number of Lanes	Existing		Existing Plus Project		
			ADT	LOS	Project ADT	ADT	LOS
Sierra College Boulevard (SCB)	SR-193 to English Colony Way	2	8,290	A	180	8,470	A
	English Colony Way to Delmar Ave	2	11,120	B	200	11,320	B
	Delmar Ave to Loomis Town Limits	2	11,120	B	220	11,340	B
SR-193	Lincoln City Limits to SCB	2	10,360	A	90	10,450	A
	SCB to Clark Tunnel Road	2	7,200	A	50	7,250	A

Notes:
ADT volumes sourced from Bickford Ranch Specific Plan EIR Addendum (October 2015) and adjusted based on City of Rocklin Travel Demand Model Growth Rates.
Source: Kittelson & Associates, Inc. 2019

6.3 FREEWAY FACILITIES EVALUATION

Existing conditions traffic volumes for the weekday AM and PM peak hours were added to the site-generated traffic to arrive at the Existing plus Project traffic volumes.

6.3.1 Freeway Mainline Basic Segment Analysis

The three Project driveway options do not affect the Project traffic volumes for the freeway segments analyzed. Table 26 through Table 28 outline the Existing and Existing plus Project mainline volume, density and associated level of service for the study segments and are applicable for all three Project driveway options. As shown, all study segments operate at acceptable LOS D or better with Project traffic regardless of the Project driveway option considered. Therefore, no significant impacts occur to the freeway mainline under the Existing Plus Project Conditions. Appendix "E" includes the freeway mainline level-of-service worksheets.

Table 26: Existing Plus Project Conditions – I-80 Mainline LOS Analysis, Weekday AM Peak Hour

ID	Segment	Direction	Existing			Existing Plus Project			Change in Density
			Volume	Density	LOS	Volume	Density	LOS	
1	I-80 east of Sierra College	Eastbound	3,110	19.0	C	3,132	19.1	C	0.1
		Westbound	4,062	25.4	C	4,085	25.6	C	0.2
2	I-80 west of Sierra College	Eastbound	3,118	19.1	C	3,125	19.1	C	0.0
		Westbound	3,702	22.9	C	3,709	23.0	C	0.1

Notes:
Density units: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

Table 27: Existing Plus Project Conditions – I-80 Mainline LOS Analysis, Weekday PM Peak Hour

ID	Segment	Direction	Existing			Existing Plus Project			Change in Density
			Volume	Density	LOS	Volume	Delay	LOS	
1	I-80 east of Sierra College	Eastbound	4,398	25.8	C	4,469	26.3	D	0.5
		Westbound	3,803	22.5	C	3,870	22.9	C	0.4
2	I-80 west of Sierra College	Eastbound	4,042	23.4	C	4,061	23.5	C	0.1
		Westbound	3,716	22.0	C	3,736	22.1	C	0.1

Notes:
Density: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

Table 28: Existing Plus Project Conditions – I-80 Mainline LOS Analysis, Weekend MD Peak Hour

ID	Segment	Direction	Existing			Existing Plus Project			Change in Density
			Volume	Density	LOS	Volume	Delay	LOS	
1	I-80 east of Sierra College	Eastbound	3,980	22.5	C	4,110	23.3	C	0.8
		Westbound	3,892	21.5	C	4,029	22.3	C	0.8
2	I-80 west of Sierra College	Eastbound	3,963	22.4	C	4,002	22.6	C	0.2
		Westbound	3,812	21.1	C	3,850	21.3	C	0.2

Notes:
Density: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

6.3.2 Ramp Metering Analysis

No ramp metering analysis was provided for the existing plus Project conditions because the ramp meter has not been activated.

6.4 PEDESTRIAN AND BICYCLE EVALUATION

The proposed Project would provide pedestrian facilities on-site linking with public facilities along the site frontages on Sierra College Boulevard and Brace Road to provide connectivity with existing facilities. Pedestrian crosswalks would be provided at proposed new signalized Costco site access intersection on Sierra College Boulevard. The project would reconstruct the Type II bicycle facility on Sierra College Boulevard northbound along the site frontage, including providing separate northbound right-turn lanes at the proposed signalized Project access and at Brace Road. In addition, the Project would provide bicycle parking on site for both members and employees.

Due to the nature of products and services provided by the Project, the Project would minimally increase pedestrian and bicycle traffic in the study area off-site. Sidewalk connections would be provided along the Project site frontage with the proposed development along Sierra College Boulevard. The Project site

would not be in conflict with applicable Town pedestrian and bicycle plans for any of the Project driveway options considered. The Project would have a less than significant impact on pedestrian and bicycle facilities.

6.5 TRANSIT EVALUATION

Due to the nature of products and services provided by the Project and limited transit connectivity provided adjacent to the site, the Project would minimally increase transit ridership in the study area. The nearest stop is approximately 0.6 mile from the Project site for routes with one hour and two hour headways. Due to the distance to the stop, relatively long bus headways, and employee shift times, it is unlikely that a significant number of employee trips would be added to the transit network. The project site would not be in conflict with applicable Placer County Transit plans or encroach on any lines or stops. The Project would have a less than significant impact on transit services and a new transit stop is not warranted at the Project site.

Project impacts on traffic flow could affect travel time for transit vehicles. Traffic flow impacts are addressed in the intersection evaluation sections of this study for all Project driveway options considered.

Section 7
Cumulative Conditions – Short Term Baseline

7.0 CUMULATIVE CONDITIONS – SHORT TERM BASELINE

The Cumulative Short Term Baseline traffic conditions analysis forecasts how the study area's transportation system would operate with the traffic generated by the approved/pending projects in the area prior to the proposed site development.

The Town of Loomis, the City of Rocklin, and Placer County collectively provided a list of approved/pending projects that would affect traffic volumes in the study area. Table 29 lists the approved/pending projects for the short term accounted for in the Cumulative Short Term Baseline traffic condition analysis. Appendix "H" provides *Trip Generation Manual* - based trip estimates for all approved/pending projects as estimated based on the data provided as well as a location map.

Table 29: Approved/Pending Projects List

ID	Name	Size	Traffic Study Source
1	Rocklin Crossings	83,000 square foot Shopping Center	Traffic Impact Analysis, Rocklin Crossings, LSA, March 2007
2	Rocklin Commons	120,000 square foot Shopping Center	Traffic Impact Analysis, Rocklin Commons, LSA, January 2009
3	Garnet Creek	81 single family homes and 260 multifamily dwelling units	N/A
4	Granite Dominguez Subdivision	71 single family homes	N/A
5	Los Cerros Subdivision	115 single family homes	N/A
6	Brighton Subdivision	72 single family homes	N/A
7	Rocklin 60	179 single family homes	Traffic Impact Analysis, Rocklin 60 Residential Project, LSA, May 2008
8	Croftwood	51 single family homes	N/A
9	Granite Terrace	42 single family homes	N/A
10	Avalon Subdivision	76 single family homes	N/A
11	Sierra Gateway Apartment	195 apartments	Sierra Gateway Apartments Transportation Impact Analysis Report, Omni Means, March 2017
12	Clover Valley Residential	558 single family homes	Recirculated Draft EIR Clover Valley LSLTSM, DKS Associates, January 2006
13	Parklands Subdivision	142 single family homes	N/A
14	The Center at Secret Ravine	16,000 square foot Shopping Center	N/A
15	Rocklin Gateway Apartment	204 apartments	Traffic Impact Analysis for Pacific Street/Midas Avenue Multi-Family Residential Project, KD Anderson & Associates, February 2017
16	Quarry Row Subdivision	64 single family homes	Traffic Impact Analysis for Quarry Row Subdivision, KD Anderson & Associates, January 2017

ID	Name	Size	Traffic Study Source
17	Sierra Pine Subdivision	199 single family homes	Final Transportation Impact Study for Sierra Pine Residential Project, Fehr & Peers, July 2017
18	Rocklin Station	33,000 square foot Shopping Center	Sierra College Boulevard Commercial Project, Abrams Associates, June 2017
19	Oak Vista Subdivision	63 single family homes	Traffic Impact Analysis for Oak Vista Subdivision, KD Anderson & Associates, November 2016
20	Croftwood 2	63 single family homes	N/A
21	Sierra Villages North (SCB Site)	349 single family homes, 14.8 acres Park	N/A
22	Sierra Villages South (Rocklin Road Site)	37 single family homes, 16.4 acres Park	N/A
23	Bickford Ranch Phase 1	Full project is 940 single family homes, 950 active-adult homes, 14.7 acres Recreation Center, 500 student elementary school. Phase 1 is approximately 50 percent of site.	Bickford Ranch Traffic Sufficiency Analysis Memorandum, Fehr & Peers, May 30, 2014
24	Amazing Facts	1,650 seat church	Traffic Impact Update for Amazing Facts, KD Anderson & Associates, July 16, 2012

The Villages of Loomis development is not anticipated to be constructed and occupied by the Project opening of 2020.
Source: Kittelson & Associates, Inc. 2019
N/A = not applicable/not available

Peak hour trips associated each of the approved pending projects were distributed through the study area using trip distribution percentages obtained from recently completed commercial and residential development project traffic studies in Rocklin. Because the proposed Project study area is larger than the study areas used in the other available development studies, trips were distributed throughout the larger study area using traffic patterns from existing counts, available traffic studies in the area, and engineering judgement.

Funded Transportation Improvements

Some of the existing study intersection configurations will be modified in association with Approved/Pending development projects. Specifically, a western approach would be added on Schriber Way at Sierra College Boulevard and the intersection of Sierra College Boulevard/Schriber Way would be signalized by the Rocklin Station project.

In addition to the approved/pending development projects noted above, the Town of Loomis has a funded widening of Sierra College Boulevard between Brace Road and Taylor Road identified in the adopted 2018-2023 Capital Facility Plan. The Town's roadway project is expected to widen the roadway to provide three northbound vehicle travel lanes, three southbound vehicle travel lanes, as well as a Class II bicycle facility both northbound and southbound for the length of the project. The northbound approach of Sierra College Boulevard at Taylor Road will provide a separate left-turn lane, two through lanes, and a separate northbound right-turn lane with traffic signal overlap plus the separate bicycle lane. The southbound approach of Sierra College Boulevard at Brace Road will provide a left-turn lane, two through lanes, and interim de-facto right-turn trap lane (to later be restriped as a shared through/right-

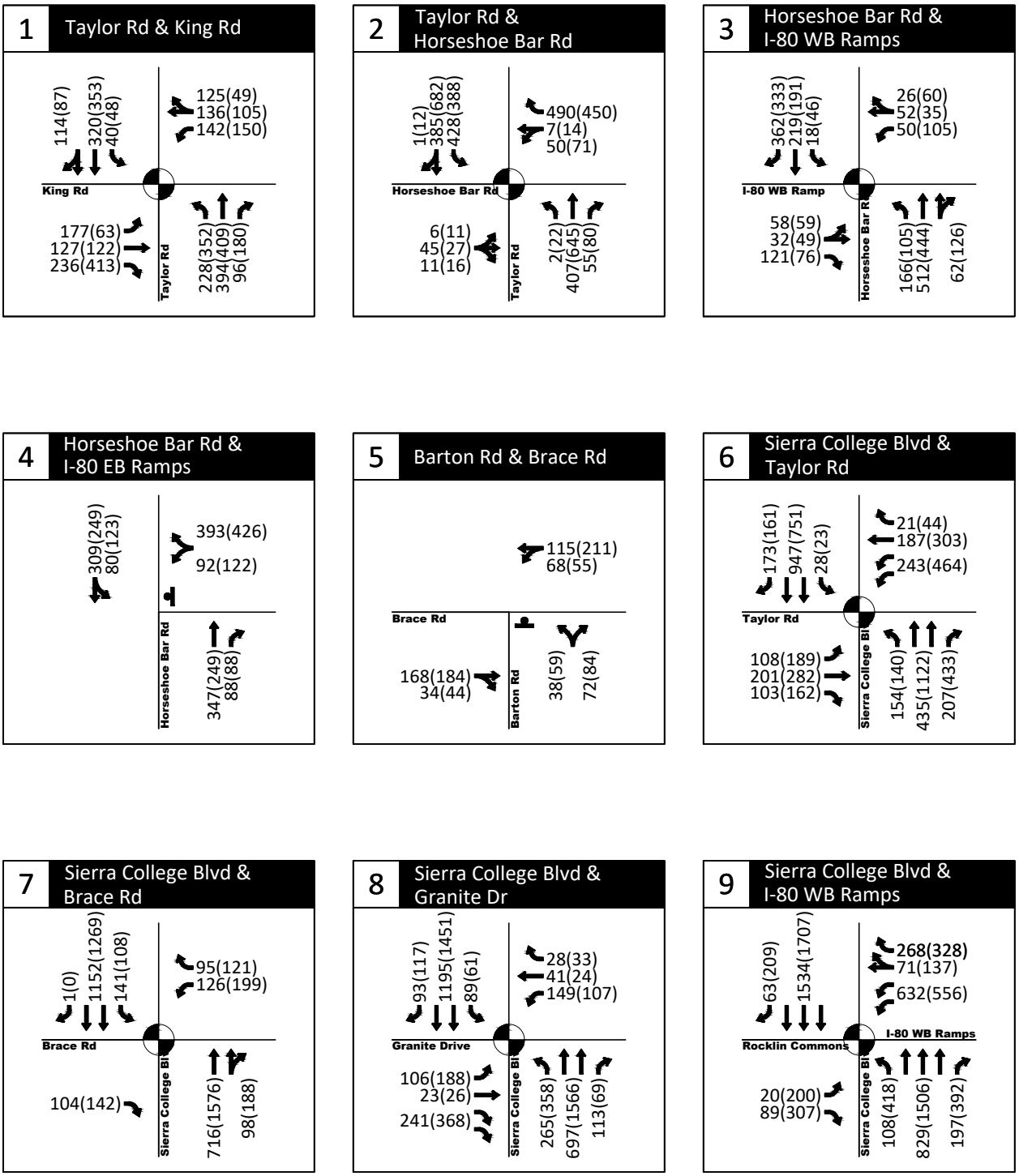
turn lane by others) as well as a separate bicycle lane. Construction of the Town's roadway widening project is expected in 2020-2021.

The planned/funded improvements were assumed to be completed in conjunction with the approved pending development project.

7.1 INTERSECTION EVALUATION

Weekday AM and PM as well as weekend midday peak hours associated with the approved/pending projects were added to the existing conditions traffic volumes to derive the Cumulative Short Term Baseline traffic volumes. Given the number of approved/pending projects contributing trips to the study area, the traffic signal timing at the study intersections was optimized for the Cumulative Short Term Baseline conditions. Per Caltrans staff direction, the I-80 ramps at Sierra College Boulevard were analyzed with coordination timing as determined by the Synchro software.

Figure 20 shows the Cumulative Short Term Baseline traffic condition during the weekday AM and PM peak hours while Figure 21 shows the Cumulative Short Term Baseline traffic condition during the weekend midday peak hour.



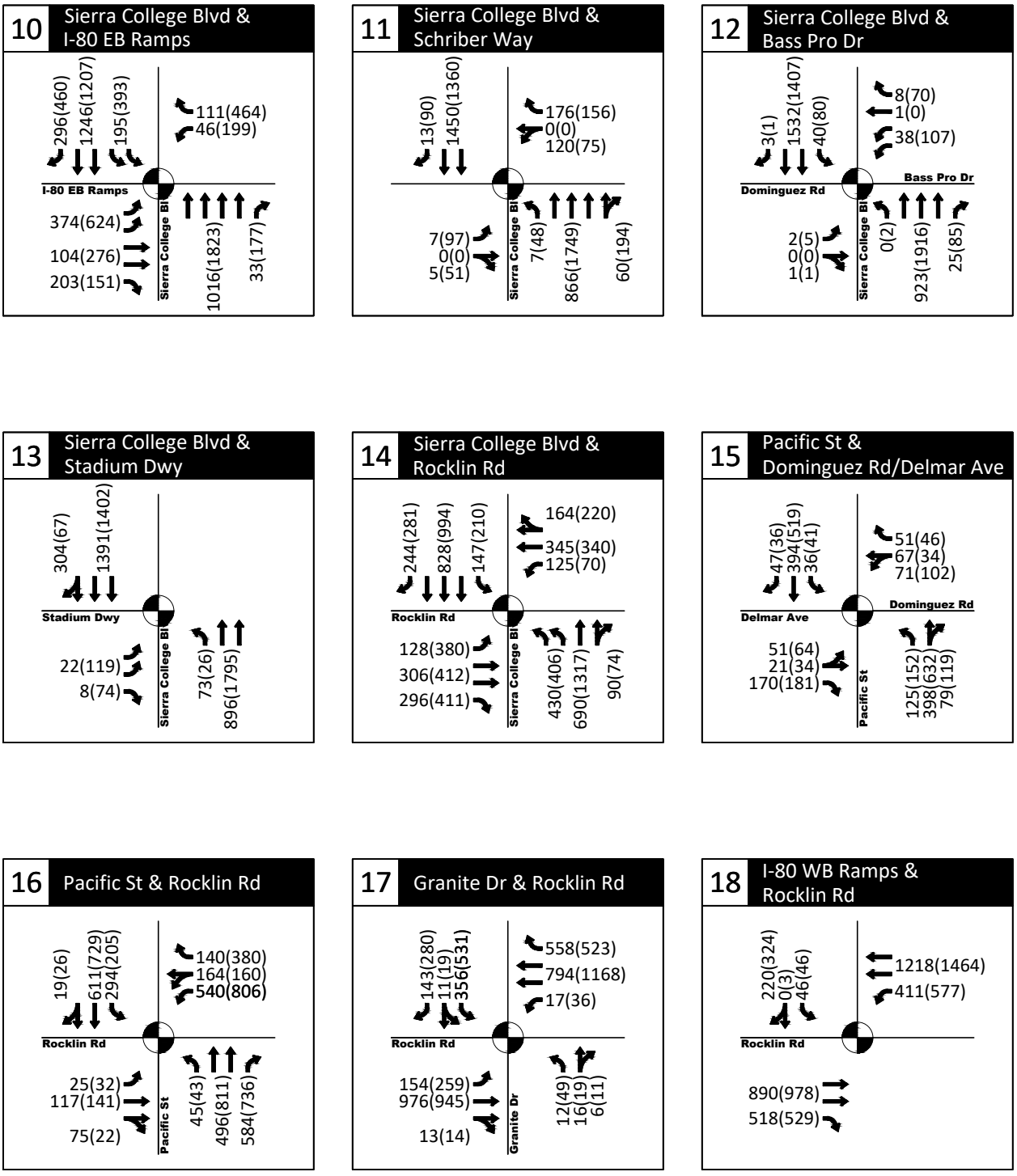
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
20A



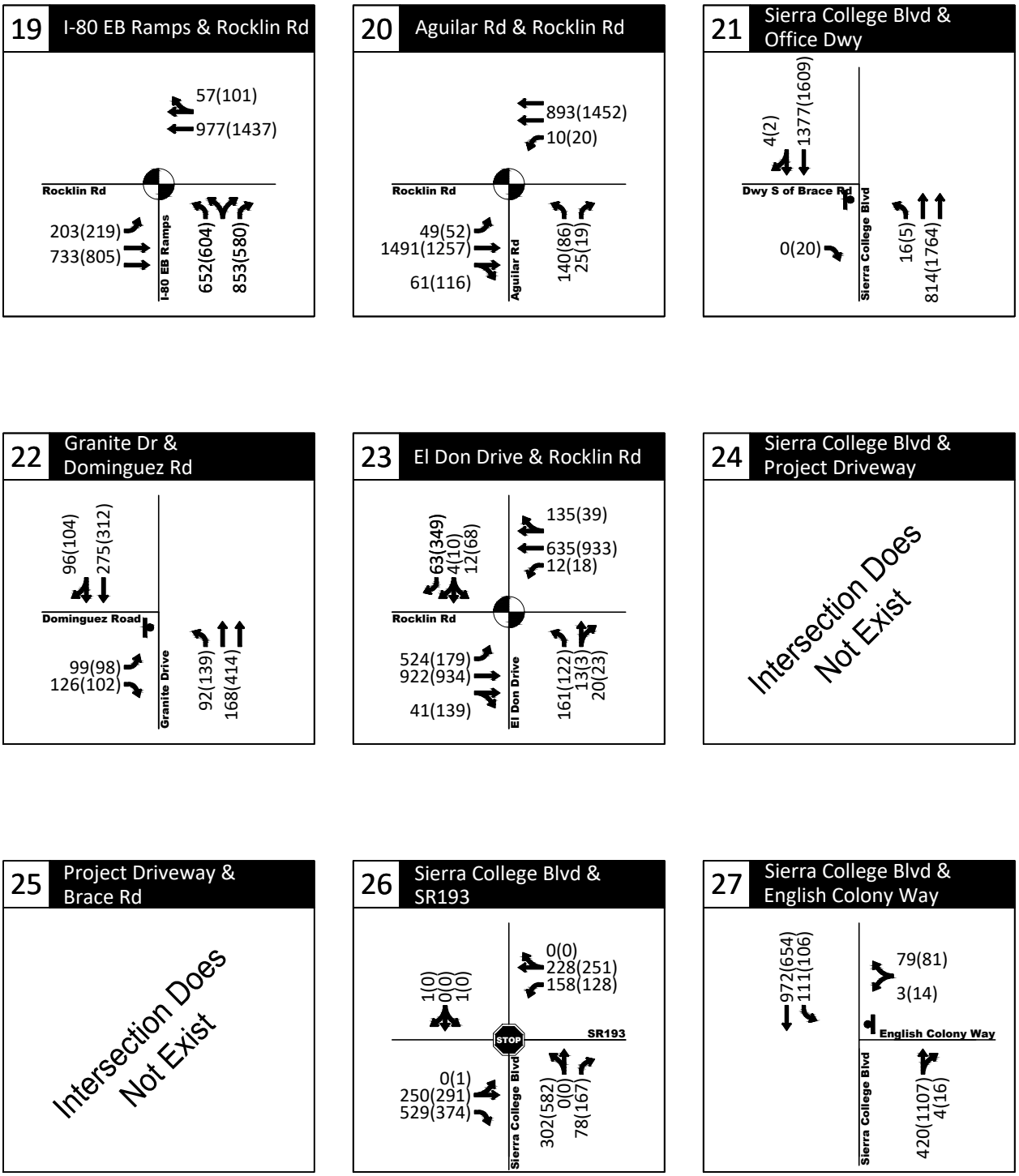
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
20B



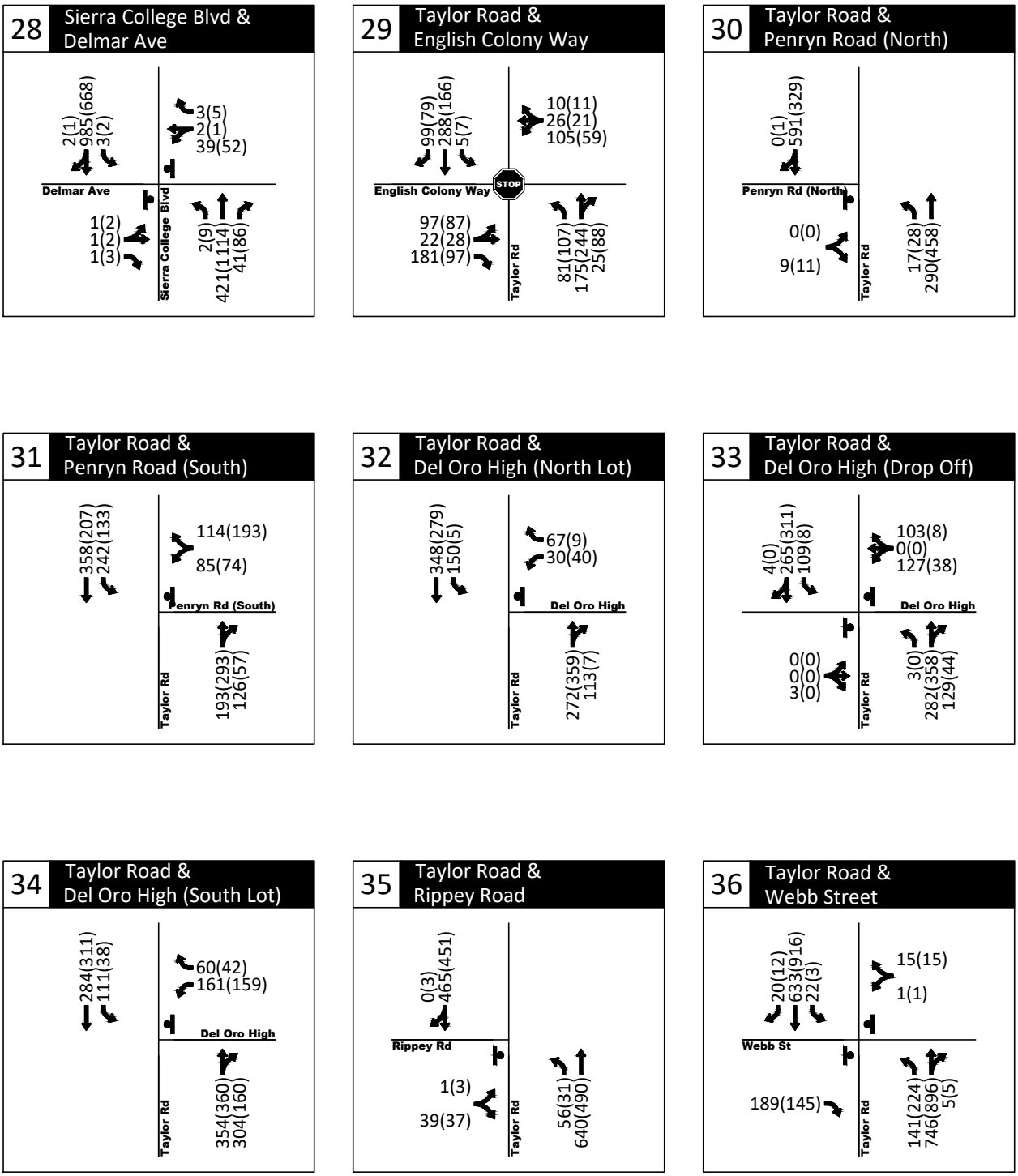
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
20C



AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
20D

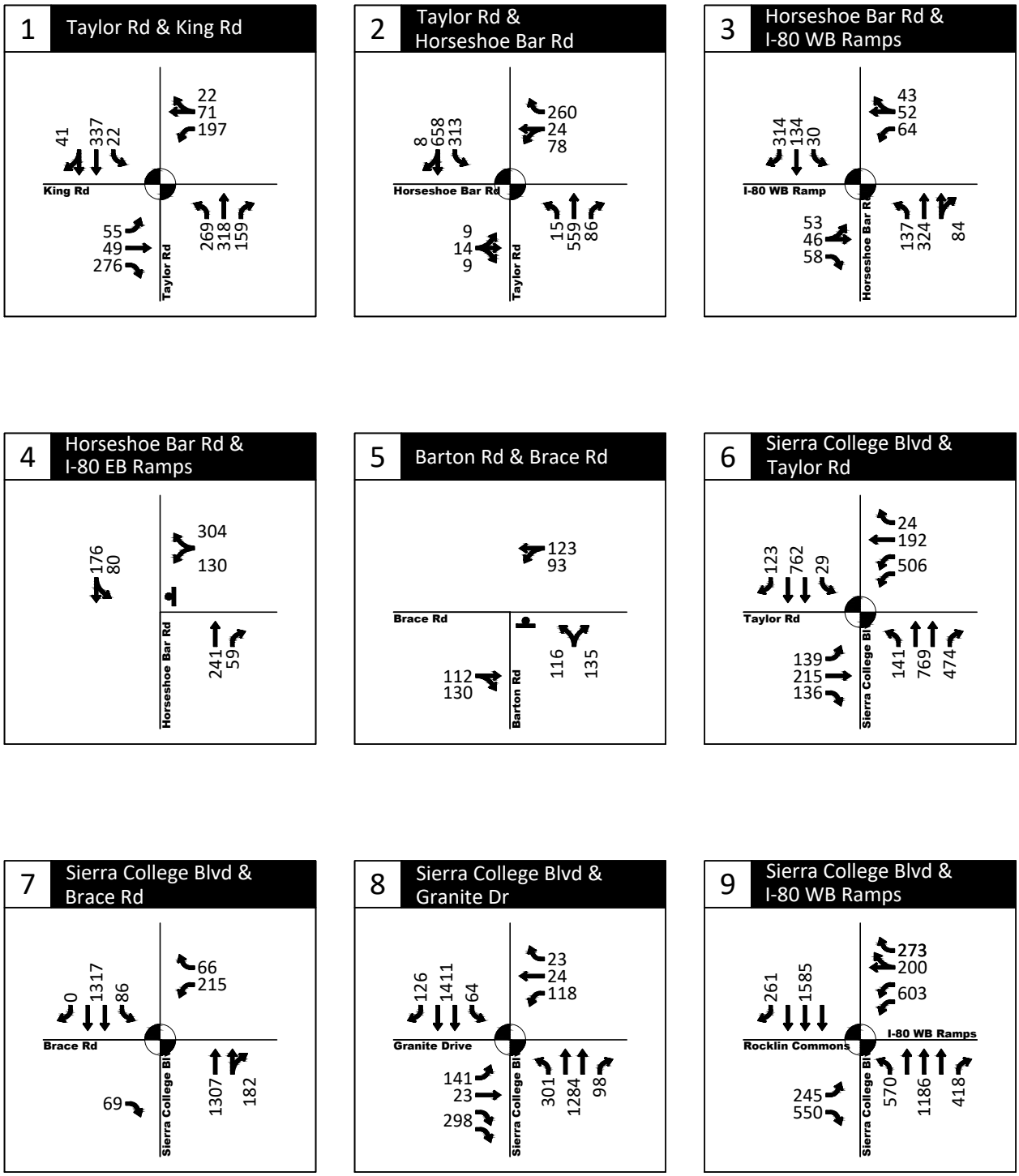
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
20E



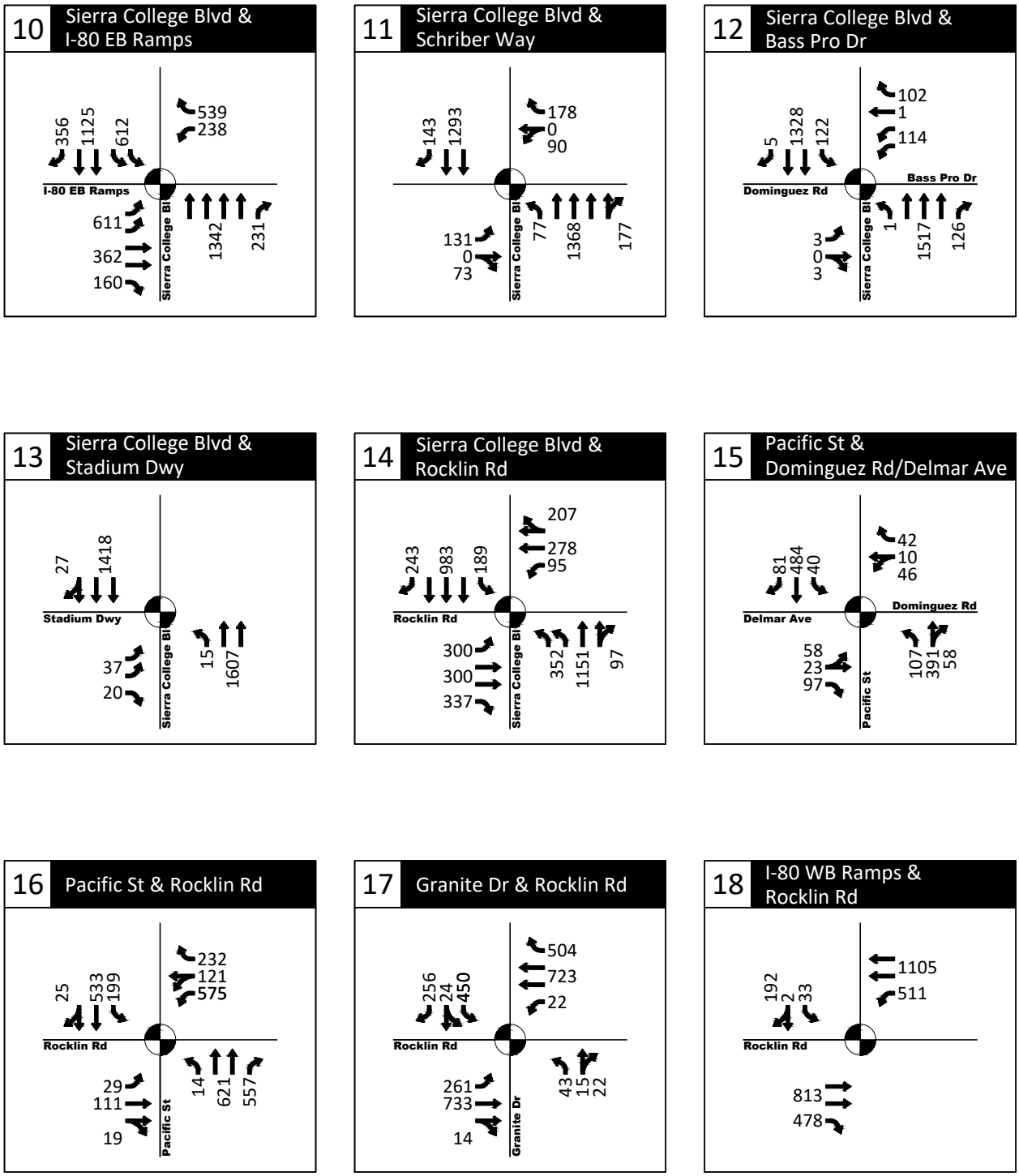
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
21A



- Weekend Midday Traffic Volume

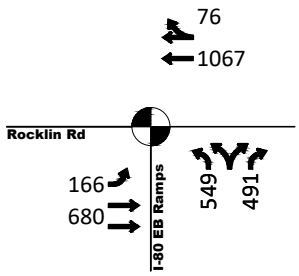
- Stop Sign

- Traffic Signal

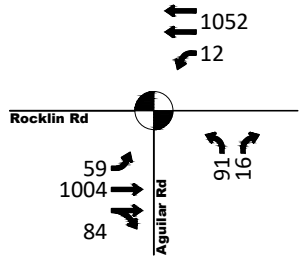
Cumulative Short Term Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
21B

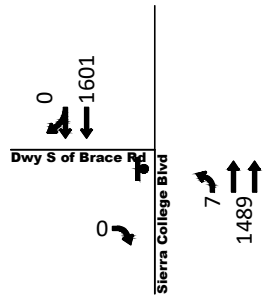
19 I-80 EB Ramps & Rocklin Rd



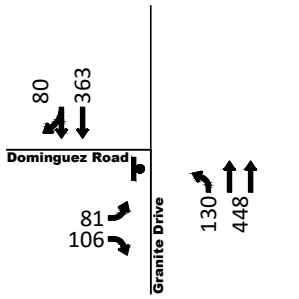
20 Aguilar Rd & Rocklin Rd



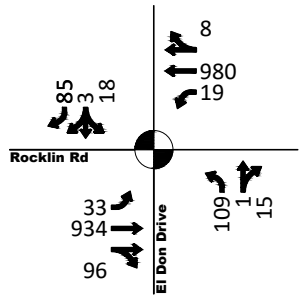
21 Sierra College Blvd & Office Dwy



22 Granite Dr & Dominguez Rd



23 El Don Drive & Rocklin Rd



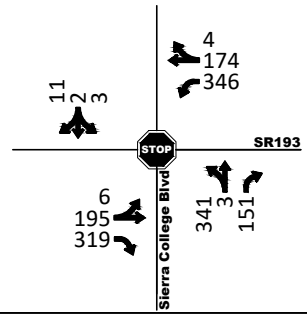
24 Sierra College Blvd & Project Driveway

Intersection Does Not Exist

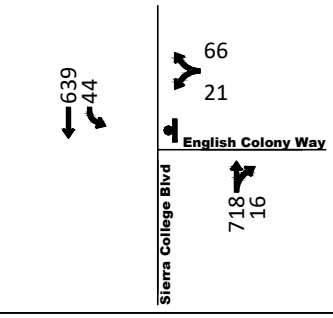
25 Project Driveway & Brace Rd

Intersection Does Not Exist

26 Sierra College Blvd & SR193



27 Sierra College Blvd & English Colony Way



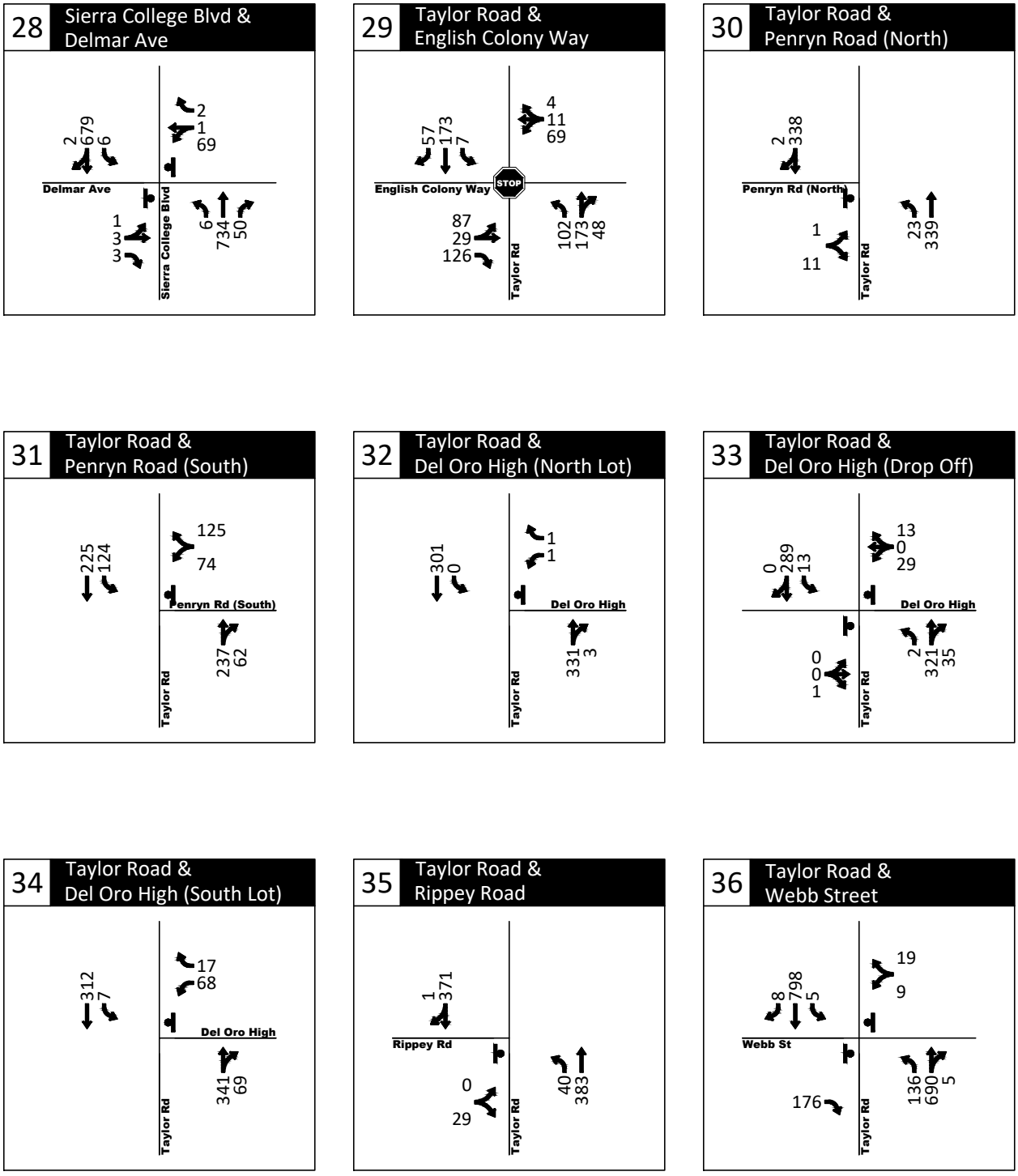
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
21C



- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
21D

- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
21E

KITTELSON & ASSOCIATES

7.1.1 Level-of-Service Analysis

Table 30 summarizes the LOS analysis for the study intersections under Cumulative Short Term Baseline conditions. Please note that the delays at some study intersections may be lower when compared to existing conditions due to signal timing optimization and/or recirculation of traffic due to the addition approved/pending projects.

As shown in Table 30, the following intersections would operate at unacceptable LOS:

- Taylor Road & King Road (PM)
- Horseshoe Bar Road & I-80 Eastbound Ramp (AM and PM)
- Sierra College Boulevard & Taylor Road (PM)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- Sierra College Boulevard & Rocklin Road (AM, PM, and MD)
- Pacific Street & Dominguez Road/Delmar Avenue (AM and PM)
- Pacific Street & Rocklin Road (AM, PM, and MD)
- Granite Drive & Rocklin Road (PM)
- Sierra College Boulevard & SR-193 (AM, PM, and MD)
- Sierra College Boulevard & English Colony Way (PM and MD)
- Sierra College Boulevard & Delmar Avenue (AM, PM, and MD)
- Taylor Road & Penryn Road (South) (AM and PM)
- Taylor Road & Del Oro High School North Lot (AM)
- Taylor Road & Del Oro High School Drop Off (AM and MD)
- Taylor Road & Del Oro High School South Lot (AM)
- Taylor Road & Webb Street (AM, PM, and MD)

Appendix “B” includes the level-of-service worksheets.

Table 30: Cumulative Short Term Baseline Conditions - Intersection LOS Analysis, Weekday AM/PM and Weekend Midday Peak Hour

ID	Intersection	Traffic Control Type	Weekday AM		Weekday PM		Weekend MD	
			Delay	LOS	Delay	LOS	Delay	LOS
1	Taylor Rd/King Rd	Signal	38.9	D	**59.8**	**E**	42.5	D
2	Taylor Rd/Horseshoe Bar Rd	Signal	23.3	C	30.0	C	20.1	C
3	Horseshoe Bar Rd/I-80 Westbound Ramp	Signal	13.7	B	14.0	B	13.4	B
4	Horseshoe Bar Rd/I-80 Eastbound Ramp	TWSC	**70.2**	**F**	**68.2**	**F**	28.7	D
5	Barton Rd/Brace Rd	TWSC	11.8	B	12.9	B	17.0	C
6	Sierra College Blvd/Taylor Rd	Signal	29.5	C	**40.5**	**D**	31.7	C
7	Sierra College Blvd/Brace Rd	Signal	10.7	B	18.3	B	15.1	B
8	Sierra College Blvd/Granite Dr	Signal	**35.9**	**D**	**58.2**	**E**	**39.9**	**D**
9	Sierra College Blvd/I-80 WB Ramps	Signal	34.3	C	66.5	E	76.5	E
10	Sierra College Blvd/I-80 EB Ramps	Signal	23.9	C	43.6	D	55.5	E
11	Sierra College Blvd/Schriber Way	Signal	15.3	B	17.0	B	20.8	C
12	Sierra College Blvd/Bass Pro Dr-Dominguez Rd	Signal	7.2	A	12.2	B	13.3	B
13	Sierra College Blvd/Stadium Dwy	Signal	7.2	A	7.1	A	5.7	A
14	Sierra College Blvd/Rocklin Rd	Signal	**99.6**	**F**	**90.0**	**F**	**60.1**	**E**
15	Pacific St/Dominguez Rd-Delmar Ave	Signal	**43.6**	**D**	**67.3**	**E**	32.1	C
16	Pacific St/Rocklin Rd	Signal	**88.7**	**F**	**78.9**	**E**	**48.7**	**D**
17	Granite Dr/Rocklin Rd	Signal	27.6	C	**43.7**	**D**	32.4	C
18	I-80 Westbound Ramps/Rocklin Rd	Signal	23.6	C	53.7	D	24.9	C
19	I-80 Eastbound Ramps/Rocklin Rd	Signal	35.5	D	44.6	D	25.3	C
20	Aguilar Rd/Rocklin Rd	Signal	11.3	B	9.4	A	8.6	A
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.2	A	17.6	C	0.1	A
22	Granite Dr/Dominguez Rd	TWSC	14.0	B	21.5	C	19.5	C
23	El Don Dr/Rocklin Rd	Signal	34.7	C	33.9	C	15.4	B
26	Sierra College Blvd/SR-193	AWSC	**41.8**	**E**	**79.4**	**F**	**48.0**	**E**
27	Sierra College Blvd/English Colony Way	TWSC	14.0	B	**78.8**	**F**	**25.5**	**D**
28	Sierra College Blvd/Delmar Avenue	TWSC	**103.3**	**F**	**328.6**	**F**	**145.2**	**F**
29	Taylor Rd/English Colony Way	AWSC	23.6	C	16.0	C	24.8	C
30	Taylor Rd/Penryn Road (North)	TWSC	14.6	B	10.5	B	10.9	B
31	Taylor Rd/Penryn Road (South)	TWSC	**347.2**	**F**	**25.7**	**D**	17.7	C
32	Taylor Rd/Del Oro High School North Lot	TWSC	**40.0**	**E**	14.0	B	19.5	C
33	Taylor Rd/Del Oro High School Drop-Off	TWSC	**358.0**	**F**	17.4	C	**42.3**	**E**

ID	Intersection	Traffic Control Type	Weekday AM		Weekday PM		Weekend MD	
			Delay	LOS	Delay	LOS	Delay	LOS
34	Taylor Rd/Del Oro High School South Lot	TWSC	**48.0**	**E**	18.7	C	23.1	C
35	Taylor Rd/Rippey Road	TWSC	14.3	B	12.3	B	14.4	B
36	Taylor Rd/Webb Street	TWSC	**25.2**	**D**	**59.1**	**F**	**8006.9**	**F**

Notes:
AWSC: All-way stop control – The average intersection delay is reported.
TWSC: Two-way stop control - The delay reported reflects the critical movement.
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.
Source: Kittelson & Associates, Inc. 2019

7.1.2 Queuing Analysis

Appendix C provides the queue summary for the weekday AM, PM and weekend midday peak hours. The queues at the following intersections would extend beyond the storage lengths available at these locations:

- Taylor Road & King Road (AM, PM, and MD)
- Taylor Road & Horseshoe Bar Road (AM, PM, and MD)
- Horseshoe Bar Road & I-80 Westbound Ramp (AM, PM, and MD)
- Sierra College Boulevard & Taylor Road (AM, PM, and MD)
- Sierra College Boulevard & Brace Road (PM and MD)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- Sierra College Boulevard & I-80 WB Ramps (AM, PM, and MD)
- Sierra College Boulevard & I-80 EB Ramps (PM and MD)
- Sierra College Boulevard & Schriber Way (AM, PM, and MD)
- Sierra College Boulevard & Rocklin Road (AM, PM, and MD)
- Pacific Street & Rocklin Road (AM, PM, and MD)
- Granite Drive & Rocklin Road (AM, PM, and MD)
- I-80 Westbound Ramps & Rocklin Road (PM and MD)
- I-80 Eastbound Ramps & Rocklin Road (AM and PM)
- Aguilar Road & Rocklin Road (AM and PM)
- El Don Drive & Rocklin Road (AM)
- Sierra College Boulevard & SR-193 (MD)
- Taylor Road & English Colony Way (AM and MD)
- Taylor Road & Del Oro High School Drop Off (AM)
- Taylor Road & Del Oro High School South Lot (AM)

In addition, the queues reported at the above locations would affect operations at the upstream locations as shown:

- The northbound through at Sierra College Boulevard & Taylor Road would affect operations at Sierra College Boulevard & Brace Road (PM)
- The northbound left-turn at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (PM and MD)
- The northbound through at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (PM and MD)
- The southbound through at Sierra College Boulevard & I-80 WB Ramps would affect operations at Sierra College Boulevard & Granite Drive (AM, PM and MD)
- The southbound through at Sierra College Boulevard & Schriber Way would affect operations at Sierra College Boulevard & I-80 EB Ramps (AM, PM, and MD)
- The westbound left at I-80 Westbound Ramps & Rocklin Road would affect operations at I-80 Eastbound Ramps & Rocklin Road (PM)
- The westbound through at I-80 Eastbound Ramps & Rocklin Road would affect operations at Aguilar Road & Rocklin Road (AM and PM)
- The eastbound through at Aguilar Road & Rocklin Road would affect operations at I-80 Eastbound Ramps & Rocklin Road (AM)

7.2 PLACER COUNTY ROADWAY OPERATIONS

Analysis for the study segments was conducted using the LOS criteria defined as noted in Section 3.1. Table 31 outlines the roadway volume and associated level of service for the study segments. As shown, all study segments satisfy the LOS C or better standard.

Table 31: Cumulative Short Term Conditions – Placer County Weekday ADT Roadway Segment LOS Analysis

Roadway	Segment	Number of Lanes	ADT	LOS
Sierra College Boulevard (SCB)	SR-193 to English Colony Way	2	9,040	A
	English Colony Way to Delmar Ave	2	12,130	B
	Delmar Ave to Loomis Town Limits	2	12,130	B
SR-193	Lincoln City Limits to SCB	2	11,300	B
	SCB to Clark Tunnel Road	2	7,850	A

Notes:
ADT volumes sourced from Bickford Ranch Specific Plan EIR Addendum (October 2015) and adjusted based on City of Rocklin Travel Demand Model Growth Rates. Source:
Kittelson & Associates, Inc. 2018

7.3 FREEWAY FACILITIES EVALUATION

Freeway mainline traffic volumes were calculated by adding approved/pending project trips to the existing data collected from PeMS.

7.3.1 Freeway Mainline Basic Segment Analysis

Table 32 outlines the Short Term Cumulative mainline volume, density and associated level of service for the study segments. As shown, all study segments operate at acceptable LOS D or better.

Appendix "E" includes the freeway mainline level-of-service worksheets.

Table 32: Cumulative Short Term Baseline Conditions – I-80 Mainline LOS Analysis, Weekday AM/PM Peak Hours

ID	Segment	Direction	Weekday AM			Weekday PM			Weekend MD		
			Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS
1	I-80 east of Sierra College Boulevard	Eastbound	3,288	20.1	C	4,564	29.0	D	4,187	23.8	C
		Westbound	4,134	26.0	C	4,068	25.5	C	4,243	23.6	C
2	I-80 west of Sierra College Boulevard	Eastbound	3,216	19.7	C	4,419	27.8	D	4,392	25.1	C
		Westbound	3,923	24.4	C	4,016	25.1	C	4,198	23.3	C

Notes:
Density: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

7.3.2 Ramp Metering Supplemental Evaluation

The evalaution was prepared for informational purposes. Table 33 shows the calculated queues in feet and the minimum metering rate in vehicles per hour. The generated queues are accommodated within the available 1,200-foot long storage area.

Appendix "I" includes the ramp metering worksheets.

Table 33: Cumulative Short Term Baseline Conditions – I-80 Westbound Slip-Ramp Ramp Meter Analysis

Peak Hour	Meter Rate (vehicles/hour)	Calculated Queue (feet)
AM	240	11
PM	300	134
MD	300	0

Notes:
Boldface type indicates if queue exceeds available ramp storage capacity of 1,200 feet.
Source: Kittelson & Associates, Inc. 2019

7.4 PEDESTRIAN AND BICYCLE EVALUATION

No pedestrian or bicycle facility improvements were programmed under Cumulative Short Term Conditions beyond typical frontage improvements associated with approved development projects.

7.5 TRANSIT EVALUATION

No transit service improvements were programmed under Cumulative Short Term Conditions. The effect of approved in-process development on traffic flow could affect travel time for transit vehicles. Traffic flow effects due to approved in-process development are addressed in the intersection evaluation sections of this study.

Section 8
Cumulative Conditions – Short Term Plus Project

8.0 CUMULATIVE CONDITIONS – SHORT TERM PLUS PROJECT

The Cumulative Short Term plus Project traffic conditions analysis forecasts how the study area's transportation system would operate with the traffic generated by the proposed Costco development.

8.1 INTERSECTION EVALUATION

Development of the proposed Costco Project would include construction of multiple access points and several roadway capacity improvement measures. The changes to be constructed are detailed in Sections 5.1 and 5.1.2 of this report and include widening of Sierra College Boulevard to three lanes northbound between Granite Drive and Brace Road, signalization of the Sierra College Boulevard Project access, addition of northbound turn lanes on Sierra College Boulevard at the new traffic signal and Brace Road, changes to the Brace Road site frontage, and reconfiguration of Granite Drive east of Sierra College Boulevard (Project Driveway Options B and C only).

Cumulative Short Term Baseline Conditions traffic volumes for the weekday AM and PM as well as weekend midday peak hours were added to the site-generated traffic to arrive at the Short Term plus Project traffic volumes.

Figure 22 shows the Cumulative Short Term plus Project (Project Driveway Option 1A) traffic condition during weekday AM and PM peak hours and Figure 23 shows the Cumulative Short Term plus Project (Project Driveway Option 1A) traffic condition during the weekend midday peak hour. Project Driveway Options 1B and 1C would affect Cumulative Short Term plus Project traffic volumes at study intersections 7, 8, 21, 24, 25, and 37 due to the driveway trip routing. All other study intersections would have the same Cumulative Short Term plus Project traffic volumes under Project Driveway Options 1B and 1C as they would under Project Driveway Option 1A. Figure 24 shows the Cumulative Short Term plus Project traffic condition during the weekday AM and PM peak hours for all three Project driveway options at those study intersections affected by the options. Figure 25 shows the Cumulative Short Term plus Project Alternative traffic condition during the weekend midday peak hour for all three Project driveway options at those study intersections affected by the options.

8.1.1 Level-of-Service Analysis

To gauge the impact of the Project traffic on the roadway network, the Project analysis assumed that study intersection signal timings would be unchanged from those in baseline conditions (including coordination timing at the I-80 ramps at Sierra College Boulevard) except at study locations where the Project provides geometric improvements.

Project Driveway Option 1A

Table 34 shows the baseline Cumulative Short Term No-Project and Plus Project (Project Driveway Option 1A) delays and LOS for the study intersections during the weekday AM and PM peak hours. Table 35 shows the baseline Cumulative Short Term No-Project and Plus Project (Project Driveway Option 1A)

delays and LOS for the study intersections during the weekend midday peak hour. Please note that the delays at some study intersections may be lower when compared to existing or existing plus Project conditions due to geometric improvements and corresponding signal timing optimization and/or recirculation of traffic associated with the addition of approved/pending projects.

As shown in the tables below, the following intersections operate at unacceptable LOS:

- Taylor Road & King Road (PM)
- Horseshoe Bar Road & I-80 Eastbound Ramp (AM and PM)
- Sierra College Boulevard & Taylor Road (PM and MD)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- Sierra College Boulevard & I-80 Westbound Ramps (PM and MD)
- Sierra College Boulevard & Rocklin Road (AM, PM, and MD)
- Pacific Street & Dominguez Road/Delmar Avenue (AM, PM, and MD)
- Pacific Street & Rocklin Road (AM, PM, and MD)
- Granite Drive & Rocklin Road (PM and MD)
- Sierra College Boulevard & SR-193 (AM, PM, and MD)
- Sierra College Boulevard & English Colony Way (PM and MD)
- Sierra College Boulevard & Delmar Avenue (AM, PM, and MD)
- Taylor Road & English Colony Way (MD)
- Taylor Road & Penryn Road (South) (AM and PM)
- Taylor Road & Del Oro High School North Lot (AM)
- Taylor Road & Del Oro High School Drop Off (AM and MD)
- Taylor Road & Del Oro High School South Lot (AM)
- Taylor Road & Webb Street (AM, PM, and MD)

Based on the impact criteria defined earlier, the following intersections would be significantly impacted by the proposed Project:

- Sierra College Boulevard & Taylor Road (MD)
- Sierra College Boulevard & Granite Drive (PM and MD)
- Sierra College Boulevard & I-80 WB Ramps (PM and MD)
- Pacific Street & Dominguez Road/Delmar Avenue (MD)
- Granite Drive & Rocklin Road (MD)
- Sierra College Boulevard & SR-193 (PM and MD)
- Sierra College Boulevard & English Colony Way (PM and MD)
- Taylor Road & English Colony Way (MD)

- Taylor Road & Penryn Road (South) (AM)
- Taylor Road & Webb Street (MD)

Appendix "B" includes the level-of-service worksheets.

Table 34: Cumulative Short Term Plus Project - Intersection LOS Analysis, Weekday AM/PM Peak Hour – Project Driveway Option 1A

ID	Intersection	Traffic Control Type	Weekday AM				Change in Delay (sec)	Weekday PM				Change in Delay (sec)
			Short Term		plus Project			Short Term		plus Project		
			Delay (Sec)	LOS	Delay (Sec)	LOS		Delay (Sec)	LOS	Delay (Sec)	LOS	
1	Taylor Rd/ King Rd	Signal	38.9	D	39.5	D	0.6	**59.8**	**E**	**62.0**	**E**	2.2
2	Taylor Rd/ Horseshoe Bar Rd	Signal	23.3	C	23.6	C	0.3	30.0	C	31.6	C	1.6
3	Horseshoe Bar Rd/ I-80 Westbound Ramp	Signal	13.7	B	13.7	B	0.0	14.0	B	14.0	B	0.0
4	Horseshoe Bar Rd/ I-80 Eastbound Ramp[1]	TWSC	**70.2**	**F**	**70.2**	**F**	0.0	**68.2**	**F**	**68.2**	**F**	0.0
5	Barton Rd/Brace Rd	TWSC	11.8	B	11.9	B	0.1	12.9	B	13.1	B	0.2
6	Sierra College Blvd/ Taylor Rd	Signal	29.5	C	30.3	C	0.8	**40.5**	**D**	**44.1**	**D**	3.6
7	Sierra College Blvd/ Brace Rd	Signal	10.7	B	14.1	B	3.4	18.3	B	16.9	B	-1.4
8	Sierra College Blvd/ Granite Dr	Signal	**35.9**	**D**	**36.7**	**D**	0.8	**58.2**	**E**	**105.1**	**F**	46.9
9	Sierra College Blvd/ I-80 WB Ramps	Signal	34.3	C	41.9	D	7.6	66.5	E	**96.6**	**F**	30.1
10	Sierra College Blvd/ I-80 EB Ramps	Signal	23.9	C	24.2	C	0.3	43.6	D	45.2	D	1.6
11	Sierra College Blvd/ Schriber Way	Signal	15.3	B	15.3	B	0.0	17.0	B	17.1	B	0.1
12	Sierra College Blvd/ Bass Pro Dr-Dominguez Rd	Signal	7.2	A	7.3	A	0.1	12.2	B	12.4	B	0.2
13	Sierra College Blvd/ Stadium Dwy	Signal	7.2	A	7.2	A	0.0	7.1	A	7.2	A	0.1
14	Sierra College Blvd/ Rocklin Rd	Signal	**99.6**	**F**	**99.7**	**F**	0.1	**90.0**	**F**	**92.4**	**F**	2.4
15	Pacific St/ Dominguez Rd-Delmar Ave	Signal	**43.6**	**D**	**44.0**	**D**	0.4	**67.3**	**E**	**68.3**	**E**	1.0
16	Pacific St/ Rocklin Rd	Signal	**88.7**	**F**	**89.0**	**F**	0.3	**78.9**	**E**	**80.0**	**E**	1.1
17	Granite Dr/ Rocklin Rd	Signal	27.6	C	27.7	C	0.1	**43.7**	**D**	**45.2**	**D**	1.5
18	I-80 WB Ramps/ Rocklin Rd	Signal	23.6	C	23.6	C	0.0	53.7	D	53.7	D	0.0
19	I-80 Eastbound Ramps/ Rocklin Rd	Signal	35.5	D	35.5	D	0.0	44.6	D	44.6	D	0.0
20	Aguilar Rd/ Rocklin Rd	Signal	11.3	B	11.4	B	0.1	9.4	A	9.5	A	0.1
21	Sierra College Blvd/ Dwy South of Brace Rd	TWSC	0.2	A	0.2	A	0.0	17.6	C	18.2	C	0.6
22	Granite Dr/ Dominguez Rd	TWSC	14.0	B	14.1	B	0.1	21.5	C	22.1	C	0.6

ID	Intersection	Traffic Control Type	Weekday AM				Change in Delay (sec)	Weekday PM				Change in Delay (sec)
			Short Term		plus Project			Short Term		plus Project		
			Delay (Sec)	LOS	Delay (Sec)	LOS		Delay (Sec)	LOS	Delay (Sec)	LOS	
23	El Don Dr/ Rocklin Rd	Signal	34.7	C	34.8	C	0.1	33.9	C	34.0	C	0.1
24	Sierra College Boulevard/ Project Driveway	Signal	DNE		6.6	A	-	DNE		13.5	B	-
25	Brace Road/ Project Driveway	TWSC	DNE		0.0	A	-	DNE		10.1	B	-
26	Sierra College Blvd/ SR-193	AWSC	**41.8**	**E**	**43.3**	**E**	1.5	**79.4**	**F**	**83.1**	**F**	3.7
27	Sierra College Blvd/ English Colony Way	TWSC	14.0	B	14.9	B	0.9	**78.8**	**F**	**97.7**	**F**	18.9
28	Sierra College Blvd/ Delmar Avenue[2]	TWSC	**103.3**	**F**	**108.4**	**F**	5.1	**328.6**	**F**	**388.4**	**F**	59.8
29	Taylor Rd/ English Colony Way	AWSC	23.6	C	23.9	C	0.3	16.0	C	16.2	C	0.2
30	Taylor Rd/ Penryn Road (North)	TWSC	14.6	B	14.6	B	0.0	10.5	B	10.5	B	0.0
31	Taylor Rd/ Penryn Road (South)	TWSC	**347.2**	**F**	**354.9**	**F**	7.7	**25.7**	**D**	**27.3**	**D**	1.6
32	Taylor Rd/ Del Oro High School North Lot[1]	TWSC	**40.0**	**E**	**40.8**	**E**	0.8	14.0	B	14.2	B	0.2
33	Taylor Rd/ Del Oro High School Drop-Off[1]	TWSC	**358.0**	**F**	**365.5**	**F**	7.5	17.4	C	17.7	C	0.3
34	Taylor Rd/ Del Oro High School South Lot[1]	TWSC	**48.0**	**E**	**48.5**	**E**	0.5	18.7	C	18.9	C	0.2
35	Taylor Rd/ Rippey Road	TWSC	14.3	B	14.3	B	0.0	12.3	B	12.4	B	0.1
36	Taylor Rd/ Webb Street[1]	TWSC	**25.2**	**D**	**25.9**	**D**	0.7	**59.1**	**F**	**66.4**	**F**	7.3
37	Sierra College Boulevard/ Project Driveway East	TWSC	DNE		10.4	B	-	DNE		11.2	B	-

Notes:
AWSC: All-way stop control – The average intersection delay is reported.

TWSC: Two-way stop control - The delay reported reflects the critical movement.

DNE: Intersection does not exist under no Project conditions.

Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.

Shaded cell indicates Project impact

[1] An impact is significant in situations when the intersection is already operating at unacceptable LOS and the Project adds trips to the intersection exceeding 5% of the total traffic already at the intersection. At these locations, the project does not contribute 5% or more of the volumes.

[2] Intersection does not meet signal warrants for impacts condition, therefore per the Placer County guidelines, this intersection is not significantly impacted. Traffic signal warrants provided in Appendix J.

Source: Kittelson & Associates, Inc. 2019

Table 35: Cumulative Short Term Plus Project - Intersection LOS Analysis, Weekend Midday Peak Hour – Project Driveway Option 1A

ID	Intersection	Traffic Control Type	Short Term		plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay	LOS	
1	Taylor Rd/King Rd	Signal	42.5	D	48.8	D	6.3
2	Taylor Rd/Horseshoe Bar Rd	Signal	20.1	C	22.0	C	1.9
3	Horseshoe Bar Rd/I-80 Westbound Ramp	Signal	13.4	B	13.4	B	0.0
4	Horseshoe Bar Rd/I-80 Eastbound Ramp	TWSC	28.7	D	28.7	D	0.0
5	Barton Rd/Brace Rd	TWSC	17.0	C	18.0	C	1.0
6	Sierra College Blvd/Taylor Rd	Signal	31.7	C	**38.9**	**D**	7.2
7	Sierra College Blvd/Brace Rd	Signal	15.1	B	17.4	B	2.3
8	Sierra College Blvd/Granite Dr	Signal	**39.9**	**D**	**75.1**	**E**	35.2
9	Sierra College Blvd/I-80 WB Ramps	Signal	76.5	E	**126.6**	**F**	50.1
10	Sierra College Blvd/I-80 EB Ramps	Signal	55.5	E	43.1	D	-12.4[4]
11	Sierra College Blvd/Schriber Way	Signal	20.8	C	21.0	C	0.2
12	Sierra College Blvd/Bass Pro Dr-Dominguez Rd	Signal	13.3	B	13.5	B	0.2
13	Sierra College Blvd/Stadium Dwy	Signal	5.7	A	6.0	A	0.3
14	Sierra College Blvd/Rocklin Rd	Signal	**60.1**	**E**	**64.4**	**E**	4.3
15	Pacific St/Dominguez Rd-Delmar Ave	Signal	32.1	C	**35.4**	**D**	3.3
16	Pacific St/Rocklin Rd	Signal	**48.7**	**D**	**50.6**	**D**	1.9
17	Granite Dr/Rocklin Rd	Signal	32.4	C	**35.2**	**D**	2.8
18	I-80 Westbound Ramps/Rocklin Rd	Signal	24.9	C	24.9	C	0.0
19	I-80 Eastbound Ramps/Rocklin Rd	Signal	25.3	C	25.3	C	0.0
20	Aguilar Rd/Rocklin Rd	Signal	8.6	A	8.7	A	0.1
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.1	A	0.1	A	0.0
22	Granite Dr/Dominguez Rd	TWSC	19.5	C	20.4	C	0.9
23	El Don Dr/Rocklin Rd	Signal	15.4	B	15.7	B	0.3
24	Sierra College Boulevard/Project Driveway	Signal	DNE		16.0	B	-
25	Brace Road/Project Driveway	TWSC	DNE		9.9	A	-
26	Sierra College Blvd/SR-193	AWSC	**48.0**	**E**	**54.0**	**F**	6.0
27	Sierra College Blvd/English Colony Way	TWSC	**25.5**	**D**	**30.3**	**D**	4.8
28	Sierra College Blvd/Delmar Avenue[2]	TWSC	**145.2**	**F**	**205.3**	**F**	60.1
29	Taylor Rd/English Colony Way	AWSC	24.8	C	**27.5**	**D**	2.7
30	Taylor Rd/Penryn Road (North)	TWSC	10.9	B	11.0	B	0.1
31	Taylor Rd/Penryn Road (South)	TWSC	17.7	C	18.9	C	1.2

ID	Intersection	Traffic Control Type	Short Term		plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay	LOS	
32	Taylor Rd/Del Oro High School North Lot	TWSC	19.5	C	20.5	C	1.0
33	Taylor Rd/Del Oro High School Drop-Off[1]	TWSC	**42.3**	**E**	**48.2**	**E**	5.9
34	Taylor Rd/Del Oro High School South Lot	TWSC	23.1	C	24.2	C	1.1
35	Taylor Rd/Rippey Road	TWSC	14.4	B	15.0	C	0.6
36	Taylor Rd/Webb Street	TWSC	**8006.9**	**F**	**ERR[3]**	**F**	-
37	Sierra College Boulevard/ Project Driveway East	TWSC	DNE		11.1	B	-

Notes:
AWSC: All-way stop control – The average intersection delay is reported.

TWSC: Two-way stop control - The delay reported reflects the critical movement.

DNE: Intersection does not exist under no Project conditions.

Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.

Shaded cell indicates significant Project impact

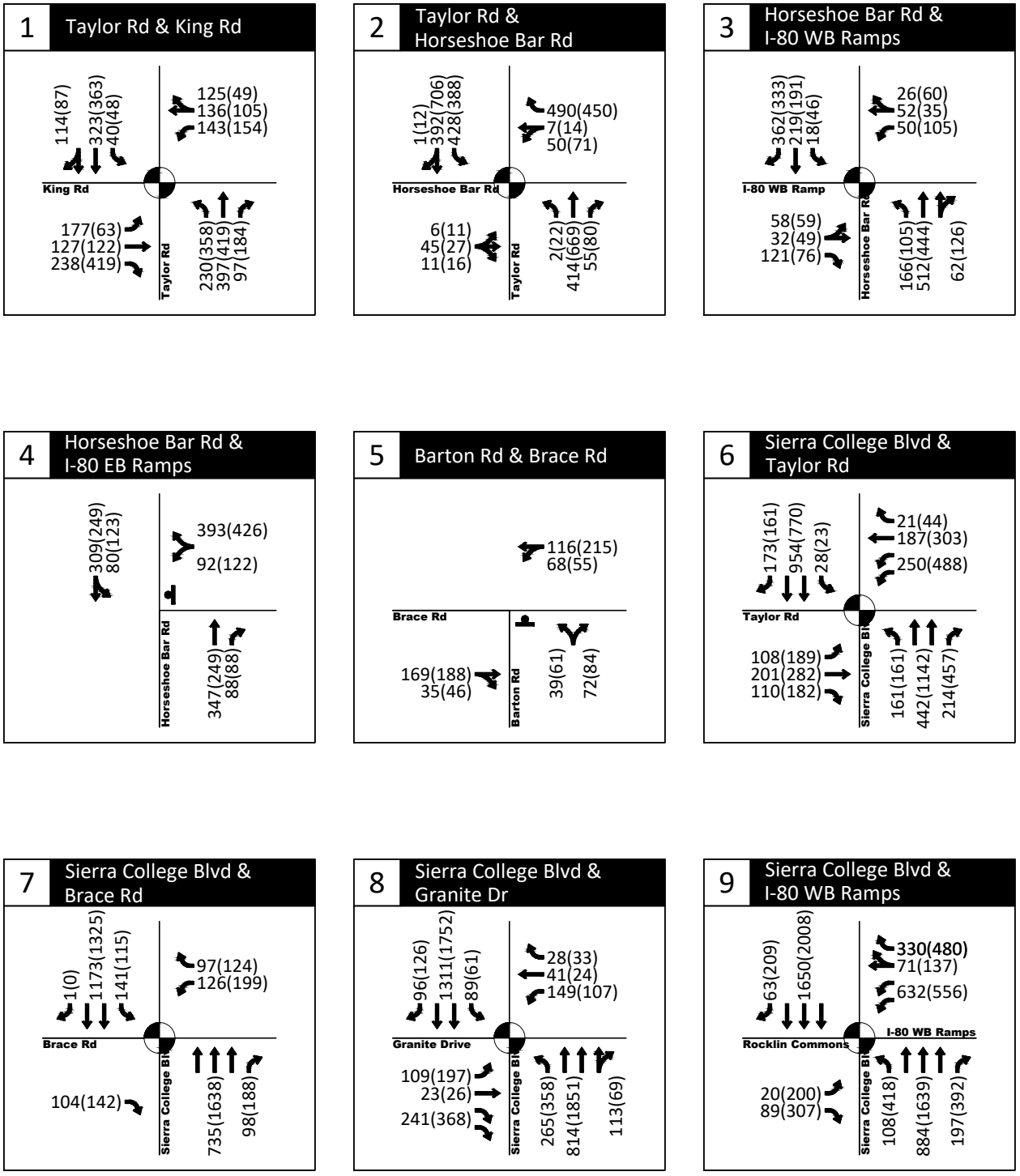
[1] An impact is significant in situations when the intersection is already operating at unacceptable LOS and the Project adds trips to the intersection exceeding 5% of the total traffic already at the intersection. At these locations, the project does not contribute 5% or more of the volumes.

[2] Intersection does not meet signal warrants for impacts condition, therefore per the Placer County guidelines, this intersection is not significantly impacted. Traffic signal warrants provided in Appendix J.

[3] Due to the high volumes, HCM2010 was unable to report approach delay.

[4] Timing was held constant between No Project and Project conditions. Volume increases at certain movements adds more weight to the average intersection delay calculation, lowering the overall intersection delay

Source: Kittelson & Associates, Inc. 2019



AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

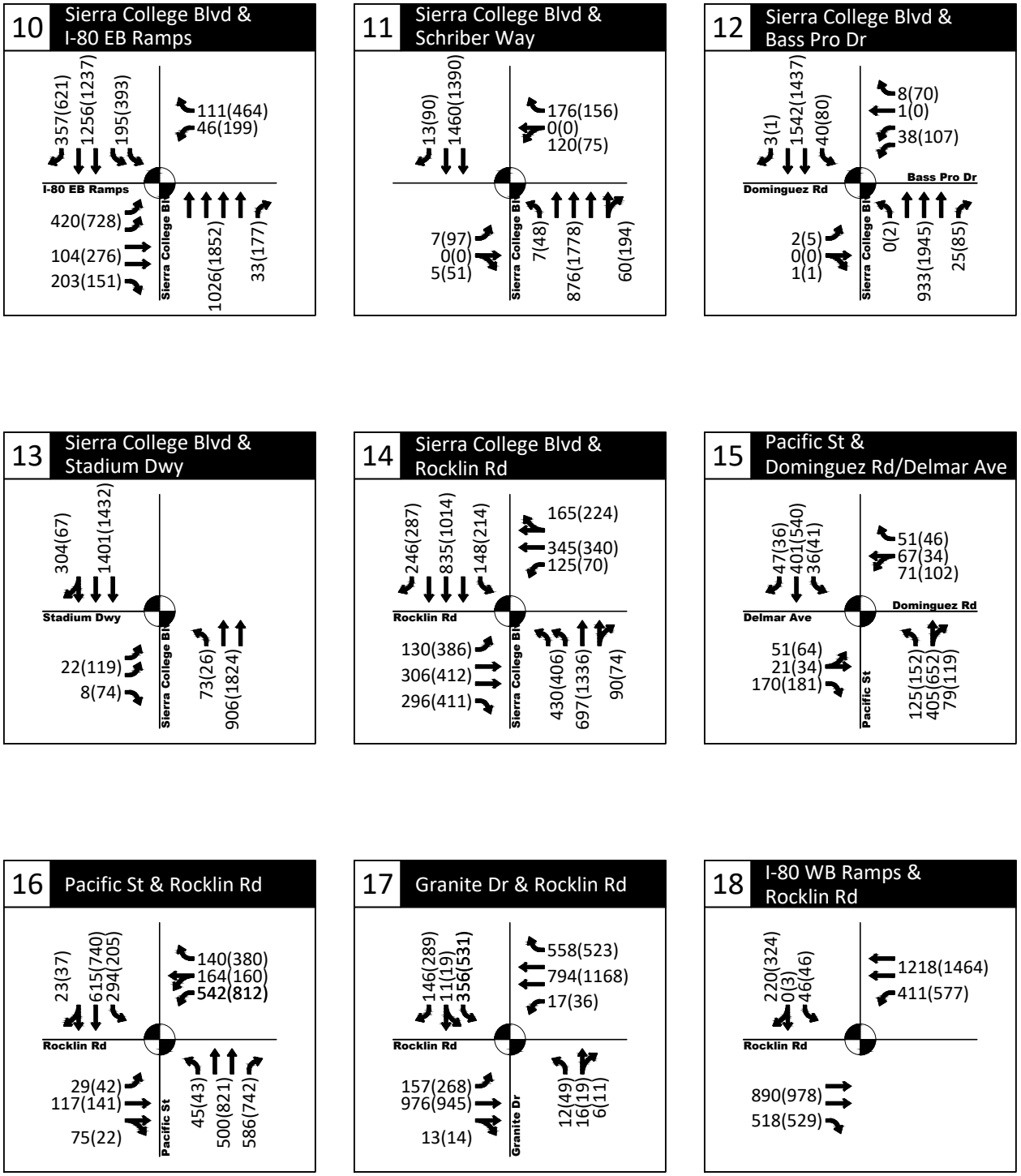
Cumulative Short Term Plus Project Traffic Conditions

Weekday AM and PM Peak Hours - Project Driveway Option 1A

Loomis, California

Figure 22A

KITTELSON & ASSOCIATES



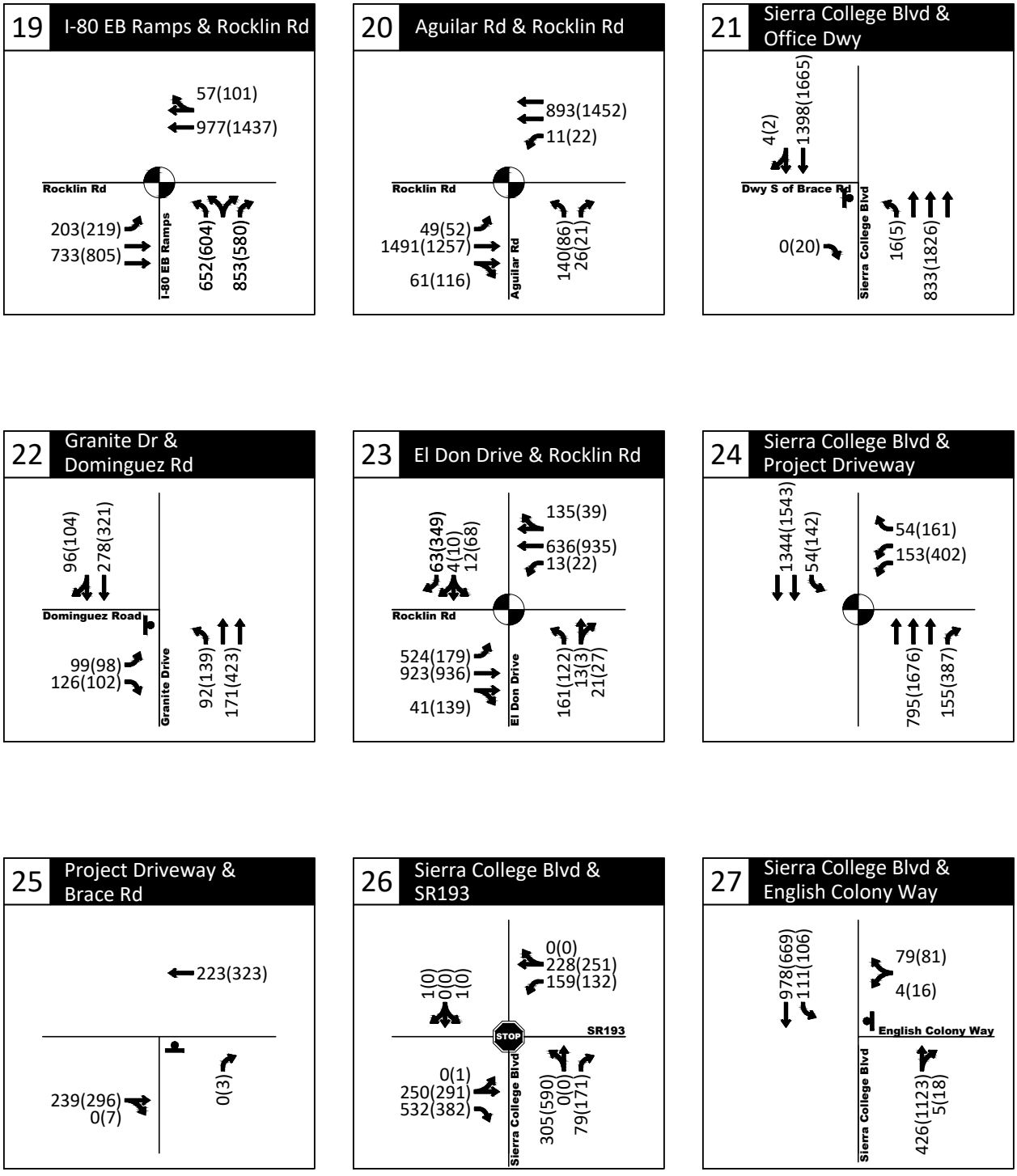
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
22B



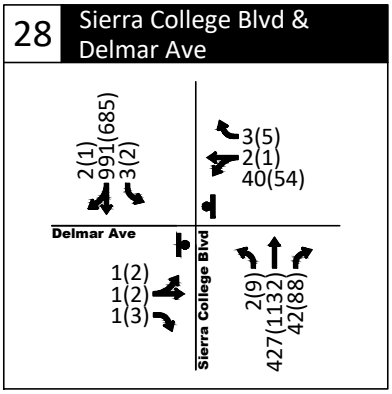
AM(PM) - Weekday Traffic Volume

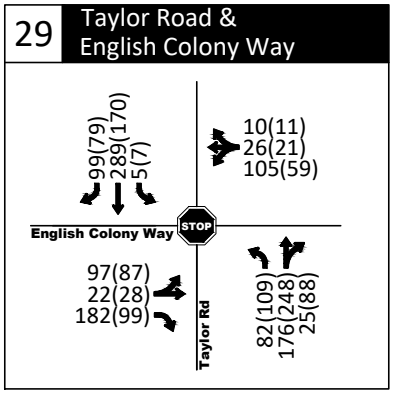
- Stop Sign

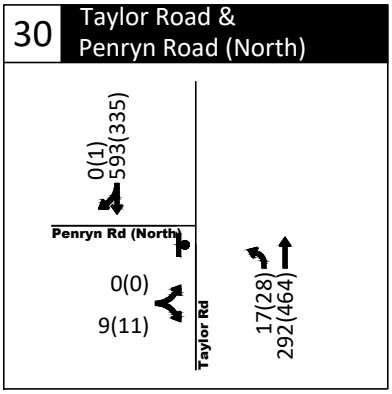
- Traffic Signal

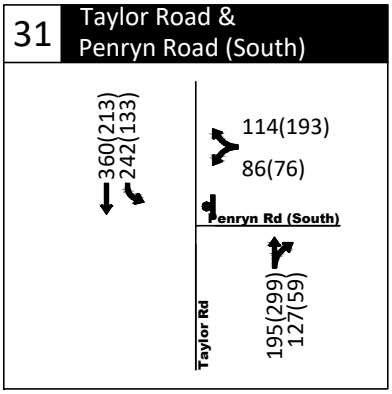
Cumulative Short Term Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

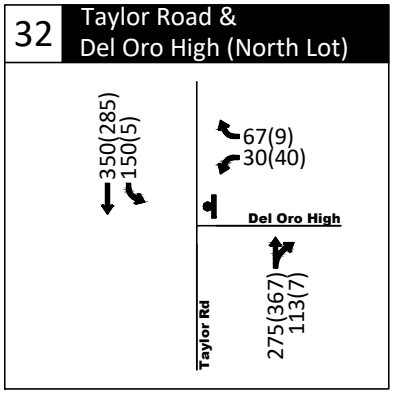
Figure
22C

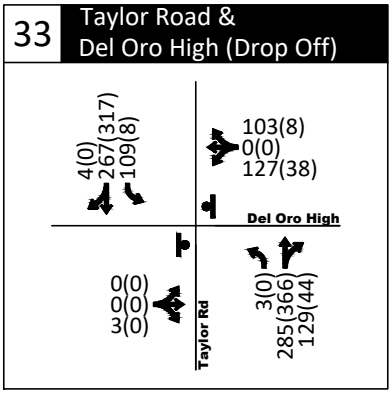


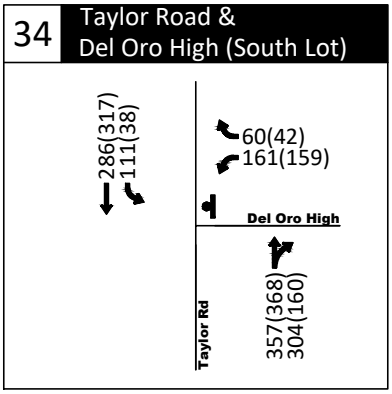


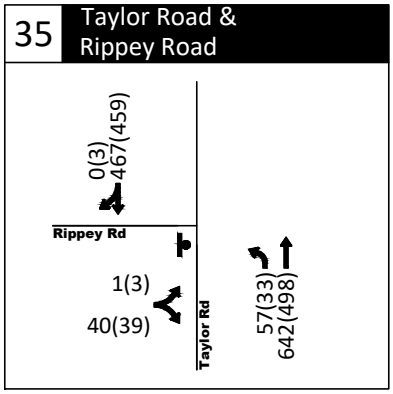


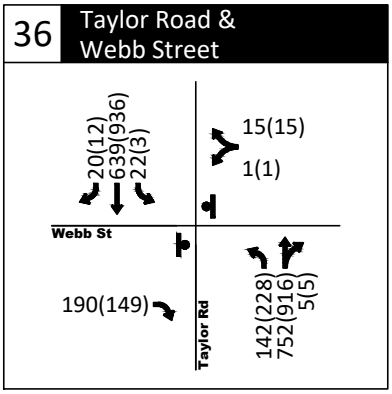












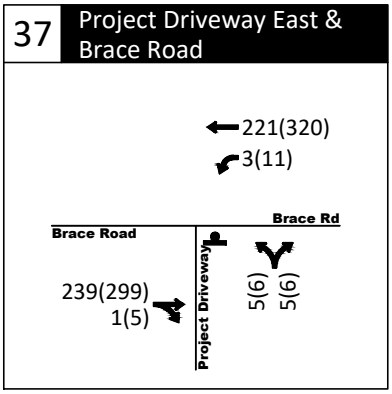
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

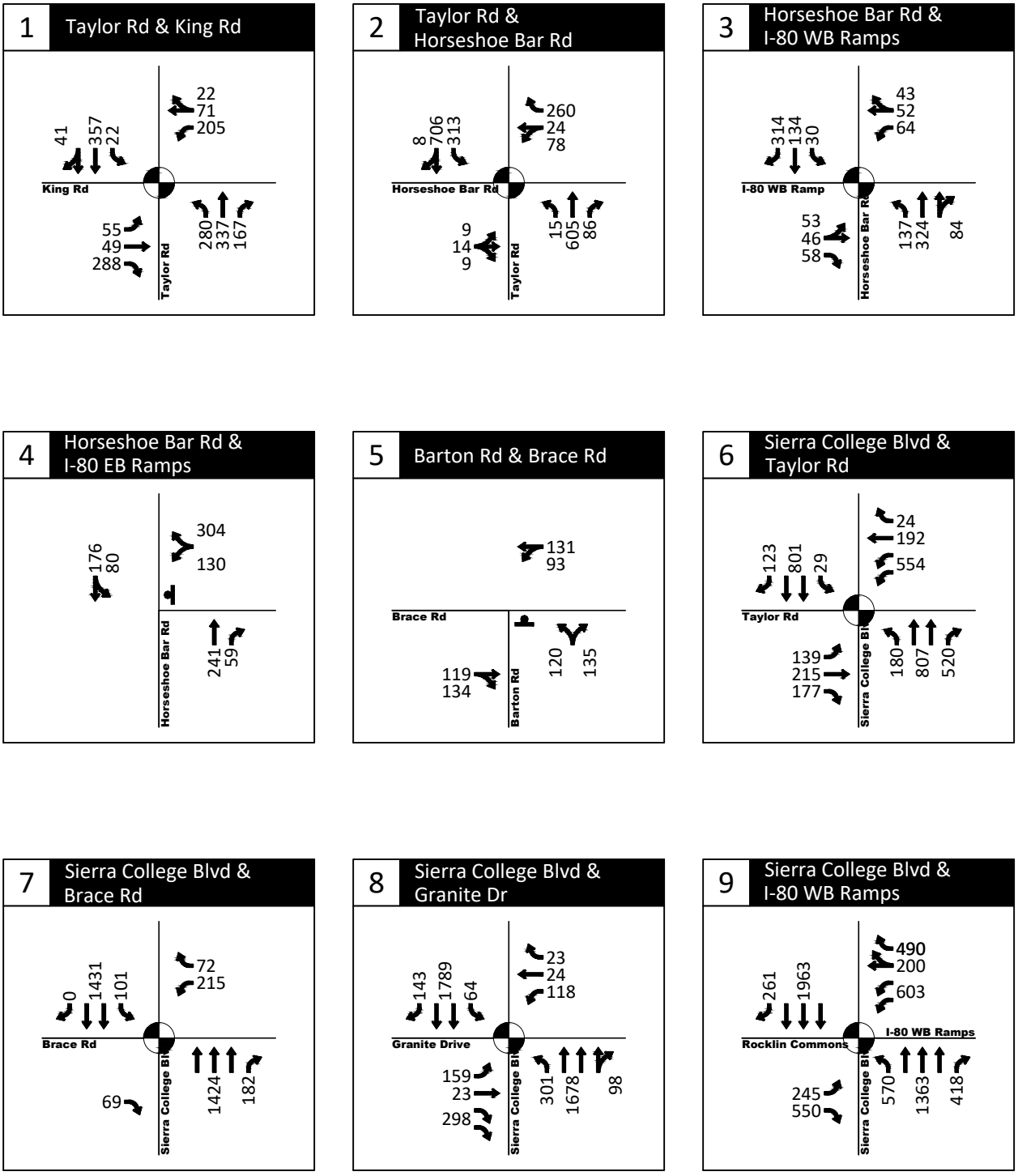
Figure
22D



AM(PM) - Weekday Traffic Volume
- Stop Sign
- Traffic Signal

Cumulative Short Term Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
22E



- Weekend Midday Traffic Volume

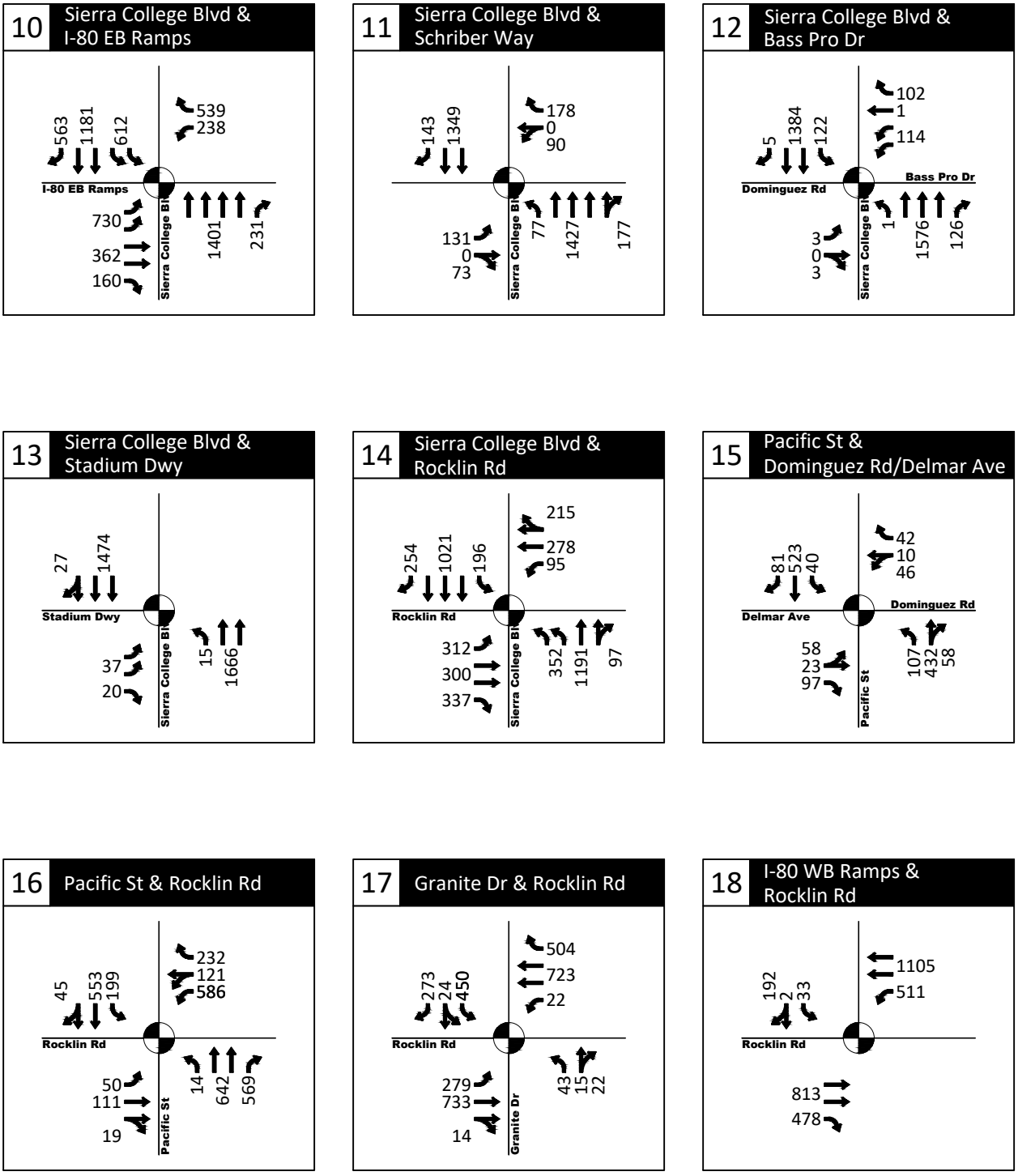
- Stop Sign

- Traffic Signal

Cumulative Short Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
23A

KITTELSON & ASSOCIATES



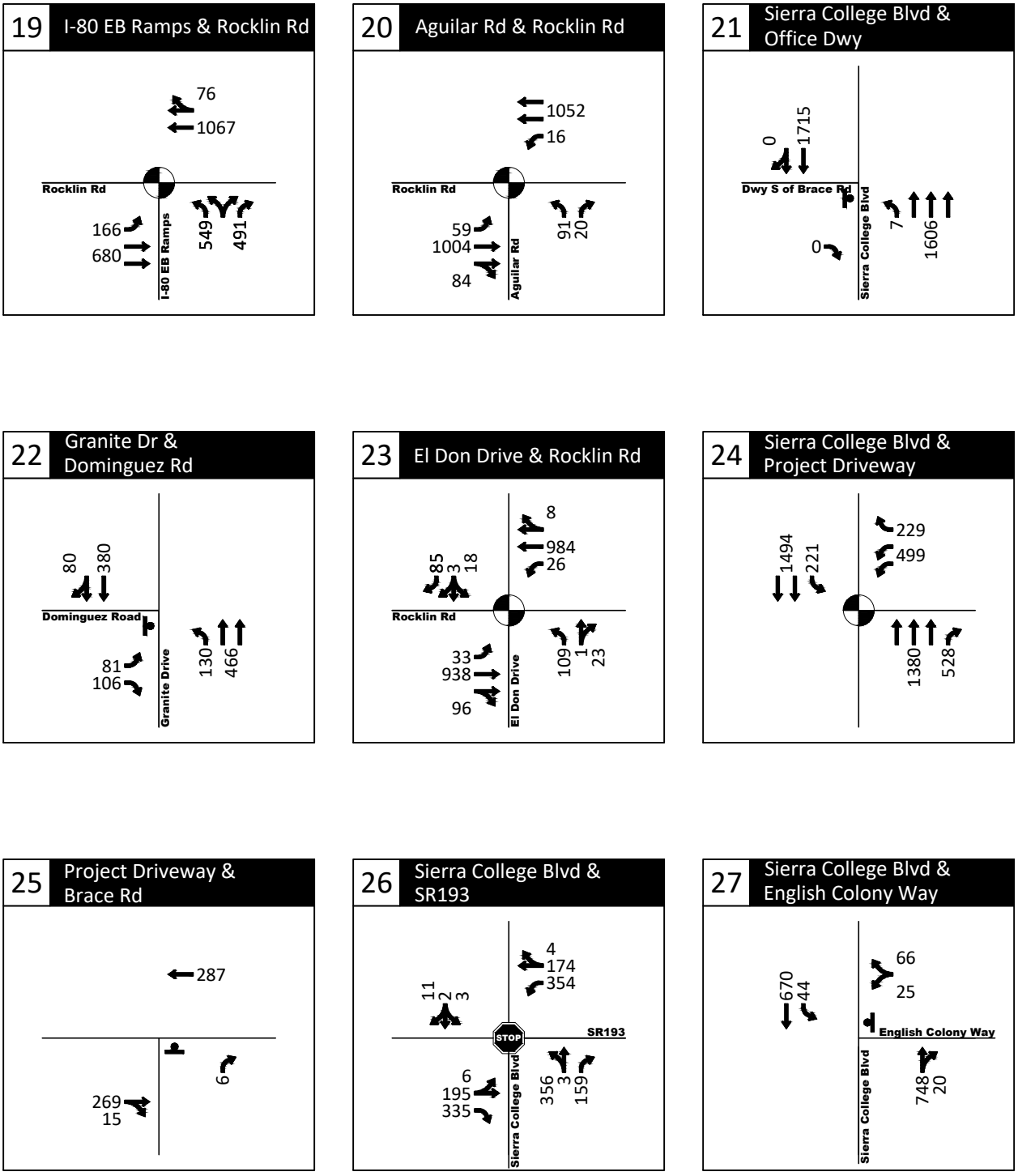
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
23B



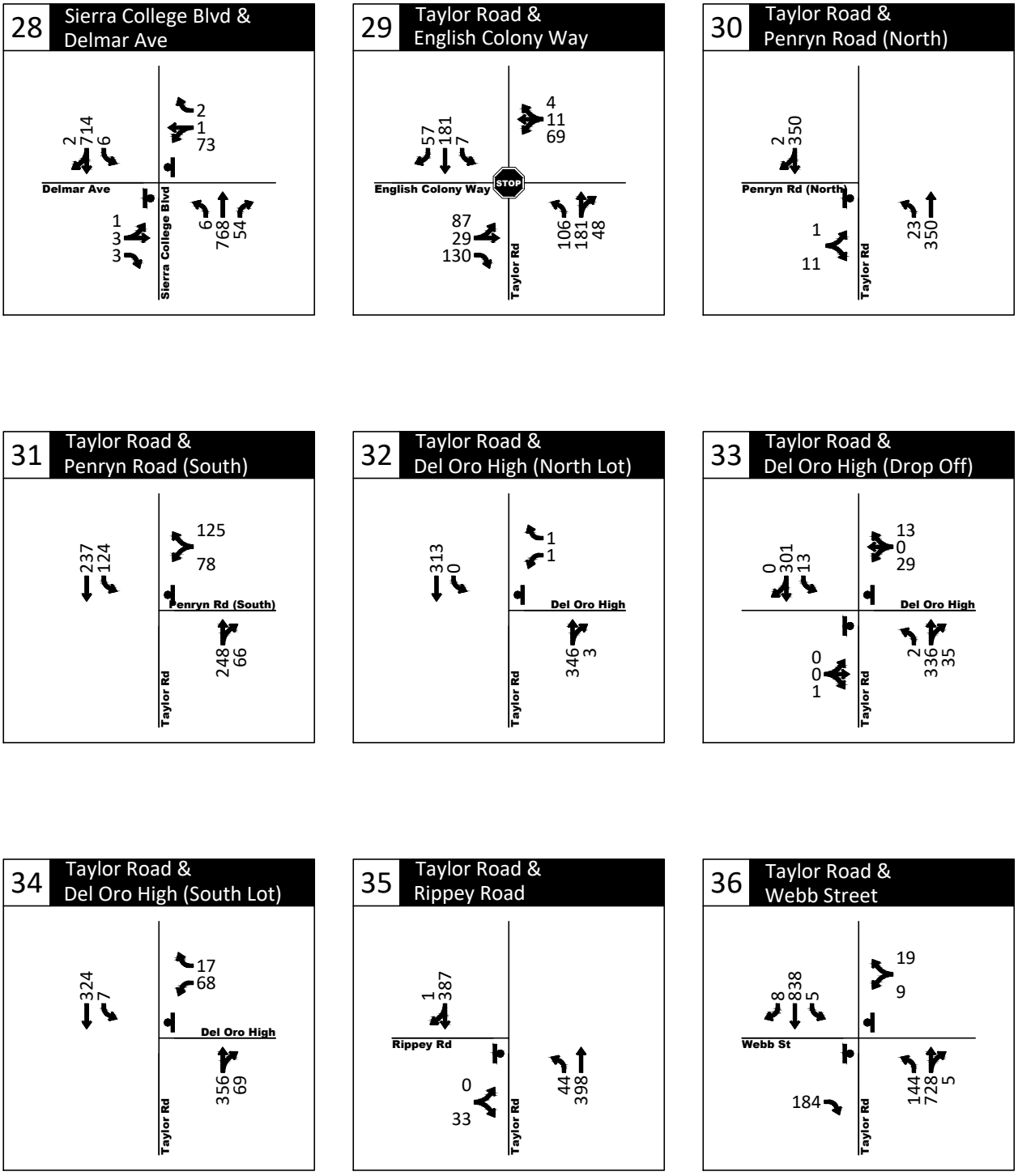
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Short Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
23C



- Weekend Midday Traffic Volume

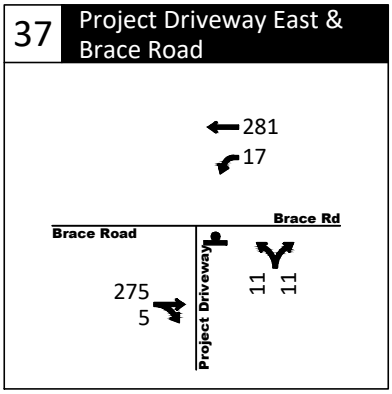
- Stop Sign

- Traffic Signal

Cumulative Short Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
23D

KITTELSON & ASSOCIATES



- Weekend Midday Traffic Volume
- Stop Sign
- Traffic Signal

Cumulative Short Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
23E

Project Driveway Options 1B & 1C

Project Driveway Options 1B and 1C would affect operations of study intersections 7, 8, 21, 24, 25, and 37 due to the driveway trip routing. All other study intersections would operate the same under Project Driveway Options 1B and 1C as they would under Project Driveway Option 1A. Alternative driveway configurations would affect operations at a limited number of study intersections. Table 36 shows the baseline Cumulative Short Term No-Project and Plus Project delays and LOS at those study intersections affected by the options during weekday AM and PM peak hours.

Table 37 shows the baseline Cumulative No-Project and Plus Project delays and LOS at those study intersections affected by the options during the weekend midday peak hour.

The following affected study area intersections would be significantly impacted by the proposed Project for Project Driveway Options 1B and 1C :

- Sierra College Boulevard & Granite Drive (PM and MD)

Table 36: Cumulative Short Term Plus Project - Intersection LOS Analysis, Weekday AM/PM Peak Hour – Project Driveway Options 1B & 1C

ID	Intersection	Traffic Control Type	Weekday AM					Weekday PM				
			Short Term		Plus Project		Change in Delay (sec)	Short Term		Plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS		Delay (sec)	LOS	Delay (sec)	LOS	
Driveway Option 1B												
7	Sierra College Blvd/Brace Rd	Signal	10.7	B	15.0	B	4.3	18.3	B	40.5	D	22.2
8	Sierra College Blvd/Granite Dr	Signal	**35.9**	**D**	**39.3**	**D**	3.4	**58.2**	**E**	**83.0**	**F**	24.8
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.2	A	0.2	A	0.0	17.6	C	18.3	C	0.7
24	Sierra College Blvd/Project Driveway	Signal	DNE		6.6	A	-	DNE		13.3	B	-
25	Brace Road/Project Driveway	TWSC	DNE		0.0	A	-	DNE		10.1	B	-
37	Brace Road/Project Driveway East	TWSC	DNE					DNE				
Driveway Option 1C												
7	Sierra College Blvd/Brace Rd	Signal	10.7	B	14.1	B	3.4	18.3	B	16.9	B	-1.4
8	Sierra College Blvd/Granite Dr	Signal	**35.9**	**D**	**39.3**	**D**	3.4	**58.2**	**E**	**83.0**	**F**	24.8
21	Sierra College Blvd/Dwy South of	TWSC	0.2	A	0.2	A	0.0	17.6	C	18.2	C	0.6
24	Sierra College Blvd/Project Driveway	Signal	DNE		6.6	A	-	DNE		13.1	B	-
25	Brace Road/Project Driveway	TWSC	DNE		0.0	A	-	DNE		10.1	B	-
37	Brace Road/Project Driveway East	TWSC	DNE		10.4	B	-	DNE		11.2	B	-

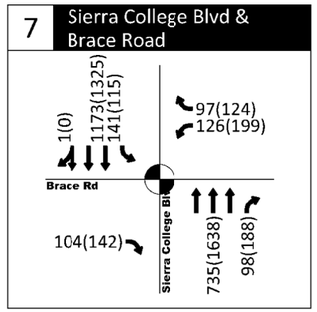
Notes:
AWSC: All-way stop control – The average intersection delay is reported.
TWSC: Two-way stop control - delay reported reflects the critical movement.
DNE: Intersection does not exist under no Project conditions.
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.
Shaded cell indicates significant Project impact
Source: Kittelson & Associates, Inc. 2019

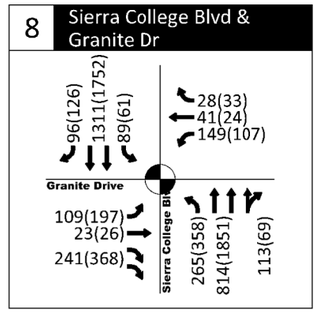
Table 37: Cumulative Short Term Plus Project - Intersection LOS Analysis, Weekend Midday Peak Hour – Project Driveway Options 1B & 1C

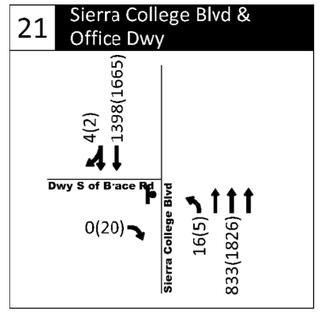
ID	Intersection	Traffic Control Type	Short Term		Plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS	
Driveway Option 1B							
7	Sierra College Blvd/Brace Rd	Signal	15.1	B	31.1	C	16
8	Sierra College Blvd/Granite Dr	Signal	**39.9**	**D**	**60.1**	**E**	20.2
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.1	A	0.1	A	0.0
24	Sierra College Boulevard/Project Driveway	Signal	DNE		16.4	B	-
25	Brace Road/Project Driveway	TWSC	DNE		10.0	B	-
37	Brace Road/Project Driveway East	TWSC	DNE				
Driveway Option 1C							
7	Sierra College Blvd/Brace Rd	Signal	15.1	B	17.4	B	2.3
8	Sierra College Blvd/Granite Dr	Signal	**39.9**	**D**	**60.1**	**E**	20.2
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.1	A	0.1	A	0.0
24	Sierra College Boulevard/Project Driveway	Signal	DNE		15.7	B	-
25	Brace Road/Project Driveway	TWSC	DNE		9.9	A	-
37	Brace Road/Project Driveway East	TWSC	DNE		11.1	B	-

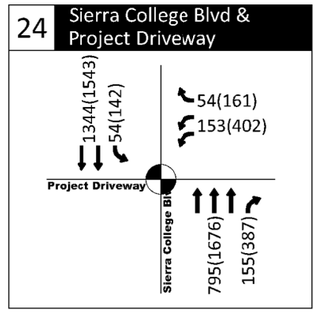
Notes:
AWSC: All-way stop control – The average intersection delay is reported.
TWSC: Two-way stop control - The delay reported reflects the critical movement.
DNE: Intersection does not exist under no Project conditions.
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.
Shaded cell indicates significant Project impact
Source: Kittelson & Associates, Inc. 2019

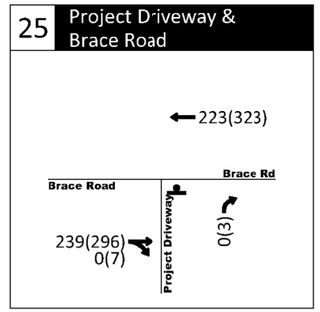
OPTION 1A

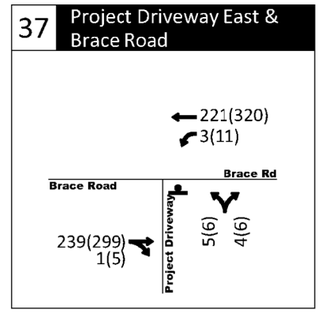




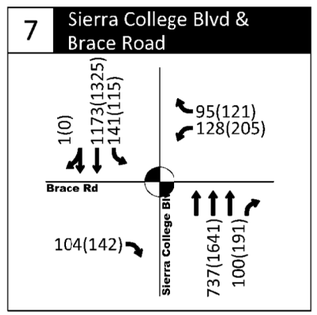


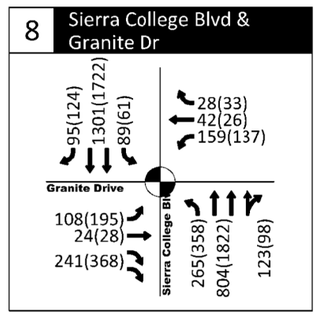


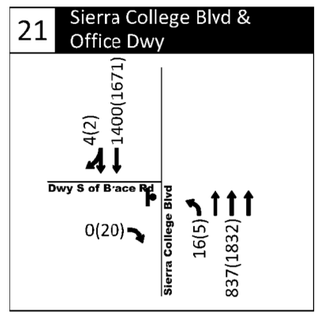


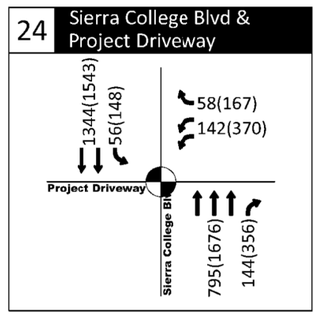


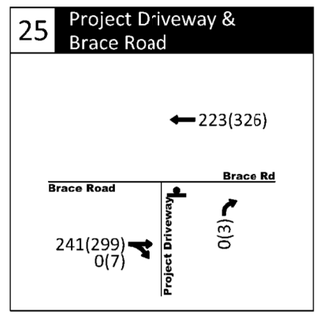
OPTION 1B

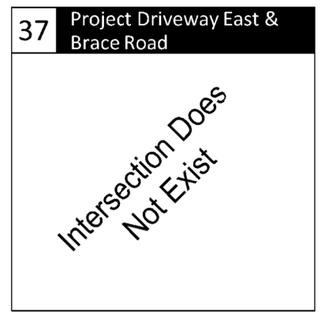




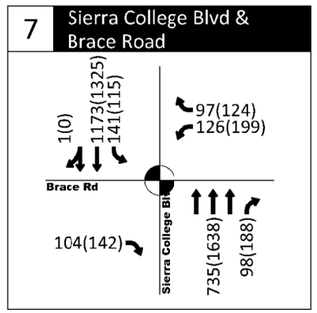


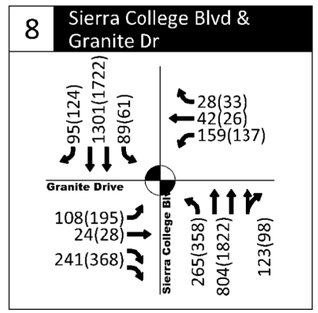


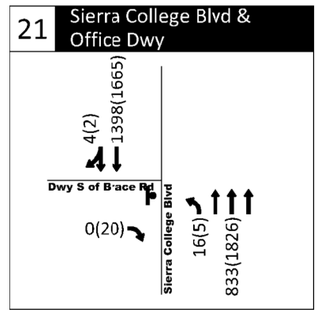


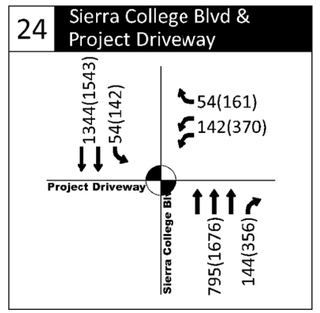


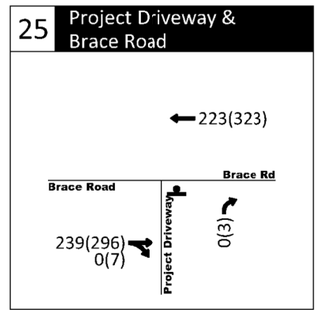
OPTION 1C

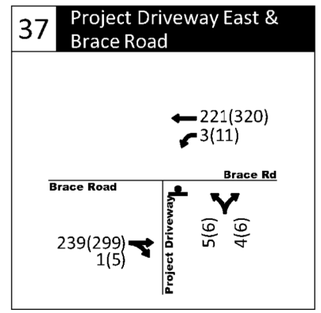












AM(PM) - Weekday Traffic Volume

- Stop Sign

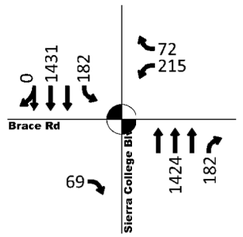
- Traffic Signal

Cumulative Short Term Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Options 1B & 1C
Loomis, California

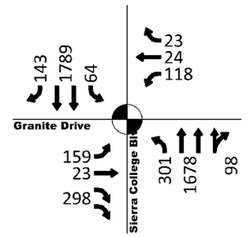
Figure
24

OPTION 1A

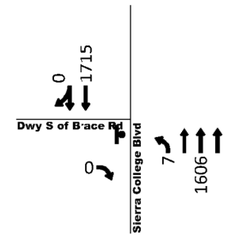
7 Sierra College Blvd & Brace Road



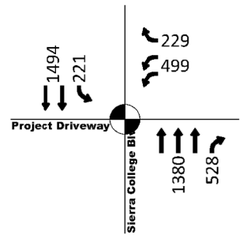
8 Sierra College Blvd & Granite Dr



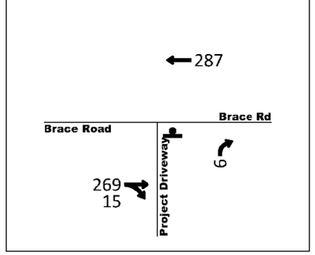
21 Sierra College Blvd & Office Dwy



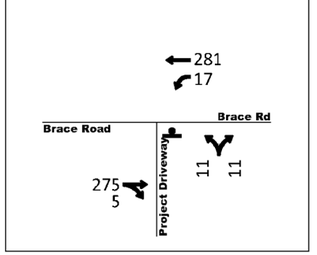
24 Sierra College Blvd & Project Driveway



25 Project Driveway & Brace Road

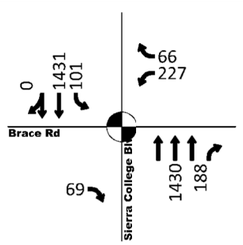


37 Project Driveway East & Brace Road

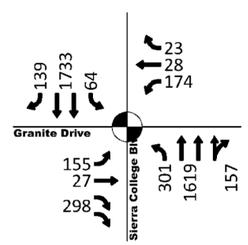


OPTION 1B

7 Sierra College Blvd & Brace Road

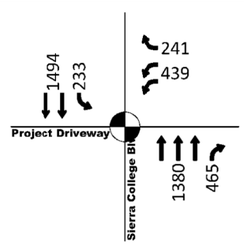


8 Sierra College Blvd & Granite Dr

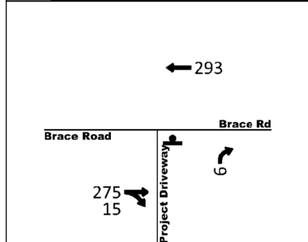


21 Sierra College Blvd & Office Dwy

24 Sierra College Blvd & Project Driveway



25 Project Driveway & Brace Road

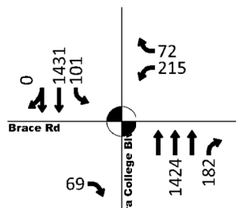


37 Project Driveway East & Brace Road

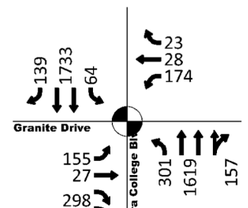
Intersection Does Not Exist

OPTION 1C

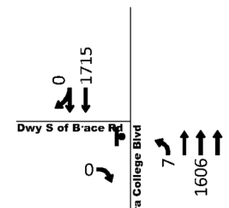
7 Sierra College Blvd & Brace Road



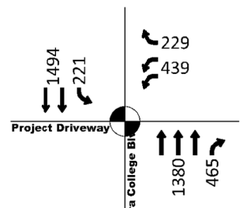
8 Sierra College Blvd & Granite Dr



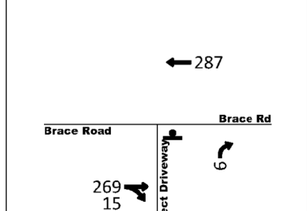
21 Sierra College Blvd & Office Dwy



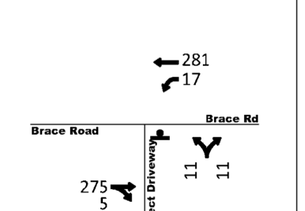
24 Sierra College Blvd & Project Driveway



25 Project Driveway & Brace Road



37 Project Driveway East & Brace Road



- Weekend Midday Traffic Volume

- Stop Sign
- Traffic Signal

Cumulative Short Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Options 1B & 1C
Loomis, California

Figure 25

KITTELSON & ASSOCIATES

8.1.2 Queuing Analysis

Appendix C provides the queue summary tables for the weekday AM, PM and weekend midday peak hours. Appendix "G" includes the Project contribution tables.

Project Driveway Option 1A

Forecast 95th percentile queues extend beyond the available storage lengths available for Project Driveway Option 1A at the following locations:

- Taylor Road & King Road (AM, PM, and MD)
- Taylor Road & Horseshoe Bar Road (AM, PM, and MD)
- Horseshoe Bar Road & I-80 Westbound Ramp (AM, PM, and MD)
- Sierra College Boulevard & Taylor Road (AM, PM, and MD)
- Sierra College Boulevard & Brace Road (PM and MD)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- Sierra College Boulevard & I-80 WB Ramps (AM, PM and MD)
- Sierra College Boulevard & I-80 EB Ramps (PM and MD)
- Sierra College Boulevard & Schriber Way (AM, PM, and MD)
- Sierra College Boulevard & Rocklin Road (AM, PM, and MD)
- Pacific Street & Rocklin Road (AM, PM, and MD)
- Granite Drive & Rocklin Road (AM, PM, and MD)
- I-80 Westbound Ramps & Rocklin Road (PM and MD)
- I-80 Eastbound Ramps & Rocklin Road (AM, PM, and MD)
- Aguilar Road & Rocklin Road (AM)
- El Don Drive & Rocklin Road (AM)
- Sierra College Boulevard & Project Driveway (MD)
- Sierra College Boulevard & SR-193 (MD)
- Taylor Road & English Colony Way (AM and MD)
- Taylor Road & Del Oro High School Drop Off (AM)
- Taylor Road & Del Oro High School South Lot (AM)

In addition, the queues reported at the above locations would affect operations at the upstream locations as shown:

- The northbound through at Sierra College Boulevard & Taylor Road would affect operations at Sierra College Boulevard & Brace Road (PM)
- The northbound left-turn at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (PM and MD)
- The northbound through at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (PM and MD)
- The southbound through at Sierra College Boulevard & I-80 WB Ramps would affect operations at Sierra College Boulevard & Granite Drive (AM, PM and MD)
- The southbound through at Sierra College Boulevard & Schriber Way would affect operations at Sierra College Boulevard & I-80 EB Ramps (AM, PM, and MD)
- The westbound left at I-80 Westbound Ramps & Rocklin Road would affect operations at I-80 Eastbound Ramps & Rocklin Road (PM)
- The westbound through at I-80 Eastbound Ramps & Rocklin Road would affect operations at Aguilar Road & Rocklin Road (AM and PM)
- The eastbound through at Aguilar Road & Rocklin Road would affect operations at I-80 Eastbound Ramps & Rocklin Road (AM)

Based on the intersection queuing significant impact criteria presented in Section 2 (Project traffic causes queue overflow or if queues overflows under no Project, the Project contributes 5% of the total traffic for the movement), an intersection queue significant impact occurs at the following intersections:

- Taylor Road & Horseshoe Bar Road (MD)
- Sierra College Boulevard & Taylor Road (PM and MD)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- Sierra College Boulevard & I-80 WB Ramps (AM, PM, and MD)
- Granite Drive & Rocklin Road (MD)
- Sierra College Boulevard & Project Driveway (MD)
- Sierra College Boulevard & SR-193 (MD)

Please note that the queues at some study intersections may be lower when compared to existing conditions due to signal timing optimization and/or recirculation of traffic due to the addition of approved/pending projects.

Project Driveway Options 1B & 1C

Project Driveway Options 1B and 1C would affect operations of study intersections 7, 8, 21, 24, 25, and 37 due to driveway trip routing. All other study intersections would operate the same under Project Driveway Options 1B and 1C as they would under Project Driveway Option 1A. One or more 95th percentile queues would extend beyond the available storage lengths at the following intersections (for those intersections affected by the driveway options):

- Sierra College Boulevard & Brace Road (PM and MD)[14]
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)

In addition, the queues reported at the above locations would affect operations at the upstream locations as shown:

- The northbound through at Sierra College Boulevard & Taylor Road would affect operations at Sierra College Boulevard & Brace Road (PM)
- The northbound left-turn at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (PM and MD)
- The northbound through at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (PM and MD)
- The southbound through at Sierra College Boulevard & I-80 WB Ramps would affect operations at Sierra College Boulevard & Granite Drive (AM, PM and MD)

Based on the intersection queuing significant impact criteria presented in Section 2 (Project traffic causes queue overflow or if queues overflows under no Project, the Project contributes 5% of the total traffic for the movement), an intersection queue significant impact occurs at the following affected study area intersections:

- Sierra College Boulevard & Brace Road (PM and MD)[14]
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)

[14] Weekday PM and Weekend Midday peak hour significantly impacted for Project Driveway Option 1B only.

8.2 PLACER COUNTY ROADWAY OPERATIONS

Analysis for the study segments was conducted using the LOS criteria defined as noted in Section 3.1. The three Project driveway options do not affect the Project traffic volumes for the roadway segments analyzed. Table 38 outlines the Cumulative Short Term with and without Project roadway volumes and associated level of service for the study segments and is applicable for all three Project driveway options. As shown, all study segments continue to satisfy the LOS C or better standard with the addition of Project trips regardless of the Project driveway option considered. Therefore, Project impacts would be less than significant.

Table 38: Cumulative Short Term plus Project Conditions – Placer County Weekday ADT Roadway Segment LOS Analysis

Roadway	Segment	Number of Lanes	Short Term		Short Term plus Project		
			ADT	LOS	Project ADT	ADT	LOS
Sierra College Boulevard (SCB)	SR-193 to English Colony Way	2	9,040	A	180	9,220	A
	English Colony Way to Delmar Ave	2	12,130	B	200	12,330	B
	Delmar Ave to Loomis Town Limits	2	12,130	B	220	12,350	B
SR-193	Lincoln City Limits to SCB	2	11,300	B	90	11,390	B
	SCB to Clark Tunnel Road	2	7,850	A	50	7,900	A

Notes:
ADT volumes sourced from Bickford Ranch Specific Plan EIR Addendum (October 2015) and adjusted based on City of Rocklin Travel Demand Model Growth Rates.
Source: Kittelson & Associates, Inc. 2019

8.3 FREEWAY FACILITIES EVALUATION

Cumulative Short Term Conditions traffic volumes for the weekday AM and PM peak hours were added to the site-generated traffic to arrive at the Short Term plus Project total traffic volumes.

8.3.1 Freeway Mainline Basic Segment Analysis

The three Project driveway options do not affect the Project traffic volumes for the freeway segments analyzed. Table 45 through Table 41 outline the Cumulative Short Term and Cumulative Short Term plus Project mainline volume, density and associated level of service for the study segments and are applicable for all three Project driveway options. As shown, all study segments operate at acceptable LOS D or better with Project traffic regardless of the Project driveway options considered. Therefore, no significant impacts occur to the freeway mainline under the Cumulative Short Term plus Project Conditions.

Appendix "E" includes the freeway mainline level-of-service worksheets.

Table 39: Cumulative Short Term – I-80 Mainline LOS Analysis, Weekday AM Peak Hour

ID	Segment	Direction	Short Term			Short Term plus Project			Change in Density
			Volume	Density	LOS	Volume	Density	LOS	
1	I-80 east of Sierra College	Eastbound	3,288	20.1	C	3,310	20.2	C	0.1
		Westbound	4,134	26.0	C	4,157	26.1	D	0.1
2	I-80 west of Sierra College	Eastbound	3,216	19.7	C	3,223	19.7	C	0.0
		Westbound	3,923	24.4	C	3,930	24.5	C	0.1

Notes:
Density: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

Table 40: Cumulative Short Term – I-80 Mainline LOS Analysis, Weekday PM Peak Hour

ID	Segment	Direction	Short Term			Short Term plus Project			Change in Density
			Volume	Density	LOS	Volume	Delay	LOS	
1	I-80 east of Sierra College	Eastbound	4,564	29.0	D	4,635	29.6	D	0.6
		Westbound	4,068	25.5	C	4,135	26.0	C	0.5
2	I-80 west of Sierra College	Eastbound	4,419	27.8	D	4,338	27.9	D	0.1
		Westbound	4,016	25.1	C	4,036	25.2	C	0.1

Notes:
Density: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

Table 41: Cumulative Short Term – I-80 Mainline LOS Analysis, Weekend MD Peak Hour

ID	Segment	Direction	Short Term			Short Term plus Project			Change in Density
			Volume	Density	LOS	Volume	Density	LOS	
1	I-80 east of Sierra College	Eastbound	4,187	23.8	C	4,317	24.6	C	0.8
		Westbound	4,243	23.6	C	4,380	24.4	C	0.8
2	I-80 west of Sierra College	Eastbound	4,392	25.1	C	4,431	25.3	C	0.2
		Westbound	4,198	23.3	C	4,236	23.5	C	0.2

Notes:
Density: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

8.3.2 Ramp Metering Supplemental Evaluation

The evalaution was prepared for informational purposes. The three Project driveway options do not affect the Project traffic volumes for the freeway ramps analyzed. Table 42 outlines the calculated freeway on-ramp queues under Cumulative Short Term and Cumulative Short Term plus Project conditions and is applicable for all three Project driveway options. As shown in Table 42, the calculated queues with the minimum metering rate are projected to be accommodated within the available 1,200-foot long storage area for all Project driveway options considered.

Appendix "I" includes the ramp metering worksheets.

Table 42: Cumulative Short Term Plus Project – I-80 Westbound Slip-Ramp Ramp Meter Analysis

Peak Hour	Short Term		Short Term plus Project	
	Meter Rate (vehicles/hour)	Calculated Queue (feet)	Meter Rate (vehicles/hour)	Calculated Queue (feet)
AM	240	11	240	55
PM	300	134	240	316
MD	300	0	300	86

Notes:
Boldface type indicates if queue exceeds available ramp storage capacity of 1,200 feet.
Source: Kittelson & Associates, Inc. 2019

8.4 PEDESTRIAN AND BICYCLE EVALUATION

The proposed Project would provide pedestrian facilities on-site linking with public facilities along the site frontages on Sierra College Boulevard and Brace Road to provide connectivity with existing facilities. Pedestrian crosswalks would be provided at proposed new signalized Costco site access intersection on Sierra College Boulevard. The project would reconstruct the Type II bicycle facility on Sierra College Boulevard northbound along the site frontage, including providing separate northbound right-turn lanes at the proposed signalized Project access and at Brace Road. In addition, the Project would provide bicycle parking on site for both members and employees.

Due to the nature of products and services provided by the Project, the Project would minimally increase pedestrian and bicycle traffic in the study area. Sidewalk connections would be provided along the Project site frontage with the proposed development along Sierra College Boulevard. The Project site would not be in conflict with applicable Town pedestrian and bicycle plans for any of the Project driveway options considered. The Project would have a less than significant impact on pedestrian and bicycle facilities.

8.5 TRANSIT EVALUATION

Due to the nature of products and services provided by the Project and limited transit connectivity provided adjacent to the site, the Project would minimally increase transit ridership in the study area. The nearest stop is approximately 0.6 mile from the Project site for routes with one hour and two hour headways. Due to the distance to the stop, relatively long headways, and employee shift times, it is unlikely that a significant number of employee trips would be added to the transit network. The project site would not be in conflict with applicable Placer County Transit plans or encroach on any lines or stops. The Project would have a less than significant impact on transit services and a new transit stop is not warranted at the Project site.

Project impacts on traffic flow could affect travel time for transit vehicles. Traffic flow impacts are addressed in the intersection evaluation sections of this study for all Project driveway options considered.

Section 9
Cumulative Conditions – Long Term

9.0 CUMULATIVE CONDITIONS – LONG TERM BASELINE

The Cumulative Long Term baseline traffic conditions analysis forecasts how the study area's transportation system would operate with the traffic generated by overall background and development growth in the area.

Cumulative Long Term conditions were based on a modified model using the City of Rocklin 2030 Travel Demand Model as a base. Both the Town and City models were reviewed and both models were incomplete in accounting for projects and improvements in either jurisdiction. With consultation with Town and City staff, the City's model was selected and modified as needed to account for anticipated development within the Town, City, and County. The model is developed and maintained by the City of Rocklin and is used to predict the impact of travel growth and to evaluate potential transportation improvements. The model was updated to account for approved/pending projects not included in the model as well as missing roadways and roadway improvements in the Town of Loomis. The model volumes were post-processed using standard industry procedures in order to obtain intersection and link-level traffic volumes used in this analysis.

Existing lane configurations were assumed for future conditions unless a funded project was identified for future baseline conditions. The following roadway improvements were assumed under Cumulative Long Term conditions:

- Sierra College Boulevard: widened to 5-6 lanes from Taylor Road to south of Rocklin Road (includes assumed southbound frontage improvements along the currently vacant commercial property west of Sierra College Boulevard between Granite Drive and Brace Road and only 2 northbound lanes between Granite Drive and Brace Road)
- Sierra College Boulevard & Highway 193 intersection signalization
- Sierra College Boulevard & English Colony Way intersection signalization
- Sierra College Boulevard & Delmar Avenue intersection signalization
- Taylor Road & Penryn Road intersection signalization
- Taylor Road & English Colony Way intersection signalization
- Pacific Street: widened to 4 lanes from Town of Loomis boundary line to Delmar Avenue/Dominguez Road
- Rocklin Road: widened to 6 lanes from east of Granite Drive (not improved at Granite Drive) to west of Sierra College Boulevard; widened to 4 lanes east of Sierra College Boulevard
- Dominguez Road extension from Granite Drive to Sierra College Boulevard: 2 lanes provided (including signalization of the Granite Drive & Dominguez Road intersection)

Based on discussions with the Town, the forecast year of 2035 was identified for the Cumulative Long Term condition which is consistent with the Town's General Plan Circulation Element. Therefore, growth

from the modified City of Rocklin 2030 model was forecast to year 2035 conditions. Link volumes for the calibration year of 2011 were compared with the analysis year of 2035 to obtain the growth factors for each intersection and freeway segment. The existing volumes for each facility were then multiplied by the growth factors to arrive at the future baseline condition volumes.

Future intersection post-processing procedures are predicated on existing counts and link volumes from the model. The baseline year for the model was 2011 and the future forecast year was 2030. Link volumes were interpolated using a straight-line growth between 2011 and 2030 to determine link volumes for the analysis year 2035. The Ratio Method was the primary forecasting methodology[15]. The resultant AM and PM peak-hour growth factors were applied to respective base year peak-hour traffic volumes to produce future turning movement volumes for analysis. In the situations where the resultant future-to-base-year ratio exceeds 2.0, the Difference Method[16] was applied. The difference between the base year and forecast year were added to the existing link volumes.

The future analysis year intersection turning movement volumes were developed following the post processing procedure (iterative method) documented in the National Cooperative Highway Research Program (NCHRP) Report 765: Highway Traffic Data for Urbanized Area Project Planning and Design (the most recent update of NCHRP Report 255). The post processed turning movements were rounded to the nearest five, recognizing the resultant data points are not field measured. Further adjustments were made to intersection locations where the baseline volumes may not have shown data and/or if a transportation analysis zone was not coded at specific intersections in the City of Rocklin 2030 model. For example, an approved development will provide the west approach at the Sierra College Boulevard and Schriber Way intersection that is not accounted for in the 2030 model. For this location, traffic volume data from the development traffic impact study was added to the intersection model volumes.

The City of Rocklin 2030 model does not forecast weekend conditions. Lacking weekend model data, weekend midday peak hour volumes were instead developed considering the relationship in growth between weekday AM and PM peak hour conditions. A comparison of ADT, AM and PM model growth projected on major corridors in the study area showed relatively consistent growth patterns. The PM peak hour growth was higher than AM peak hour and so was conservatively used as a basis to project weekend midday peak hour conditions. The base year and future year model data for each intersection approach was adjusted by the corresponding ratio of weekend midday volume to weekday PM volume. The data was post-processed using weekend midday turning movement volumes per the methodology described above. Final adjustments were made at intersections where model predicted negative growth occurred in projecting turning movement volumes.

[15] The Ratio Method computes the ratio of the base year and future year link volumes in the model to calculate separate growth factors for the entering and exiting volumes for each study intersection approach.

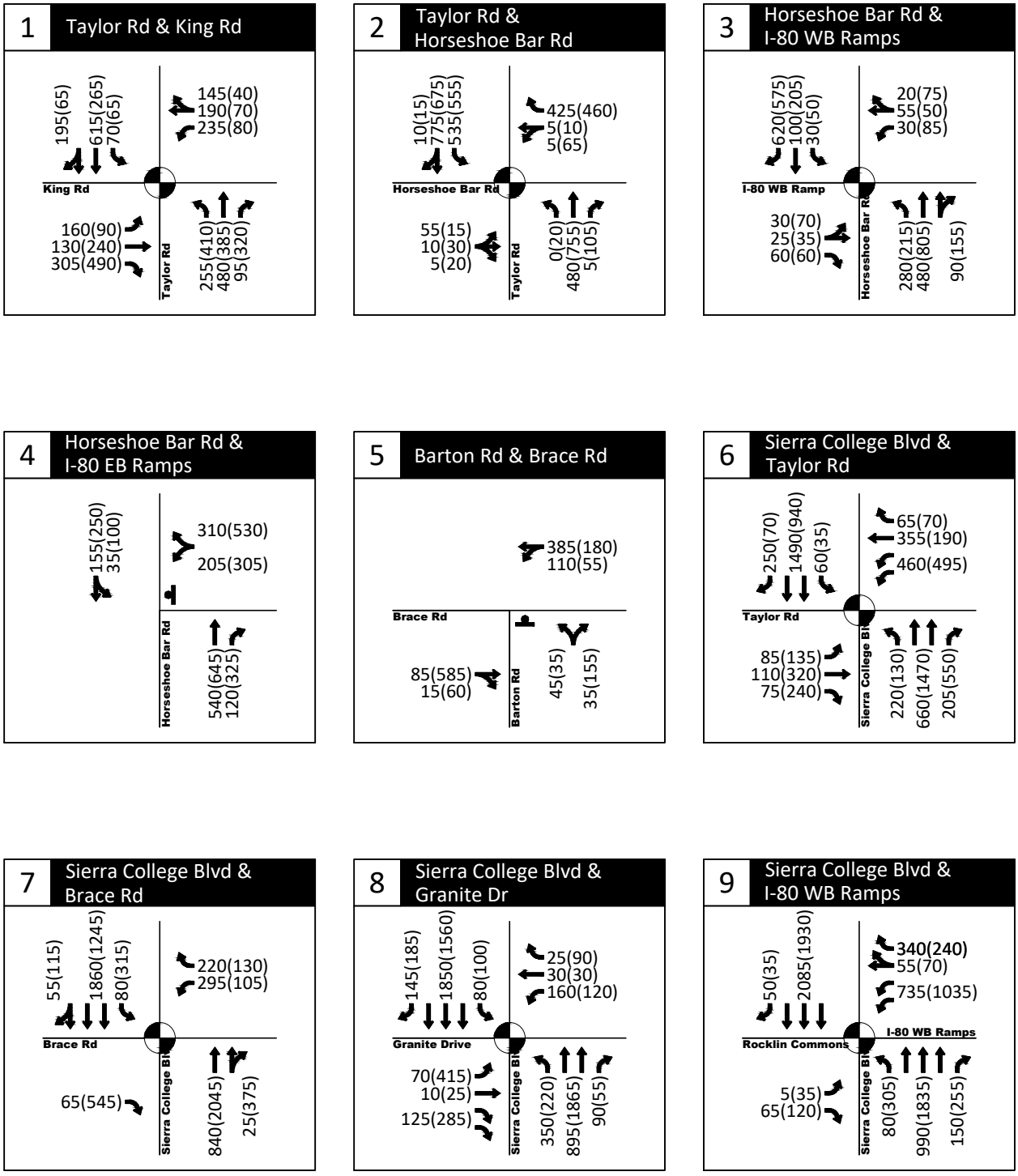
[16] The difference method adds (or subtracts) the difference between the base year traffic count and base year modeled volume to the forecasted model volume.

9.1 INTERSECTION EVALUATION

Cumulative Long Term Baseline conditions were assessed using the projected weekday AM and PM as well as weekend midday peak hour volumes. Given the growth from existing conditions, the traffic signal timing at the study intersections was optimized for the Cumulative Long Term Baseline conditions. Figure 26 shows the Cumulative Long Term Baseline traffic volumes during the weekday AM and PM peak hours while Figure 27 shows the Cumulative Long Term Baseline traffic volumes during the weekend midday peak hour. Please note that these volumes are based on the model outputs and may be lower for some movements when compared to existing or cumulative short term conditions. Overall intersection volumes for future conditions are higher as compared to existing or cumulative short term conditions.

The following intersection improvement was assumed in conjunction with the individual approved development projects:

- Sierra College Boulevard & Schriber Way intersection signalized and western approach added by approved development project.



AM(PM) - Weekday Traffic Volume

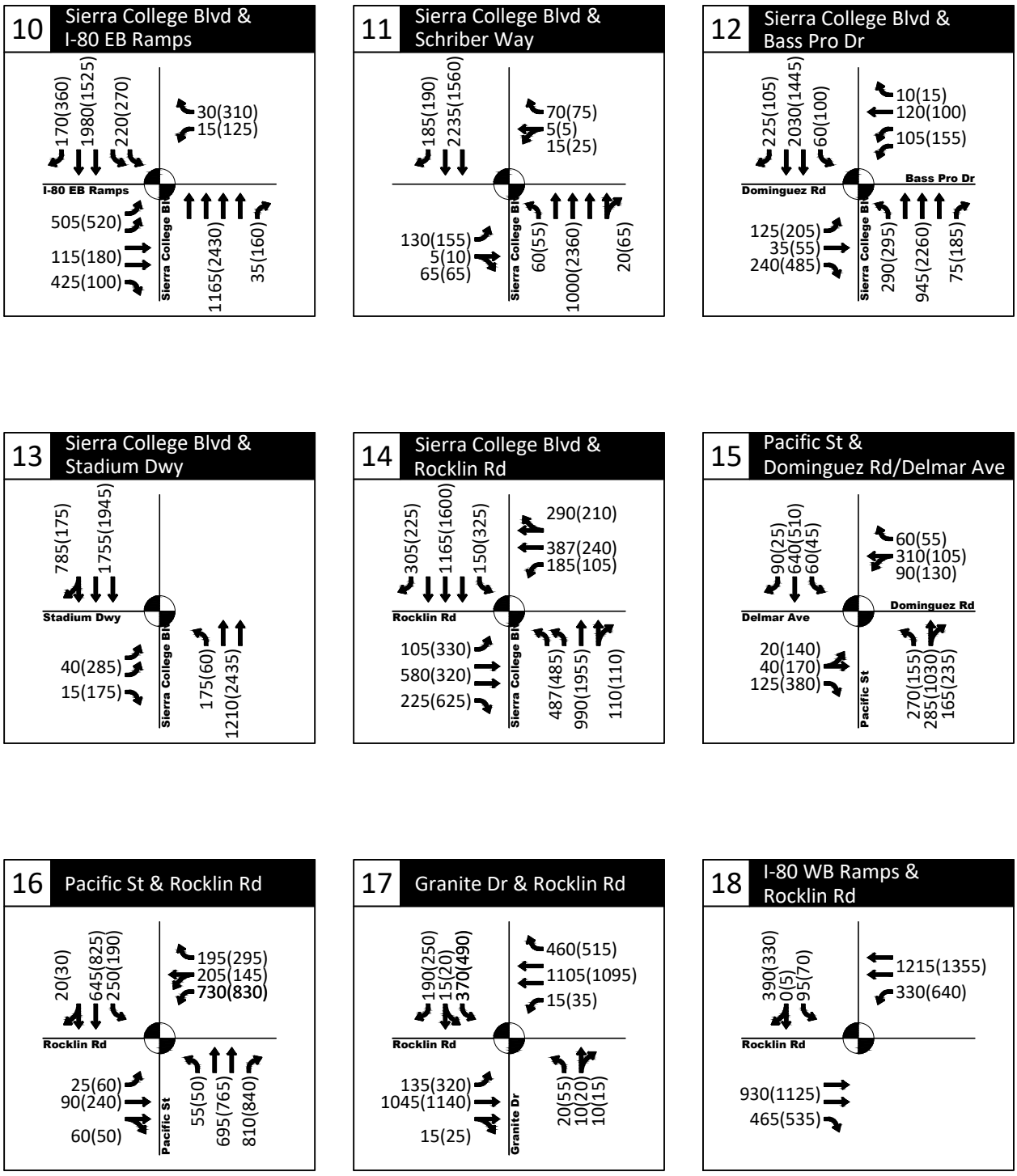
- Stop Sign

- Traffic Signal

Cumulative Long Term Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
26A

KITTELSON & ASSOCIATES



AM(PM) - Weekday Traffic Volume

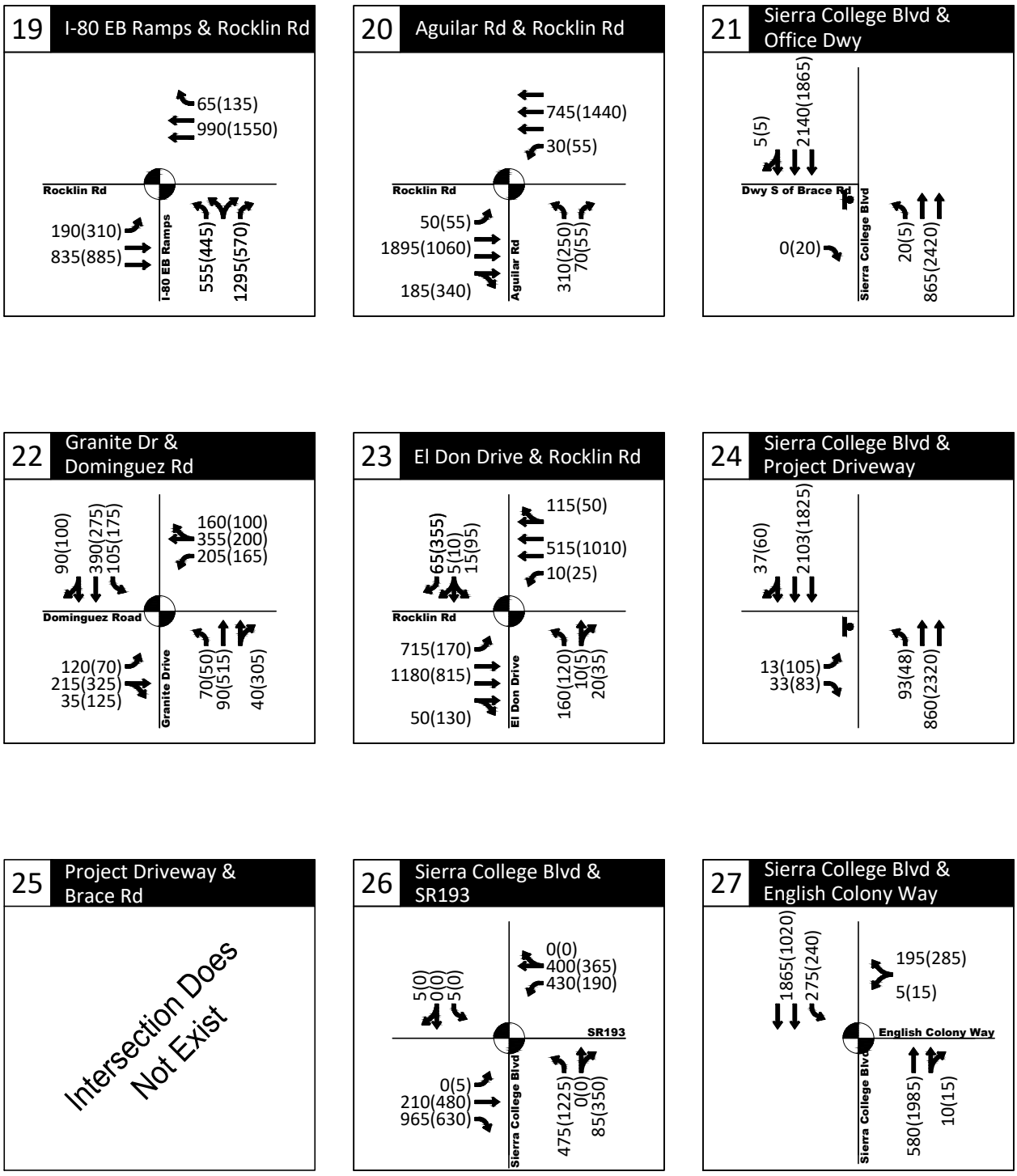
- Stop Sign

- Traffic Signal

Cumulative Long Term Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
26B

KITTELSON & ASSOCIATES



AM(PM) - Weekday Traffic Volume

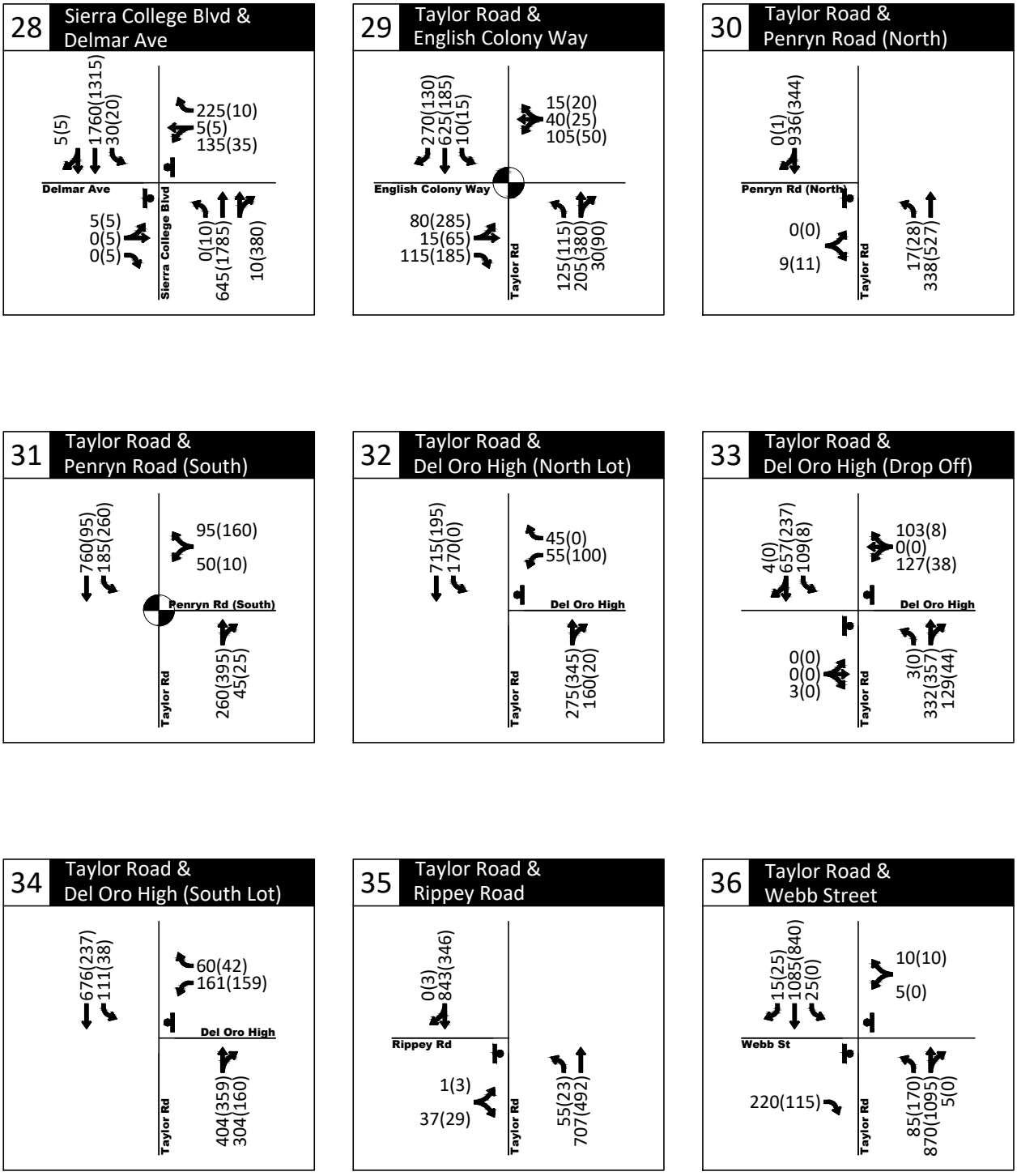
- Stop Sign

- Traffic Signal

Cumulative Long Term Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
26C

KITTELSON & ASSOCIATES



AM(PM) - Weekday Traffic Volume

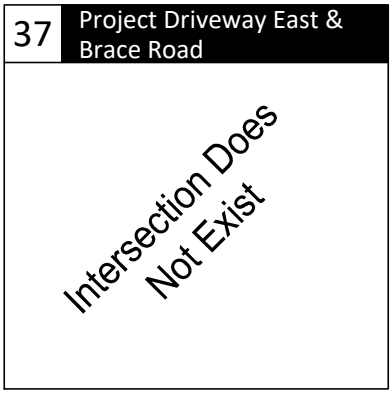
- Stop Sign

- Traffic Signal

Cumulative Long Term Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
26D

KITTELSON & ASSOCIATES



AM(PM) - Weekday Traffic Volume

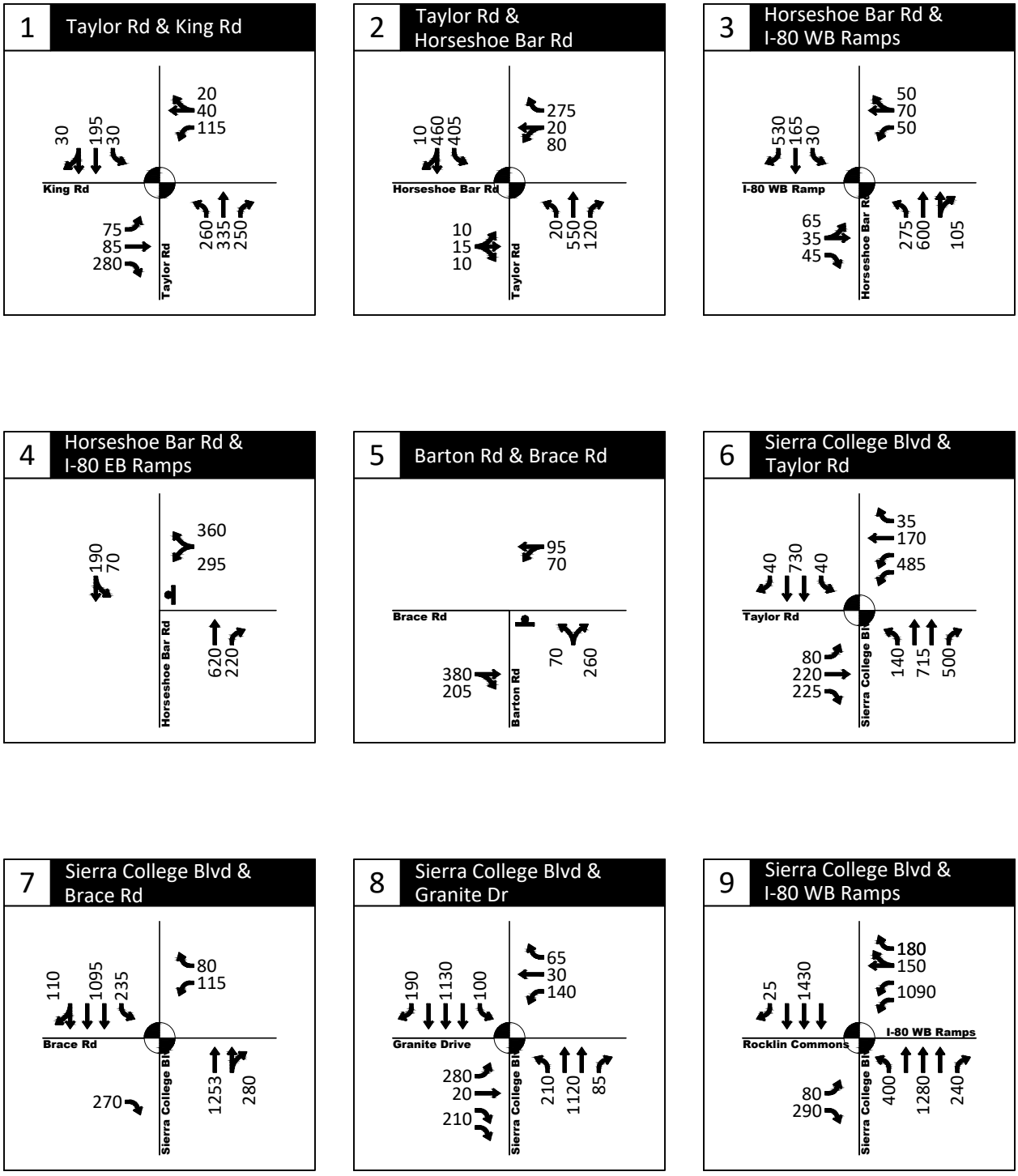
- Stop Sign

- Traffic Signal

Cumulative Long Term Traffic Conditions
Weekday AM and PM Peak Hours
Loomis, California

Figure
26E

KITTELSON & ASSOCIATES



- Weekend Midday Traffic Volume

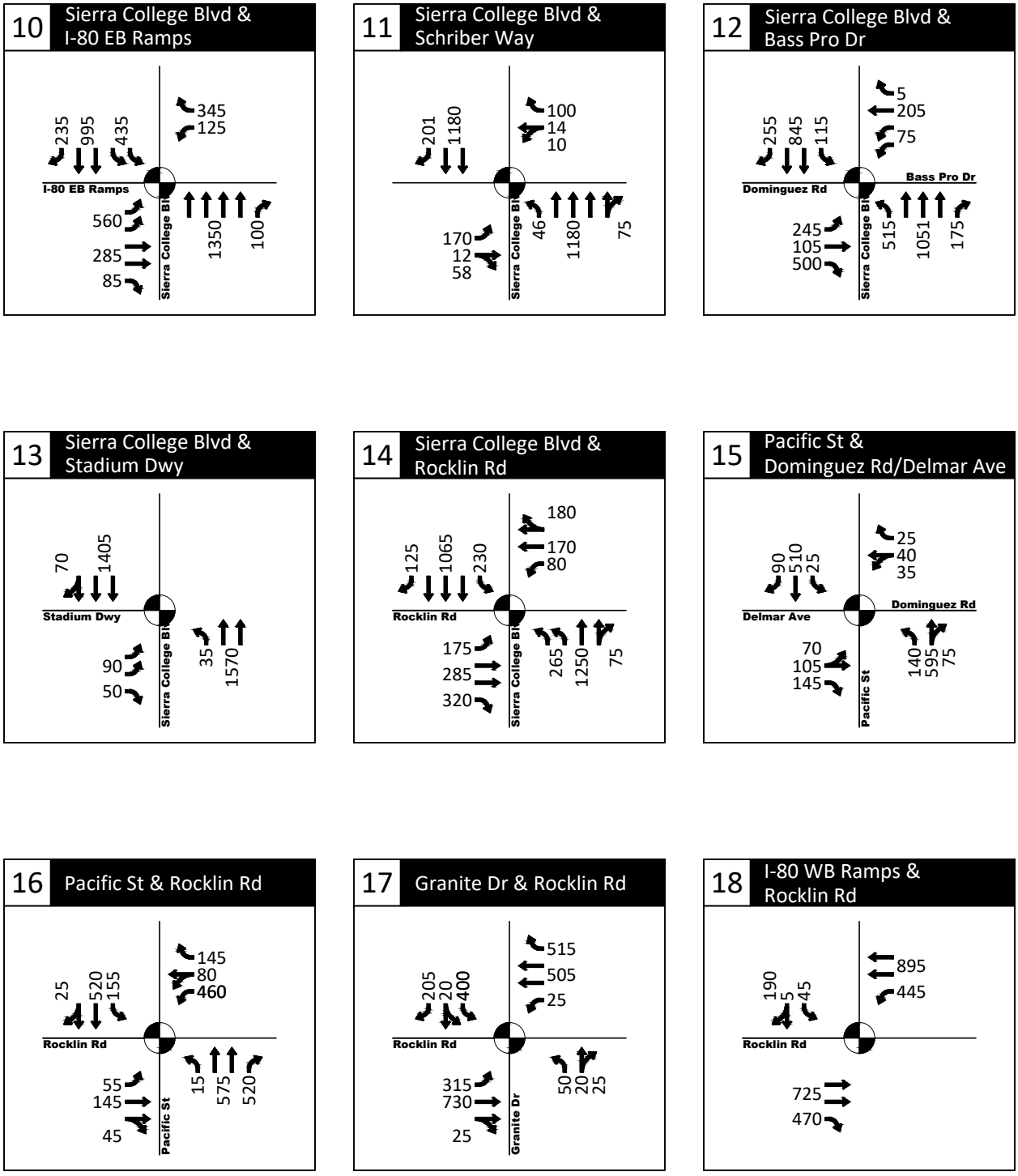
- Stop Sign

- Traffic Signal

Cumulative Long Term Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
27A

KITTELSON & ASSOCIATES



- Weekend Midday Traffic Volume

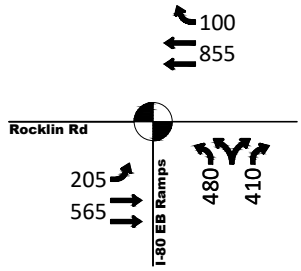
- Stop Sign

- Traffic Signal

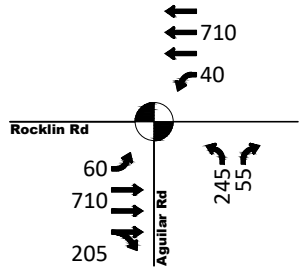
Cumulative Long Term Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
27B

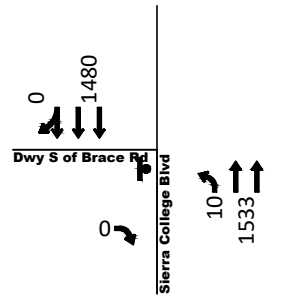
19 I-80 EB Ramps & Rocklin Rd



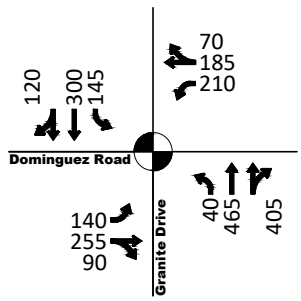
20 Aguilar Rd & Rocklin Rd



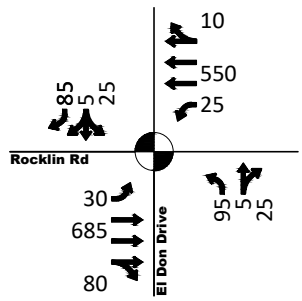
21 Sierra College Blvd & Office Dwy



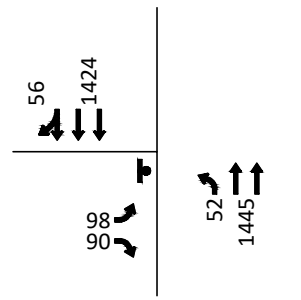
22 Granite Dr & Dominguez Rd



23 El Don Drive & Rocklin Rd



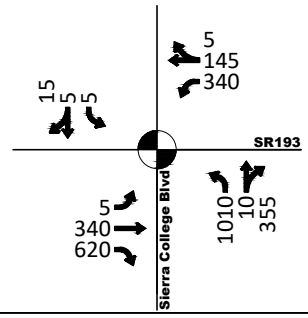
24 Sierra College Blvd & Project Driveway



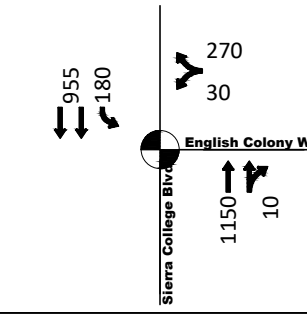
25 Project Driveway & Brace Rd

Intersection Does Not Exist

26 Sierra College Blvd & SR193



27 Sierra College Blvd & English Colony Way

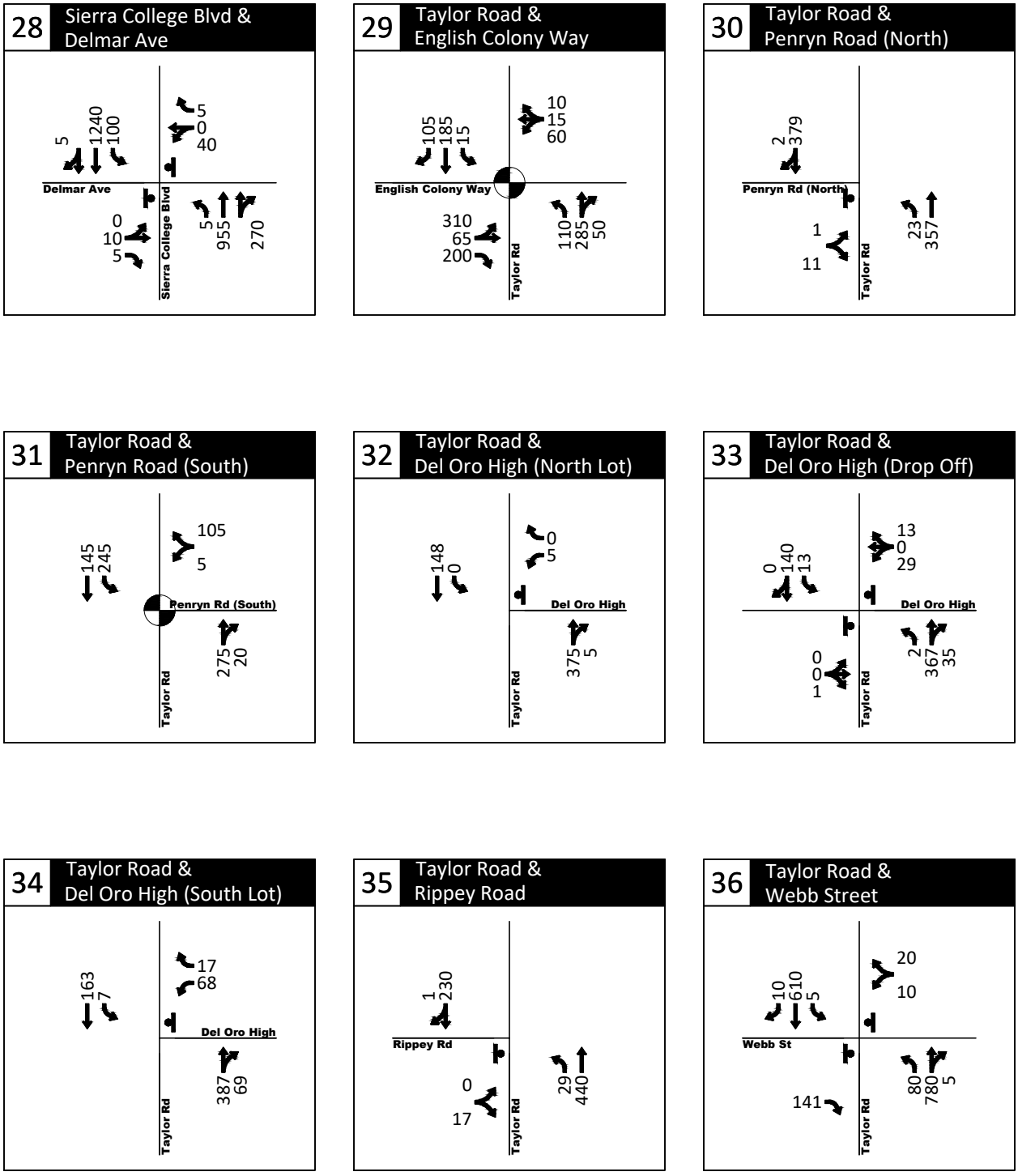


- Weekend Midday Traffic Volume
- Stop Sign
- Traffic Signal

Cumulative Long Term Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
27C

KITTELSON & ASSOCIATES



- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Long Term Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
27D

- Weekend Midday Traffic Volume
- Stop Sign
- Traffic Signal

Cumulative Long Term Traffic Conditions
Weekend Midday Peak Hour
Loomis, California

Figure
27E

9.1.1 Level-of-Service Analysis

Table 43 summarizes the LOS analysis for the study intersections under Cumulative Long Term Baseline conditions. As shown, the following intersections operate at unacceptable LOS:

- Taylor Road & King Road (AM and PM)
- Horseshoe Bar Road & I-80 Eastbound Ramp (AM, PM, and MD)
- Barton Road & Brace Road (MD)
- Sierra College Boulevard & Taylor Road (AM and PM)
- Sierra College Boulevard & Brace Road (PM)
- Sierra College Boulevard & Granite Drive (AM and PM)
- Sierra College Boulevard & Schriber Way (AM)
- Sierra College Boulevard & Bass Pro Drive/Dominguez Road (AM, PM, and MD)
- Sierra College Boulevard & Rocklin Road (AM, PM and MD)
- Pacific Street & Dominguez Road/Delmar Avenue (AM, PM, and MD)
- Pacific Street & Rocklin Road (AM, PM, and MD)
- Granite Drive & Rocklin Road (AM, PM, and MD)
- I-80 Westbound Ramps & Rocklin Road (PM)
- I-80 Eastbound Ramps & Rocklin Road (AM)
- Granite Drive & Dominguez Road (AM, PM, and MD)
- El Don Drive & Rocklin Road (PM)
- Sierra College Boulevard & Project Driveway (not yet serving Project site development but assuming commercial development on the west side of Sierra College Boulevard) (AM, PM, and MD)
- Sierra College Boulevard & SR-193 (PM and MD)
- Sierra College Boulevard & English Colony Way (PM)
- Taylor Road & English Colony Way (AM and MD)
- Taylor Road & Del Oro High School North Lot (AM)
- Taylor Road & Del Oro High School Drop Off (AM and MD)
- Taylor Road & Del Oro High School South Lot (AM)
- Taylor Road & Rippey Road (AM)
- Taylor Road & Webb Street (AM and MD)

Appendix “B” includes the level-of-service worksheets.

Table 43: Cumulative Long Term Baseline Conditions - Intersection LOS Analysis, Weekday AM/PM and Weekend Midday Peak Hours

ID	Intersection	Traffic Control Type	Weekday AM		Weekday PM		Weekend MD	
			Delay	LOS	Delay	LOS	Delay	LOS
1	Taylor Rd/King Rd	Signal	**85.8**	**F**	**72.8**	**E**	29.5	C
2	Taylor Rd/Horseshoe Bar Rd	Signal	28.7	C	45.4	D	24.7	C
3	Horseshoe Bar Rd/I-80 Westbound Ramp	Signal	13.1	B	15.5	B	14.6	B
4	Horseshoe Bar Rd/I-80 Eastbound Ramp	TWSC	**213.9**	**F**	**978.6**	**F**	**621.0**	**F**
5	Barton Rd/Brace Rd	TWSC	15.8	C	23.6	C	**43.1**	**E**
6	Sierra College Blvd/Taylor Rd	Signal	**67.3**	**E**	**51.9**	**D**	33.2	C
7	Sierra College Blvd/Brace Rd	Signal	12.9	B	**137.4**	**F**	20.3	C
8	Sierra College Blvd/Granite Dr	Signal	**36.4**	**D**	**68.5**	**E**	28.3	C
9	Sierra College Blvd/I-80 WB Ramps	Signal	37.1	D	46.1	D	42.2	D
10	Sierra College Blvd/I-80 EB Ramps	Signal	39.7	D	48.6	D	36.4	D
11	Sierra College Blvd/Schriber Way	Signal	**37.6**	**D**	16.1	B	16.0	B
12	Sierra College Blvd/Bass Pro Dr-Dominguez Rd	Signal	**122.3**	**F**	**102.4**	**F**	**74.0**	**E**
13	Sierra College Blvd/Stadium Dwy	Signal	26.7	C	19.3	B	7.4	A
14	Sierra College Blvd/Rocklin Rd	Signal	**66.1**	**E**	**172.8**	**F**	**50.9**	**D**
15	Pacific St/Dominguez Rd-Delmar Ave	Signal	**444.3**	**F**	**755.8**	**F**	**56.4**	**E**
16	Pacific St/Rocklin Rd	Signal	**129.7**	**F**	**104.9**	**F**	**35.3**	**D**
17	Granite Dr/Rocklin Rd	Signal	**37.1**	**D**	**43.9**	**D**	**35.3**	**D**
18	I-80 Westbound Ramps/Rocklin Rd	Signal	36.3	D	**57.7**	**E**	23.2	C
19	I-80 Eastbound Ramps/Rocklin Rd	Signal	**66.3**	**E**	45.8	D	18.8	B
20	Aguilar Rd/Rocklin Rd	Signal	19.5	B	13.8	B	11.1	B
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	1.2	A	23.5	C	0.1	A
22	Granite Dr/Dominguez Rd	Signal	**36.7**	**D**	**54.4**	**D**	**73.9**	**E**
23	El Don Dr/Rocklin Rd	Signal	33.2	C	**59.6**	**E**	12.6	B
24	Sierra College Boulevard/Project Driveway	TWSC	**ERR**[1]	**F**	**6299.3**	**F**	**898.5**	**F**
26	Sierra College Blvd/SR-193	Signal	46.6	D	**133.1**	**F**	**186.1**	**F**
27	Sierra College Blvd/English Colony Way	Signal	15.8	B	**57.5**	**E**	18.9	B
28	Sierra College Blvd/Delmar Avenue	Signal	14.5	B	8.0	A	3.3	A
29	Taylor Rd/English Colony Way	Signal	**40.7**	**D**	30.1	C	**48.8**	**D**
30	Taylor Rd/Penryn Road (North)	TWSC	23.3	C	10.6	B	11.3	B
31	Taylor Rd/Penryn Road (South)	Signal	19.1	B	22.6	C	17.1	B
32	Taylor Rd/Del Oro High School North Lot	TWSC	**765.0**	**F**	14.7	B	20.7	C

ID	Intersection	Traffic Control Type	Weekday AM		Weekday PM		Weekend MD	
			Delay	LOS	Delay	LOS	Delay	LOS
33	Taylor Rd/Del Oro High School Drop-Off	TWSC	**1584.5**	**F**	15.8	C	**29.5**	**D**
34	Taylor Rd/Del Oro High School South Lot	TWSC	**187.1**	**F**	17.3	C	20.8	C
35	Taylor Rd/Rippey Road	TWSC	**25.9**	**D**	11.2	B	11.2	B
36	Taylor Rd/Webb Street	TWSC	**4103.8**	**F**	21.0	C	**435.6**	**F**

Notes:

AWSC: All-way stop control – The average intersection delay is reported.
TWSC: Two-way stop control - The delay reported reflects the critical movement.
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards. Source: Kittelson & Associates, Inc. 2019

9.1.2 Queuing Analysis

Appendix C provides the queue summary tables for the weekday AM, PM and weekend midday peak hours. Forecast 95th percentile queues are projected to extend beyond the available storage lengths at the following intersections:

- Taylor Road & King Road (AM, PM, and MD)
- Taylor Road & Horseshoe Bar Road (AM, PM, and MD)
- Horseshoe Bar Road & I-80 Westbound Ramp (AM, PM, and MD)
- Horseshoe Bar Road & I-80 Eastbound Ramp (PM and MD)
- Sierra College Boulevard & Taylor Road (AM, PM, and MD)
- Sierra College Boulevard & Brace Road (AM, PM, and MD)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- Sierra College Boulevard & I-80 WB Ramps (AM, PM, and MD)
- Sierra College Boulevard & I-80 EB Ramps (AM, PM, and MD)
- Sierra College Boulevard & Schriber Way (AM, PM, and MD)
- Sierra College Boulevard & Bass Pro Drive/Dominguez Road (AM, PM, and MD)
- Sierra College Boulevard & Stadium Dwy (AM and PM)
- Sierra College Boulevard & Rocklin Road (AM, PM, and MD)
- Pacific Street & Dominguez Road/Delmar Avenue (AM and PM)
- Pacific Street & Rocklin Road (AM, PM, and MD)
- Granite Drive & Rocklin Road (AM, PM, and MD)
- I-80 Westbound Ramps & Rocklin Road (AM, PM, and MD)
- I-80 Eastbound Ramps & Rocklin Road (AM and PM)
- Aguilar Road & Rocklin Road (AM)

- Granite Drive & Dominguez Road (AM, PM, and MD)
- El Don Drive & Rocklin Road (AM)
- Sierra College Boulevard & Project Driveway (AM, PM, and MD)
- Sierra College Boulevard & SR-193 (AM, PM, and MD)
- Sierra College Boulevard & English Colony Way (AM, PM, and MD)
- Taylor Road & English Colony Way (AM, PM, and MD)
- Taylor Road & Penryn Road (south) (AM, PM, and MD)
- Taylor Road & Del Oro High School North Lot (AM)
- Taylor Road & Del Oro High School Drop Off (AM)
- Taylor Road & Del Oro High School South Lot (AM)

In addition, the queues reported at the above locations would affect operations at the upstream locations as shown:

- The westbound through at Horseshoe Bar Road & I-80 Eastbound Ramp would back up to the I-80 Eastbound mainline (PM and MD)
- The northbound through at Sierra College Boulevard & Taylor Road would affect operations at Sierra College Boulevard & Brace Road (PM)
- The southbound left-turn at Sierra College Boulevard & Brace Road would affect operations at Sierra College Boulevard & Taylor Road (PM)
- The northbound left-turn at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (AM)
- The northbound through at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (PM)
- The southbound through at Sierra College Boulevard & I-80 Westbound Ramps would affect operations at Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- The southbound through at Sierra College Boulevard & Schriber Way would affect operations at Sierra College Boulevard & I-80 EB Ramps (AM and PM)
- The southbound through at Sierra College Boulevard & Bass Pro Drive/Dominguez Road would affect operations at Sierra College Boulevard & Schriber Way (AM and PM)
- The westbound left-turn at I-80 Westbound Ramps & Rocklin Road would affect operations at I-80 Eastbound Ramps & Rocklin Road (PM)
- The westbound through at I-80 Eastbound Ramps & Rocklin Road would affect operations at Aguilar Road & Rocklin Road (PM)

9.1.3 Supplemental Simulation Evaluation

The Cumulative Long Term Conditions simulation evaluation was conducted with the same assumptions as outlined in Section 4.0 for Existing Conditions and is provided for informational purposes only. The total network performance results of the simulation runs are presented in Table 44 and the arterial performance results are presented in Table 45.

As shown, under Cumulative Long Term Conditions the network is projected to experience congestion that contributes to increased delays as well as an increased number of vehicles being denied entry into the network.

For the Sierra College Boulevard corridor, delay and travel time increase by almost double those under Existing Conditions. In addition, the average arterial speed drops below 16 miles per hour.

Table 44: Cumulative Long Term Conditions – Simulation Total Network Performance Results

Peak Hour	Total Delay/Vehicle (s)	Vehicles Entered	Vehicles Exited	Vehicles Denied Entry
AM	173.9	9,765	9,377	1,099
PM	198.6	11,954	11,718	2,258
MD	106.2	11,316	11,208	625

Notes:
(s): seconds
Total Delay/Vehicle: Total delay is equal to the travel time minus the travel time for a vehicle with no other vehicles or control devices. This delay is divided by the number of vehicles to obtain the total delay per vehicle.

Vehicles Entered/Exited: Represents the number of vehicles counted entering and exiting the link or area during the interval. This value does not include vehicles moving from one intersection to the next with the arterial or network.

Vehicles Denied Entry: This value represents the number of vehicles unable to enter a link due to congestion and are waiting to enter. These vehicles can either be from an external link or from a mid-block source.

Source: Kittelson & Associates, Inc. 2019

Table 45: Cumulative Long Term Conditions – Simulation Sierra College Boulevard Arterial Performance Results

Segment	Peak Hour	Direction	Delay (s)	Travel Time (s)	Arterial Speed (mph)
Sierra College Boulevard between Taylor Road and Stadium Way	AM	Northbound	291.2	417.2	13
		Southbound	468.0	1,361.8	11
	PM	Northbound	471.5	1,611.8	9
		Southbound	419.7	776.8	11
	MD	Northbound	246.4	662.3	15
		Southbound	273.9	447.5	16

Notes:
Total Delay: Total Delay for the average vehicle traveling the length of the corridor including stopped delay and congestion delay.

Total Travel Time: Time in seconds for the average vehicle to travel the length of the corridor.

Average Arterial Speed: Average speed of the average vehicle traveling the length of the corridor.

Source: Kittelson & Associates, Inc. 2019

The detailed network and arterial performance output sheets are presented in Appendix "D".

9.2 PLACER COUNTY ROADWAY OPERATIONS

Analysis for the study segments was conducted using the LOS criteria defined as noted in Section 3.1. Table 46 outlines the Cumulative Long Term roadway volume and associated level of service for the study segments. As shown, with baseline volume increases the study segments satisfy the LOS C or better standard with the exception of Sierra College Boulevard between English Colony Way to the Loomis Town Limits.

Table 46: Cumulative Long Term Conditions – Placer County Weekday ADT Roadway Segment LOS Analysis

Roadway	Segment	Number of Lanes	ADT	LOS
Sierra College Boulevard (SCB)	SR-193 to English Colony Way	4	20,150	A
	English Colony Way to Delmar Ave	4	31,360	D
	Delmar Ave to Loomis Town Limits	4	29,920	D
SR-193	Lincoln City Limits to SCB	4	26,530	C
	SCB to Clark Tunnel Road	2	11,880	B

Notes:
ADT volumes sourced from Bickford Ranch Specific Plan EIR Addendum (October 2015) and adjusted based on City of Rocklin Travel Demand Model Growth Rates.
Source: Kittelson & Associates, Inc. 2019

9.3 FREEWAY FACILITIES EVALUATION

Freeway mainline future forecast volumes were calculated following the same intersection data projection methodology.

9.3.1 Freeway Mainline Basic Segment Analysis

Table 47 outlines the Cumulative Long Term mainline volume, density and associated level of service for the study segments. As shown, operations of two study segments exceed acceptable LOS D:

- I-80 east of Sierra College Boulevard – Westbound (PM)
- I-80 west of Sierra College Boulevard – Westbound (PM)

Appendix "E" includes the freeway mainline level-of-service worksheets.

Table 47: Cumulative Long Term Baseline Conditions – I-80 Mainline LOS Analysis, Weekday AM/PM Peak Hours

ID	Segment	Direction	Weekday AM			Weekday PM			Weekend MD		
			Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS
1	I-80 east of Sierra College Boulevard	Eastbound	4,780	30.9	D	5,060	30.9	D	5,340	324	D
		Westbound	4,700	30.7	D	5,440	35.8	E	5,030	28.9	D
2	I-80 west of Sierra College Boulevard	Eastbound	5,000	33.0	D	4,440	26.1	D	5,350	32.5	D
		Westbound	4,290	27.1	D	5,550	37.1	E	5,050	29.0	D

Notes:
Density: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

9.3.2 Ramp Metering Supplemental Evaluation

The evalaution was prepared for informational purposes. Table 48 shows that the calculated queues with the assumed minimum metering rate generate can be accommodated within the 1,200 feet of available storage area.

Appendix "I" includes the ramp metering worksheets.

Table 48: Cumulative Long Term Baseline Conditions – I-80 Westbound Slip-Ramp Ramp Meter Analysis

Peak Hour	Meter Rate (vehicles/hour)	Calculated Queue (feet)
AM	240	0
PM	450	473
MD	450	134

Notes:
Boldface type indicates if queue exceeds available ramp storage capacity of 1,200 feet.
Source: Kittelson & Associates, Inc. 2019

9.4 PEDESTRIAN AND BICYCLE EVALUATION

No pedestrian or bicycle facility improvements were programmed under Cumulative Long Term Conditions.

9.5 TRANSIT EVALUATION

No transit service improvements were programmed under Cumulative Long Term Conditions. The impact of approved in-process and other non-Project future development on traffic flow could affect travel time for transit vehicles. Traffic flow effects due to approved in-process and other non-Project future development are addressed in the intersection evaluation sections of this study.

Section 10 Cumulative Conditions – Long Term plus Project

10.0 CUMULATIVE CONDITIONS – LONG TERM PLUS PROJECT

The Cumulative Long Term plus Project traffic conditions analysis forecasts how the study area's transportation system would operate with the traffic generated by the proposed Costco warehouse development.

10.1 INTERSECTION EVALUATION

Cumulative Long Term Baseline Conditions traffic volumes for the weekday AM and PM as well as weekend midday peak hours were added to the site-generated traffic to arrive at the Cumulative Long Term plus Project volumes.

Figure 28 shows the Cumulative Long Term plus Project (Project Driveway Option 1A) traffic condition during the weekday AM and PM peak hours and Figure 29 shows the Cumulative Long Term plus Project (Project Driveway Option 1A) traffic condition during the weekend midday peak hour. Project Driveway Options 1B and 1C would affect Cumulative Short Term plus Project traffic volumes at study intersections 7, 8, 21, 24, 25, and 37 due to the driveway routing. All other study intersections would have the same Cumulative Short Term plus Project traffic volumes under Project Driveway Options 1B and 1C as they would under Project Driveway Option 1A. For Project Driveway Option 1A, Figure 30 shows the Cumulative Long Term plus Project traffic condition during the weekday AM and PM peak hours for all three Project driveway options at those study intersections affected by the options. Figure 31 shows the Cumulative Long Term plus Project Alternative traffic condition during the weekend midday peak hour for all three Project driveway options at those study intersections affected by the options.

10.1.1 Level-of-Service Analysis

To gauge the impact of the Project traffic on the baseline roadway network, the Project analysis assumed that study intersection signal timings would be unchanged from those under no Project conditions except at study locations where the Project provides roadway improvements (specifically, Sierra College Boulevard & Granite Drive as well as Sierra College Boulevard & Brace Road).

Project Driveway Option 1A

Table 49 shows the baseline Cumulative Long Term No-Project and Plus Project (Project Driveway Option 1A) delays and LOS for the study intersections during weekday AM and PM peak hours. Table 50 shows the baseline Cumulative Long Term No-Project and Plus Project (Project Driveway Option 1A) delays and LOS for the study intersections during weekend midday peak hour.

As shown in the tables below, the following intersections would operate at unacceptable LOS:

- Taylor Road & King Road (AM and PM)
- Horseshoe Bar Road & I-80 Eastbound Ramp (AM, PM, and MD)
- Barton Road & Brace Road (MD)
- Sierra College Boulevard & Taylor Road (AM, PM, and MD)
- Sierra College Boulevard & Brace Road (PM)
- Sierra College Boulevard & Granite Drive (AM and PM)
- Sierra College Boulevard & Schriber Way (AM)
- Sierra College Boulevard & Bass Pro Drive/Dominguez Road (AM, PM, and MD)
- Sierra College Boulevard & Rocklin Road (AM, PM and MD)
- Pacific Street & Dominguez Road/Delmar Avenue (AM, PM, and MD)
- Pacific Street & Rocklin Road (AM, PM, and MD)
- Granite Drive & Rocklin Road (AM, PM, and MD)
- I-80 Westbound Ramps & Rocklin Road (PM)
- I-80 Eastbound Ramps & Rocklin Road (AM)
- Granite Drive & Dominguez Road (AM, PM, and MD)
- El Don Drive & Rocklin Road (PM)
- Sierra College Boulevard & SR-193 (PM and MD)
- Sierra College Boulevard & English Colony Way (PM)
- Taylor Road & English Colony Way (AM and MD)
- Taylor Road & Del Oro High School North Lot (AM)
- Taylor Road & Del Oro High School Drop Off (AM and MD)
- Taylor Road & Del Oro High School South Lot (AM)
- Taylor Road & Rippey Road (AM)
- Taylor Road & Webb Street (AM and MD)

Based on the impact criteria defined earlier, the following intersections would be significantly impacted by the proposed Project:

- Sierra College Boulevard & Taylor Road (MD)
- Sierra College Boulevard & Granite Drive (PM)
- Sierra College Boulevard & Bass Pro Drive/Dominguez Road (MD)
- Sierra College Boulevard & SR-193 (MD)
- Taylor Road & Webb Street (MD)

Appendix “B” includes the level-of-service worksheets.

Table 49: Cumulative Conditions – Long Term Traffic Conditions, Weekday AM and PM Peak – Project Driveway Option 1A

ID	Intersection	Traffic Control Type	Weekday AM				Change in Delay (sec)	Weekday PM				Change in Delay (sec)
			Long Term		LT Plus Project			Long Term		LT Plus Project		
			Delay (Sec)	LOS	Delay (Sec)	LOS		Delay (Sec)	LOS	Delay (Sec)	LOS	
1	Taylor Rd/King Rd	Signal	**85.8**	**F**	**86.6**	**F**	0.8	**72.8**	**E**	**75.6**	**E**	2.8
2	Taylor Rd/Horseshoe Bar Rd	Signal	28.7	C	29.4	C	0.7	45.4	D	47.7	D	2.3
3	Horseshoe Bar Rd/ I-80 Westbound Ramp	Signal	13.1	B	13.1	B	0.0	15.5	B	15.5	B	0.0
4	Horseshoe Bar Rd/ I-80 Eastbound Ramp[1]	TWSC	**213.9**	**F**	**213.9**	**F**	0.0	**978.6**	**F**	**978.6**	**F**	0.0
5	Barton Rd/Brace Rd	TWSC	15.8	C	16.0	C	0.2	23.6	C	24.4	C	0.8
6	Sierra College Blvd/Taylor Rd	Signal	**67.3**	**E**	**69.0**	**E**	1.7	**51.9**	**D**	**55.9**	**E**	4.0
7	Sierra College Blvd/Brace Rd	Signal	12.9	B	17.1	B	4.2	**137.4**	**F**	**76.5**	**F**	-60.9
8	Sierra College Blvd/Granite Dr	Signal	**36.4**	**D**	**37.6**	**D**	1.2	**68.5**	**E**	**118.0**	**F**	49.5
9	Sierra College Blvd/ I-80 WB Ramps	Signal	37.1	D	37.4	D	0.3	46.1	D	70.0	E	23.9
10	Sierra College Blvd/ I-80 EB Ramps	Signal	39.7	D	47.5	D	7.8	48.6	D	52.0	D	3.4
11	Sierra College Blvd/ Schriber Way	Signal	**37.6**	**D**	**38.6**	**D**	1.0	16.1	B	16.2	B	0.1
12	Sierra College Blvd/ Bass Pro Dr-Dominguez Rd	Signal	**122.3**	**F**	**123.4**	**F**	1.1	**102.4**	**F**	**106.9**	**F**	4.5
13	Sierra College Blvd/ Stadium Dwy	Signal	26.7	C	27.1	C	0.4	19.3	B	20.5	C	1.2
14	Sierra College Blvd/Rocklin Rd	Signal	**66.1**	**E**	**66.7**	**E**	0.6	**172.8**	**F**	**175.7**	**F**	2.9
15	Pacific St/ Dominguez Rd-Delmar Ave	Signal	**444.3**	**F**	**445.7**	**F**	1.4	**755.8**	**F**	**751.2**	**F**	-4.6
16	Pacific St/Rocklin Rd	Signal	**129.7**	**F**	**129.9**	**F**	0.2	**104.9**	**F**	**105.9**	**F**	1.0
17	Granite Dr/Rocklin Rd	Signal	**37.1**	**D**	**37.7**	**D**	0.6	**43.9**	**D**	**45.7**	**D**	1.8
18	I-80 WB Ramps/Rocklin Rd	Signal	36.3	D	36.3	D	0.0	**57.7**	**E**	**57.7**	**E**	0.0
19	I-80 Eastbound Ramps/Rocklin Rd	Signal	**66.3**	**E**	**66.3**	**E**	0.0	45.8	D	45.8	D	0.0
20	Aguilar Rd/Rocklin Rd	Signal	19.5	B	19.6	B	0.1	13.8	B	13.8	B	0.0
21	Sierra College Blvd/ Dwy South of Brace Rd	TWSC	1.2	A	1.2	A	0.0	23.5	C	24.5	C	1.1
22	Granite Dr/Dominguez Rd	Signal	**36.7**	**D**	**36.7**	**D**	0.0	**54.4**	**D**	**55.3**	**E**	0.9
23	El Don Dr/Rocklin Rd	Signal	33.2	C	33.3	C	0.1	**59.6**	**E**	**59.6**	**E**	0.0
24	Sierra College Boulevard/ Project Driveway	Signal	**ERR[3]**	**F**	17.7	B	-	**6299.3**	**F**	31.7	C	-6197.6
25	Brace Road/Project Driveway	TWSC	DNE		0.0	A	-	DNE		13.9	B	-

ID	Intersection	Traffic Control Type	Weekday AM				Change in Delay (sec)	Weekday PM				Change in Delay (sec)
			Long Term		LT Plus Project			Long Term		LT Plus Project		
			Delay (Sec)	LOS	Delay (Sec)	LOS		Delay (Sec)	LOS	Delay (Sec)	LOS	
26	Sierra College Blvd/SR-193	Signal	46.6	D	47.1	D	0.5	**133.1**	**F**	**135.5**	**F**	2.4
27	Sierra College Blvd/ English Colony Way	Signal	15.8	B	16.0	B	0.2	**57.5**	**E**	**59.0**	**E**	1.5
28	Sierra College Blvd/ Delmar Avenue	Signal	14.5	B	14.6	B	0.1	8.0	A	8.6	A	0.6
29	Taylor Rd/English Colony Way	Signal	**40.7**	**D**	**41.1**	**D**	0.4	30.1	C	30.2	C	0.1
30	Taylor Rd/Penryn Road (North)	TWSC	23.3	C	23.4	C	0.1	10.6	B	10.7	B	0.1
31	Taylor Rd/Penryn Road (South)	Signal	19.1	B	19.2	B	0.1	22.6	C	22.8	C	0.2
32	Taylor Rd/ Del Oro High School North Lot[1]	TWSC	**765.0**	**F**	**765.0**	**F**	0.0	14.7	B	15.0	C	0.3
33	Taylor Rd/ Del Oro High School Drop-Off[1]	TWSC	**1584.5**	**F**	**1610.3**	**F**	25.8	15.8	C	16.1	C	0.3
34	Taylor Rd/ Del Oro High School South Lot[1]	TWSC	**187.1**	**F**	**187.2**	**F**	0.1	17.3	C	17.6	C	0.3
35	Taylor Rd/ Rippey Road	TWSC	**25.9**	**D**	**26.2**	**D**	0.3	11.2	B	11.3	B	0.1
36	Taylor Rd/ Webb Street	TWSC	**4103.8**	**F**	**4103.8**	**F**	0.0	21.0	C	21.9	C	0.9
37	Brace Road/Project Driveway East	TWSC	DNE		10.9	B	-	DNE		14.6	B	-

Notes:
AWSC: All-way stop control – The average intersection delay is reported.
TWSC: Two-way stop control - The delay reported reflects the critical movement.
DNE: Intersection does not exist.
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.

Shaded cell indicate significant Project impact

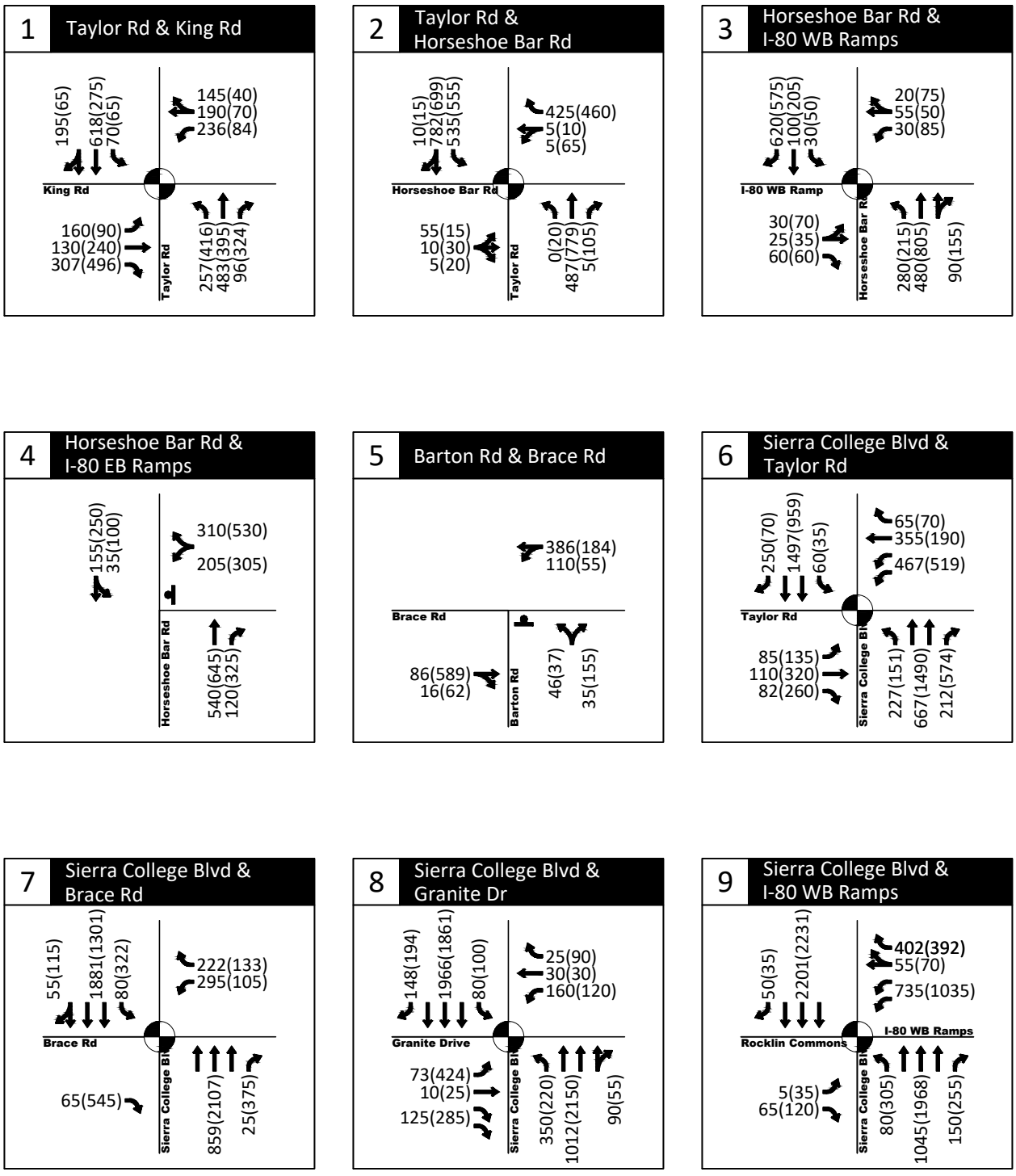
[1] An impact is significant in situations when the intersection is already operating at unacceptable LOS and the Project adds trips to the intersection exceeding 5% of the total traffic already at the intersection. At these locations, the project does not contribute 5% or more of the volumes.
Source: Kittelson & Associates, Inc. 2019

Table 50: Cumulative Conditions – Long Term Traffic Condition, Weekend Midday Peak – Project Driveway Option 1A

ID	Intersection	Traffic Control Type	Long Term		Long Term plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS	
1	Taylor Rd/King Rd	Signal	29.5	C	32.9	C	3.4
2	Taylor Rd/Horseshoe Bar Rd	Signal	24.7	C	27.2	C	2.5
3	Horseshoe Bar Rd/I-80 Westbound Ramp	Signal	14.6	B	14.6	B	0.0
4	Horseshoe Bar Rd/I-80 Eastbound Ramp[1]	TWSC	**621.0**	**F**	**621.0**	**F**	0.0
5	Barton Rd/Brace Rd[1]	TWSC	**43.1**	**E**	**48.4**	**E**	5.3
6	Sierra College Blvd/Taylor Rd	Signal	33.2	C	**43.4**	**D**	10.2
7	Sierra College Blvd/Brace Rd	Signal	20.3	C	20.1	C	-0.2
8	Sierra College Blvd/Granite Dr	Signal	28.3	C	33.9	C	5.6
9	Sierra College Blvd/I-80 WB Ramps	Signal	42.2	D	62.2	E	20.0
10	Sierra College Blvd/I-80 EB Ramps	Signal	36.4	D	39.0	D	2.6
11	Sierra College Blvd/Schriber Way	Signal	16.0	B	16.1	B	0.1
12	Sierra College Blvd/Bass Pro Dr-Dominguez Rd	Signal	**74.0**	**E**	**79.2**	**E**	5.2
13	Sierra College Blvd/Stadium Dwy	Signal	7.4	A	7.7	A	0.3
14	Sierra College Blvd/Rocklin Rd	Signal	**50.9**	**D**	**54.2**	**D**	3.3
15	Pacific St/Dominguez Rd-Delmar Ave	Signal	**56.4**	**E**	**60.4**	**E**	4.0
16	Pacific St/Rocklin Rd	Signal	**35.3**	**D**	**36.8**	**D**	1.5
17	Granite Dr/Rocklin Rd	Signal	**35.3**	**D**	**39.5**	**D**	4.2
18	I-80 Westbound Ramps/Rocklin Rd	Signal	23.2	C	23.2	C	0.0
19	I-80 Eastbound Ramps/Rocklin Rd	Signal	18.8	B	18.8	B	0.0
20	Aguilar Rd/Rocklin Rd	Signal	11.1	B	11.2	B	0.1
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.1	A	0.1	A	0.0
22	Granite Dr/Dominguez Rd	Signal	**73.9**	**E**	**76.9**	**E**	3.0
23	El Don Dr/Rocklin Rd	Signal	12.6	B	12.9	B	0.3
24	Sierra College Boulevard/Project Driveway	Signal	**898.5**	**F**	29.8	C	-868.7
25	Brace Road/Project Driveway	TWSC	DNE		12.0	B	-
26	Sierra College Blvd/SR-193	Signal	**186.1**	**F**	**192.6**	**F**	6.5
27	Sierra College Blvd/English Colony Way	Signal	18.9	B	19.7	B	0.8
28	Sierra College Blvd/Delmar Avenue	Signal	3.3	A	3.4	A	0.1
29	Taylor Rd/English Colony Way	Signal	**48.8**	**D**	**50.0**	**D**	1.2
30	Taylor Rd/Penryn Road (North)	TWSC	11.3	B	11.4	B	0.1
31	Taylor Rd/Penryn Road (South)	Signal	17.1	B	17.0	B	-0.1

ID	Intersection	Traffic Control Type	Long Term		Long Term plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS	
32	Taylor Rd/Del Oro High School North Lot	TWSC	20.7	C	22.1	C	1.4
33	Taylor Rd/Del Oro High School Drop-Off[1]	TWSC	**29.5**	**D**	**32.6**	**D**	3.1
34	Taylor Rd/Del Oro High School South Lot	TWSC	20.8	C	21.8	C	1.0
35	Taylor Rd/Rippey Road	TWSC	11.2	B	11.5	B	0.3
36	Taylor Rd/Webb Street	TWSC	**435.6**	**F**	**721.9**	**F**	286.3
37	Brace Road/Project Driveway East	TWSC	DNE		12.9	B	-

Notes:
AWSC: All-way stop control – The average intersection delay is reported.
TWSC: Two-way stop control - The delay reported reflects the critical movement.
N/A: Data not available at intersection.
DNE: Intersection does not exist.
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.
Shaded cell indicates significant Project impact
[1] An impact is significant in situations when the intersection is already operating at unacceptable LOS and the Project adds trips to the intersection exceeding 5% of the total traffic already at the intersection. At these locations, the project does not contribute 5% or more of the volumes.
Source: Kittelson & Associates, Inc. 2019



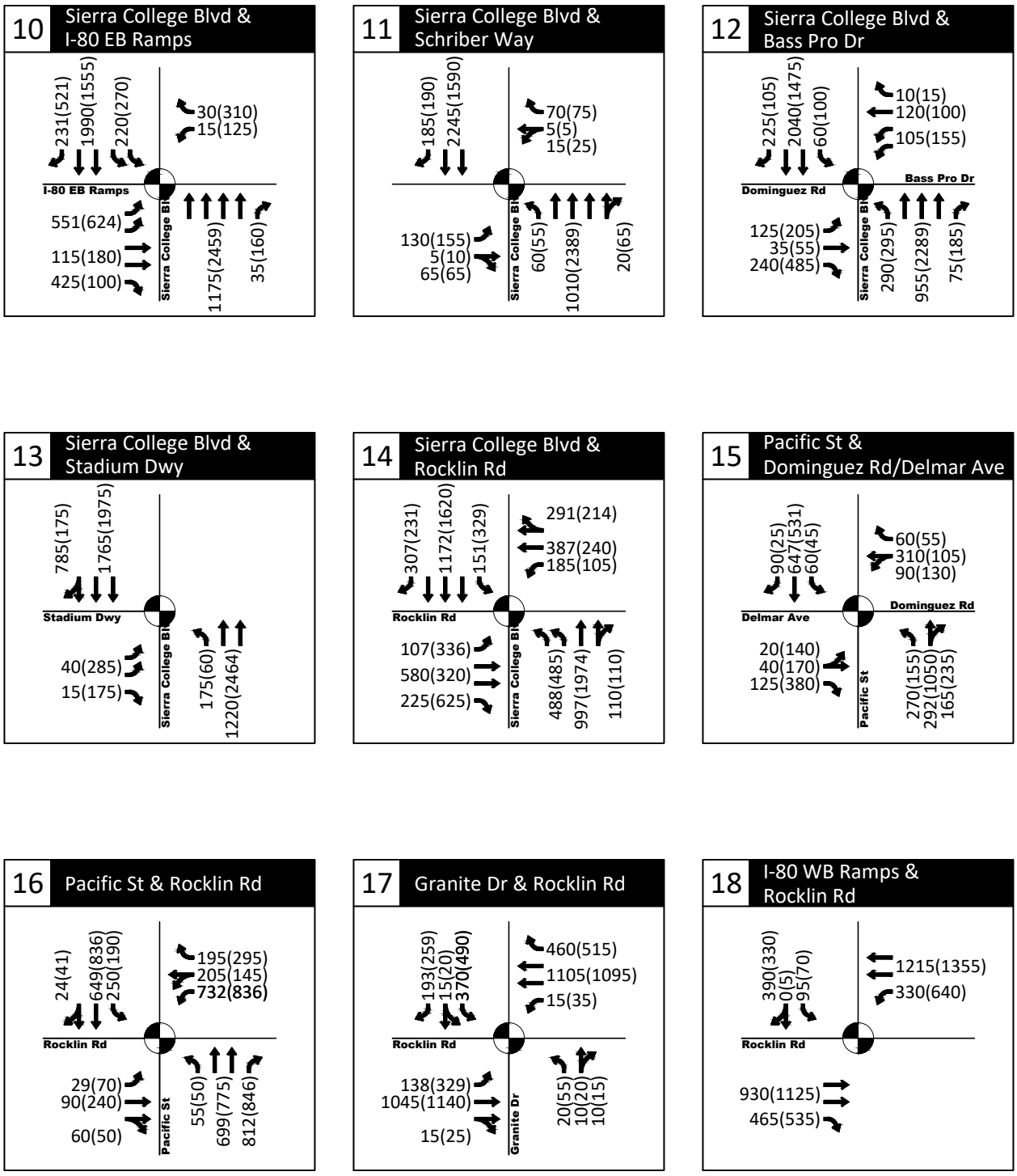
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Long Term Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
28A



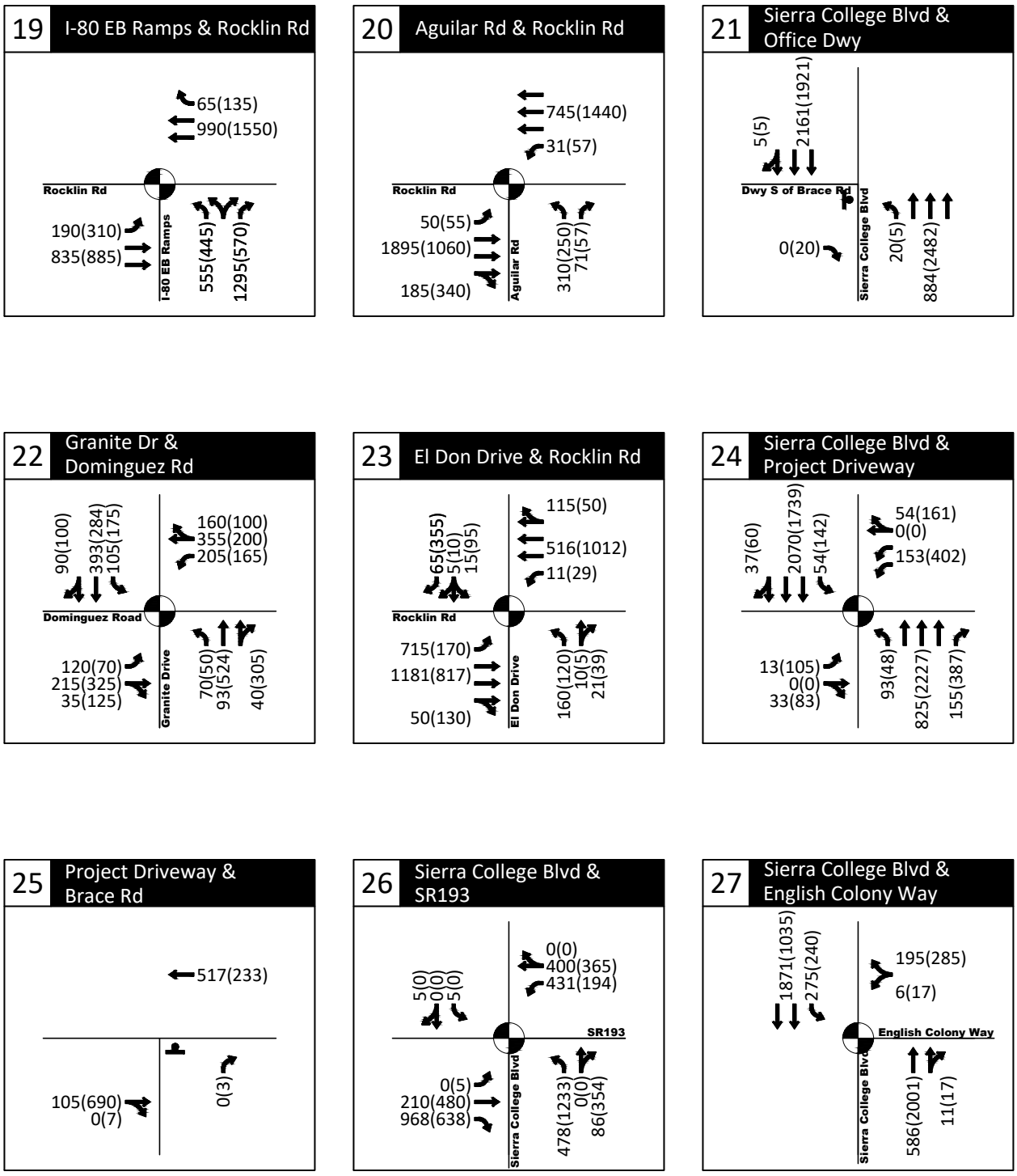
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Long Term Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
28B



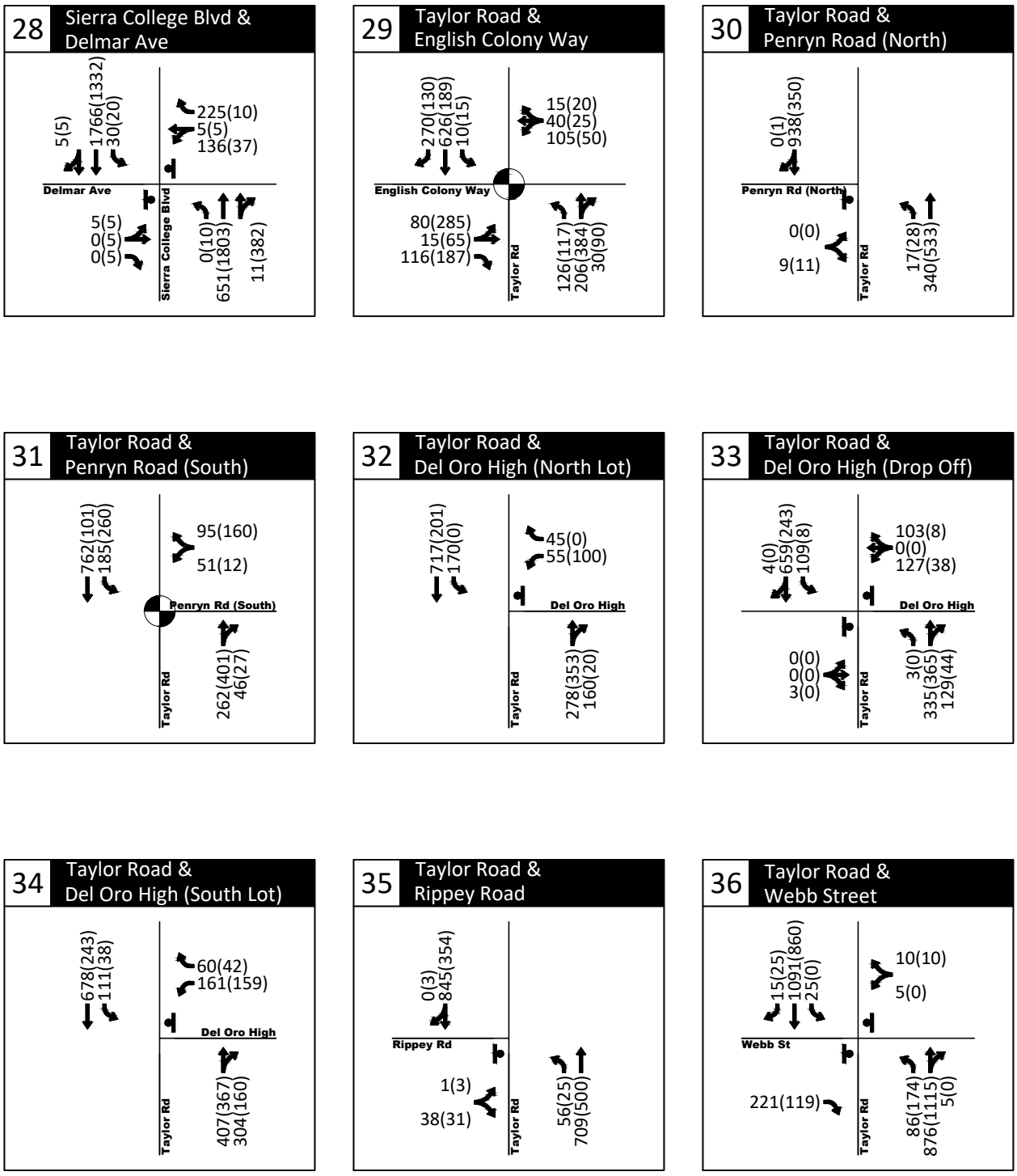
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Long Term Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
28C



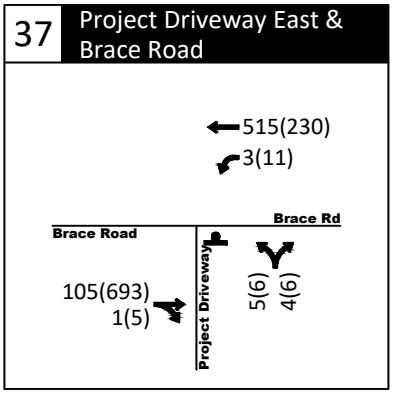
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Long Term Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
28D



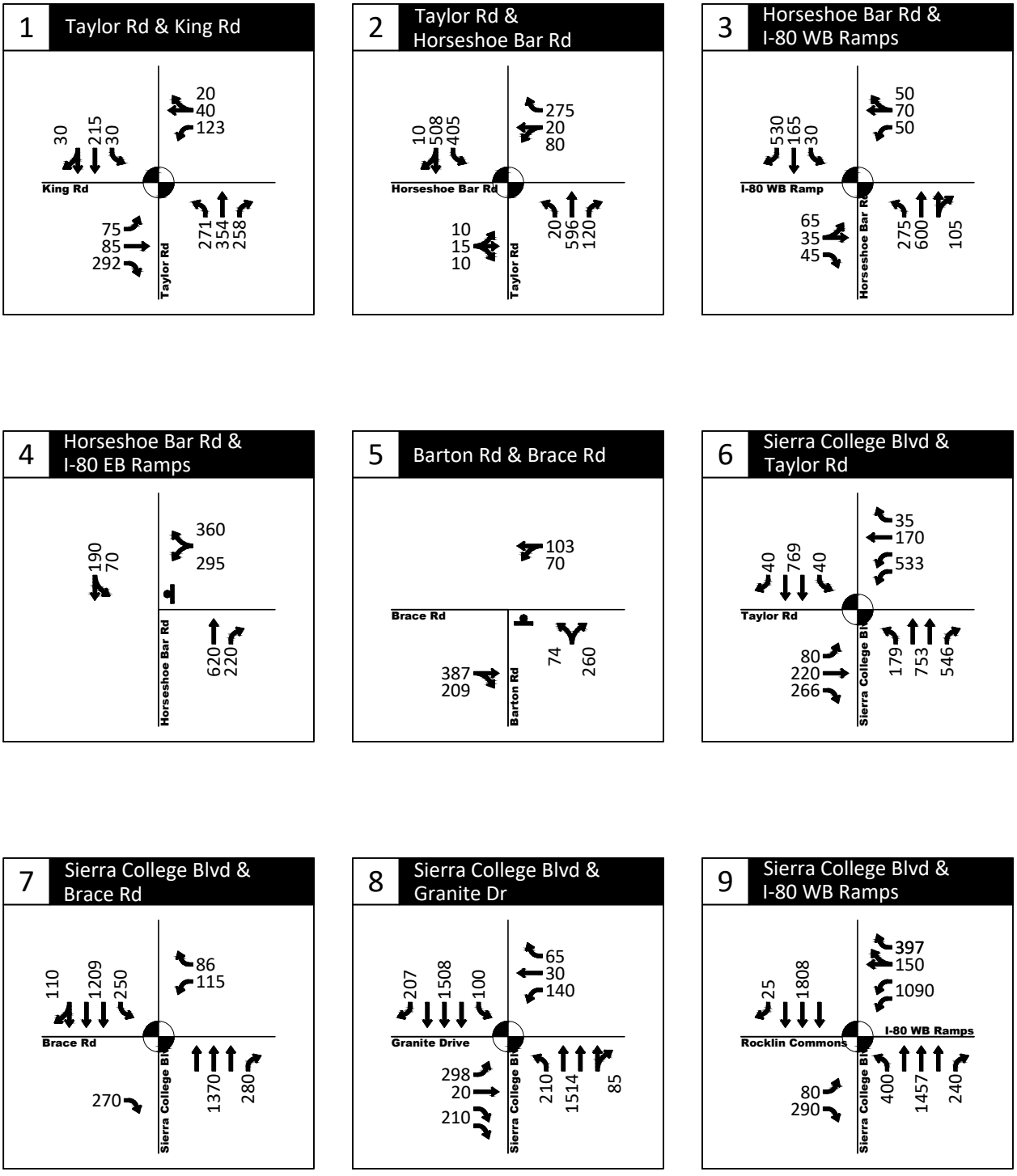
AM(PM) - Weekday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Long Term Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Option 1A
Loomis, California

Figure
28E



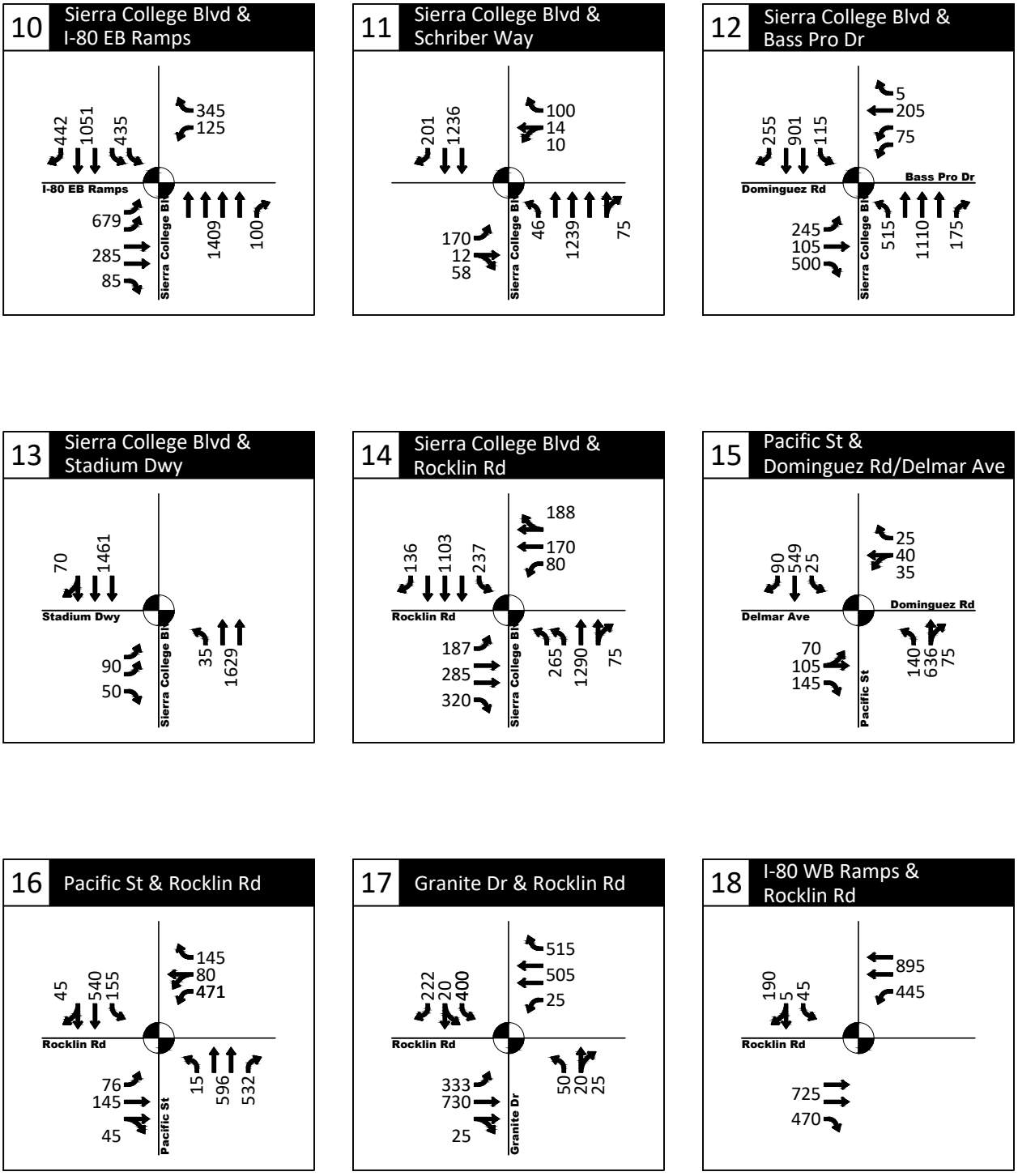
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Long Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
29A



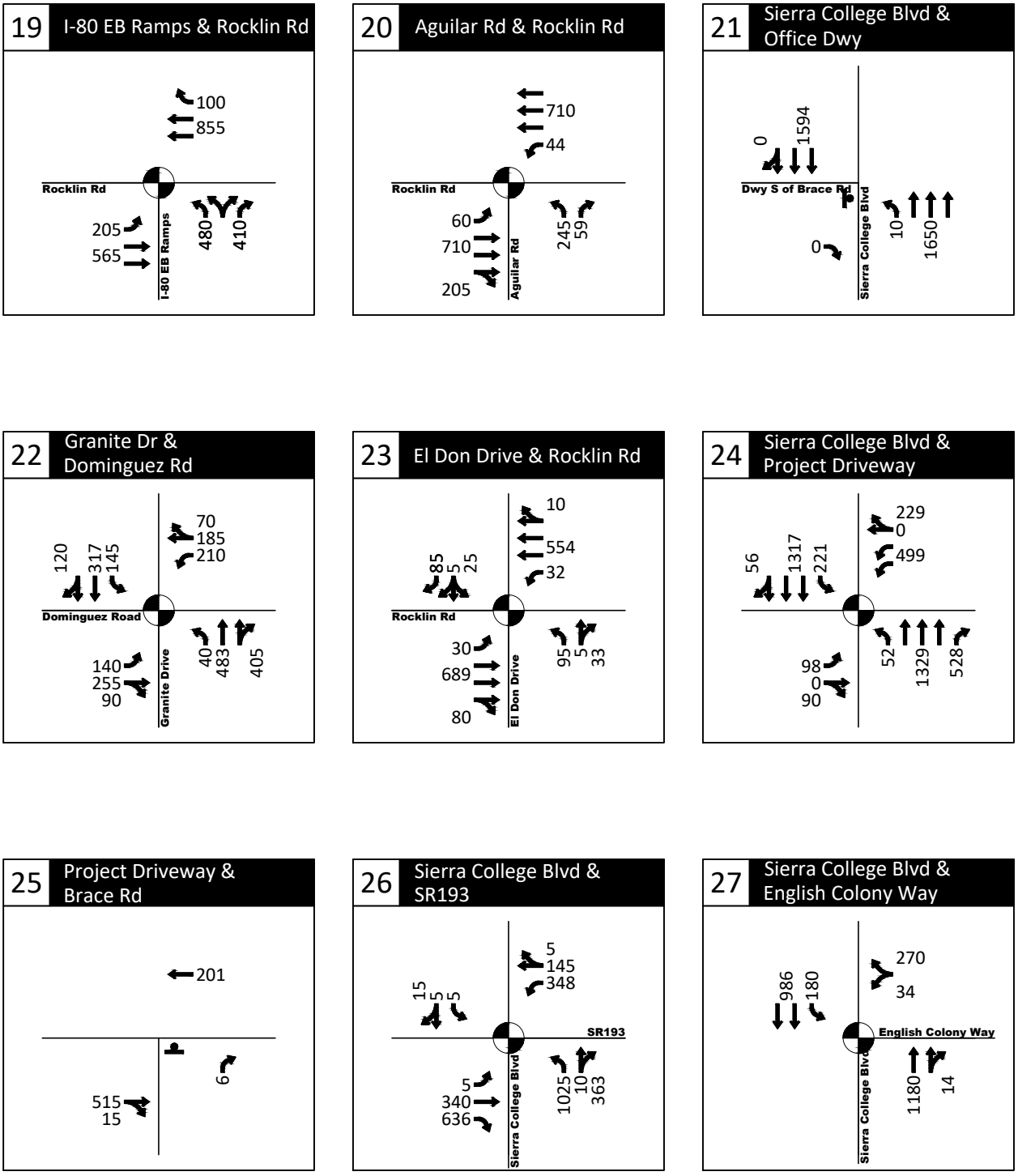
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Long Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
29B



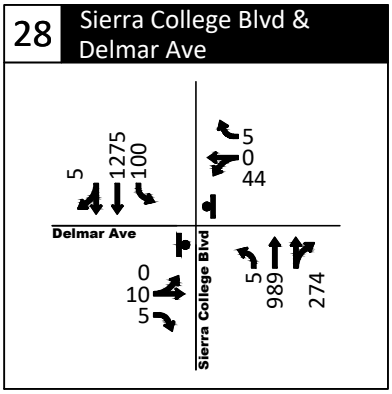
- Weekend Midday Traffic Volume

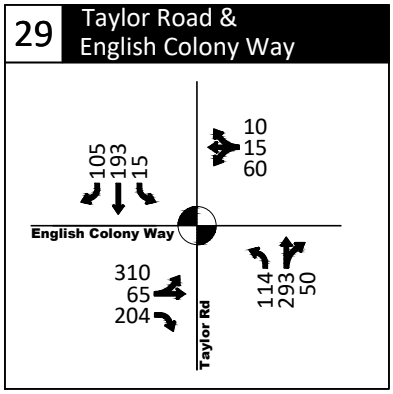
- Stop Sign

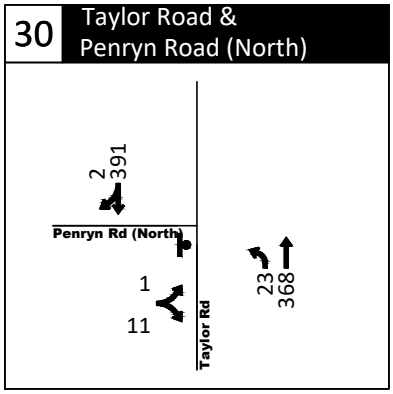
- Traffic Signal

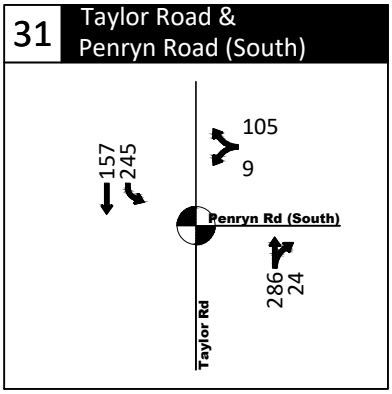
Cumulative Long Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

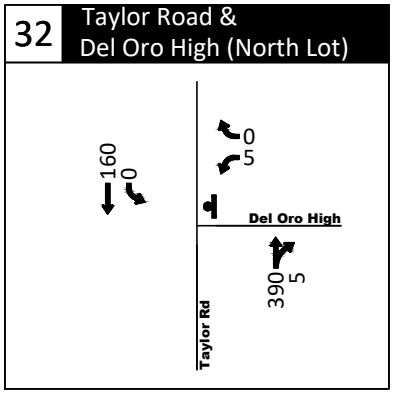
Figure
29C

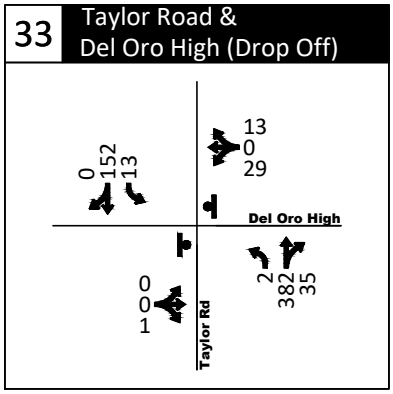


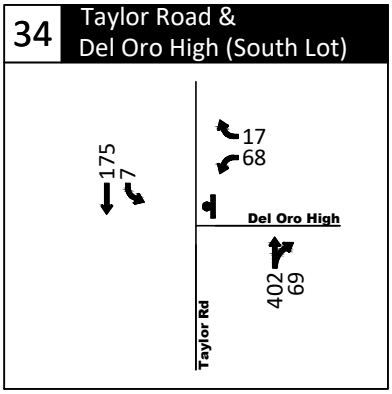


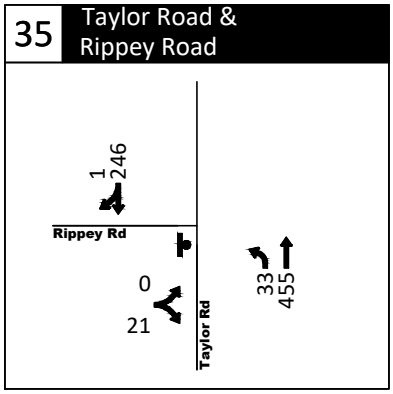


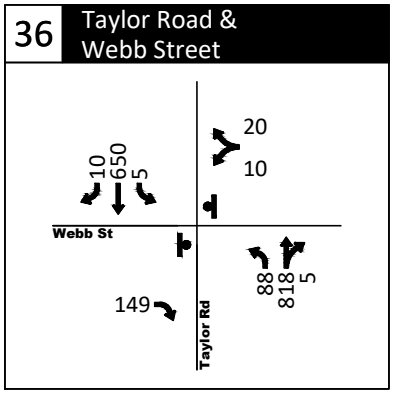












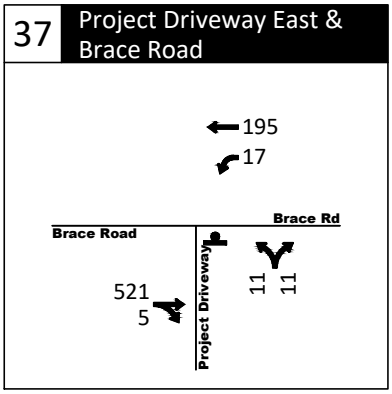
- Weekend Midday Traffic Volume

- Stop Sign

- Traffic Signal

Cumulative Long Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
29D



- Weekend Midday Traffic Volume
- Stop Sign
- Traffic Signal

Cumulative Long Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Option 1A
Loomis, California

Figure
29E

Project Driveway Options 1B & 1C

Project Driveway Options 1B and 1C would affect operations of study intersections 7, 8, 21, 24, 25, and 37 due to driveway trip routing. All other study intersections would operate the same under Project Driveway Options 1B and 1C as they would under Project Driveway Option 1A. Table 51 shows the baseline Cumulative Long Term No-Project and Plus Project delays and LOS for those study intersections affected by the options during the weekday AM and PM peak hours. Table 52 shows the baseline Cumulative Long Term No-Project and Plus Project delays and LOS for those study intersections affected by the options during the weekend midday peak hour.

As shown in the two tables, none of the six affected study intersections affected by site trip routing to the Project driveways are significantly impacted by the proposed Project for Project Driveway Options B and C

Table 51: Cumulative Long Term Plus Project - Intersection LOS Analysis, Weekday AM/PM Peak Hour – Project Driveway Options 1B & 1C

ID	Intersection	Traffic Control Type	Weekday AM					Weekday PM				
			Long Term		Plus Project		Change in Delay (sec)	Long Term		Plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS		Delay (sec)	LOS	Delay (sec)	LOS	
Driveway Option 1B												
7	Sierra College Blvd/ Brace Rd	Signal	12.9	B	48.0	D	35.1	**137.4**	**F**	**87.9**	**F**	-49.5
8	Sierra College Blvd/ Granite Dr	Signal	**36.4**	**D**	**38.8**	**D**	2.4	**68.5**	**E**	**55.3**	**E**	-13.2
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	1.2	A	1.2	A	0.0	23.5	C	24.6	C	1.1
24	Sierra College Blvd/ Project Driveway	Signal	**ERR[1]**	**F**	17.4	B	-	**6299.3**	**F**	31.3	C	-6198.0
25	Brace Road/ Project Driveway	TWSC	DNE		0.0	A	-	DNE		13.9	B	-
37	Brace Road/ Project Driveway East	TWSC	DNE					DNE				
Driveway Option 1C												
7	Sierra College Blvd/ Brace Rd	Signal	12.9	B	17.1	B	4.2	**137.4**	**F**	**76.5**	**F**	-60.9
8	Sierra College Blvd/ Granite Dr	Signal	**36.4**	**D**	**38.8**	**D**	2.4	**68.5**	**E**	**55.3**	**E**	-13.2
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	1.2	A	1.2	A	0.0	23.5	C	24.5	C	1.0
24	Sierra College Blvd/ Project Driveway	Signal	**ERR[1]**	**F**	17.3	B	-	**6299.3**	**F**	30.6	C	-6225.7
25	Brace Road/ Project Driveway	TWSC	DNE		0.0	A	-	DNE		13.9	B	-
37	Brace Road/ Project Driveway East	TWSC	DNE		10.9	B	-	DNE		14.6	B	-

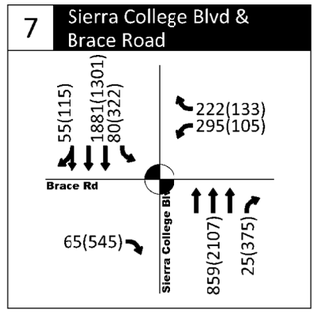
Notes:
AWSC: All-way stop control – The average intersection delay is reported.
TWSC: Two-way stop control - delay reported reflects the critical movement.
DNE: Intersection does not exist under no Project conditions.
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.
Shaded cell indicates significant Project impact
[1] Due to the high volumes, HCM2010 was unable to report approach delay
Source: Kittelson & Associates, Inc. 2019

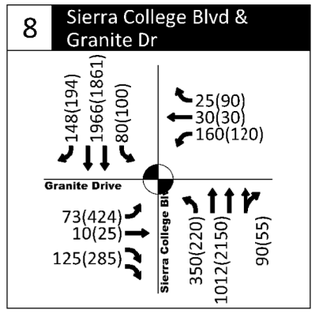
Table 52: Cumulative Long Term Plus Project - Intersection LOS Analysis, Weekend Midday Peak Hour – Project Driveway Options 1B & 1C

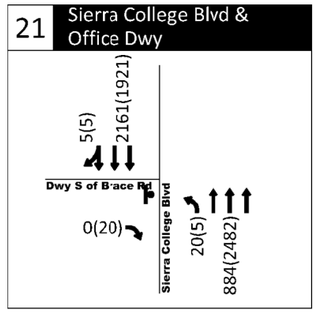
ID	Intersection	Traffic Control Type	Long Term		Plus Project		Change in Delay (sec)
			Delay (sec)	LOS	Delay (sec)	LOS	
Driveway Option 1B							
7	Sierra College Blvd/Brace Rd	Signal	20.3	C	29.4	C	9.1
8	Sierra College Blvd/Granite Dr	Signal	28.3	C	29.5	C	1.2
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.1	A	0.1	A	0.0
24	Sierra College Boulevard/Project Driveway	Signal	**898.5**	F	29.6	C	-868.9
25	Brace Road/Project Driveway	TWSC	DNE		12.0	B	-
37	Brace Road/Project Driveway East	TWSC	DNE				
Driveway Option 1C							
7	Sierra College Blvd/Brace Rd	Signal	20.3	C	19.8	B	-0.5
8	Sierra College Blvd/Granite Dr	Signal	28.3	C	29.5	C	1.2
21	Sierra College Blvd/Dwy South of Brace Rd	TWSC	0.1	A	0.1	A	0.0
24	Sierra College Boulevard/Project Driveway	Signal	**898.5**	F	28.3	C	-870.2
25	Brace Road/Project Driveway	TWSC	DNE		12.0	B	-
37	Brace Road/Project Driveway East	TWSC	DNE		12.9	B	-

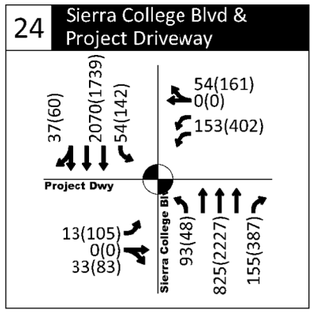
Notes:
AWSC: All-way stop control – The average intersection delay is reported.
TWSC: Two-way stop control - The delay reported reflects the critical movement.
DNE: Intersection does not exist under no Project conditions.
Boldface type indicates intersections performing below acceptable LOS. Refer to Table 1 for applicable operating standards.
Shaded cell indicates significant Project impact
Source: Kittelson & Associates, Inc. 2019

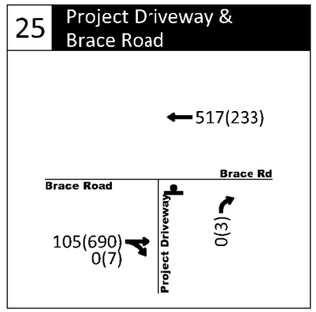
OPTION 1A

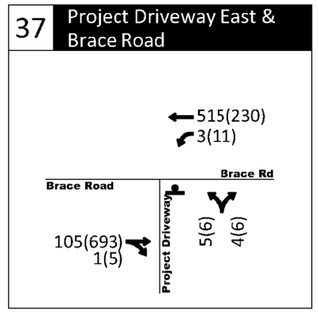




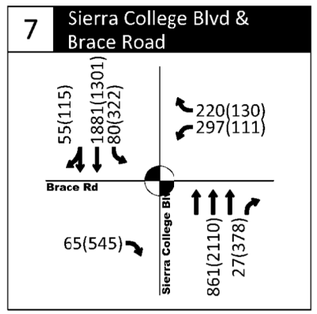


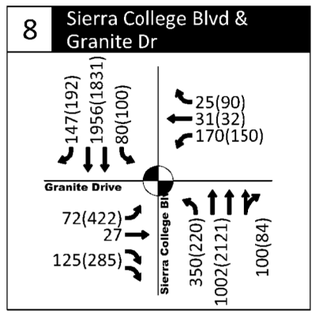


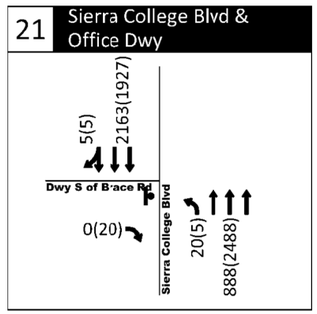


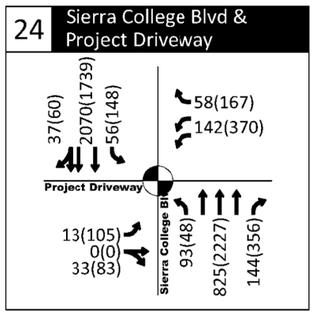


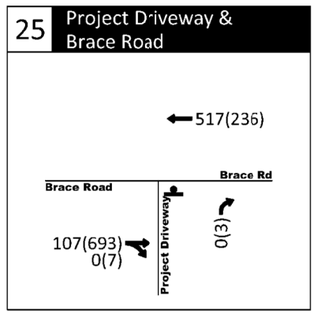
OPTION 1B

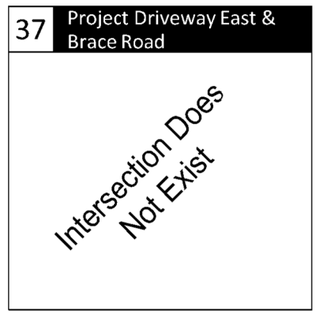












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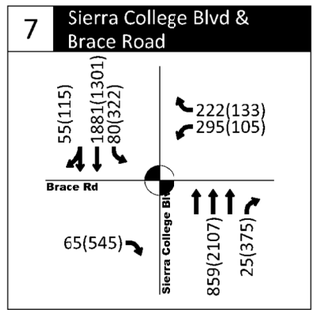
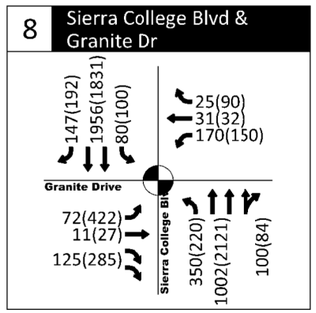
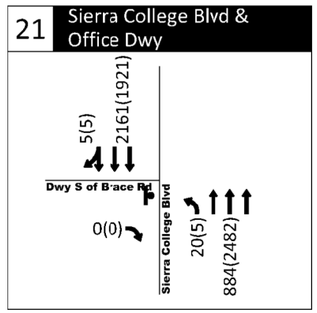
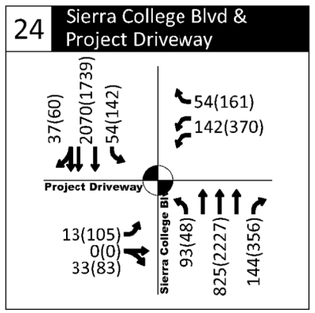
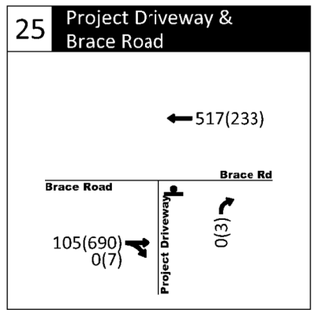
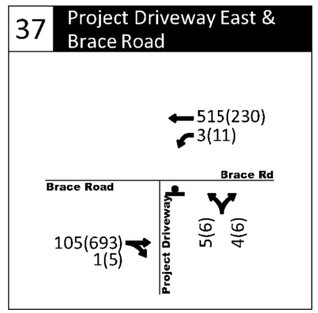












AM(PM) - Weekday Traffic Volume

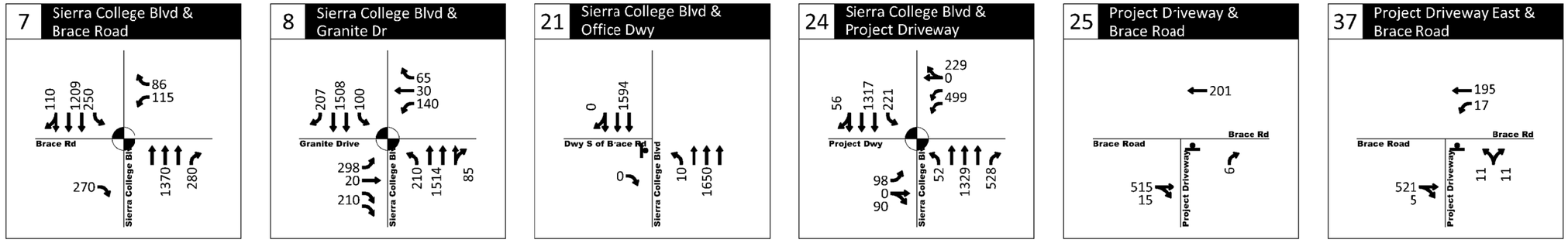
- Stop Sign

- Traffic Signal

Cumulative Long Term Plus Project Traffic Conditions
Weekday AM and PM Peak Hours - Project Driveway Options 1B & 1C
Loomis, California

Figure 30

OPTION 1A



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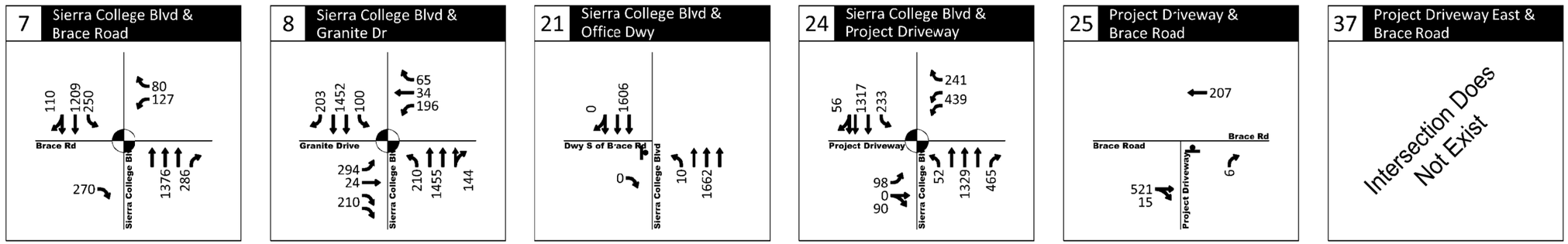

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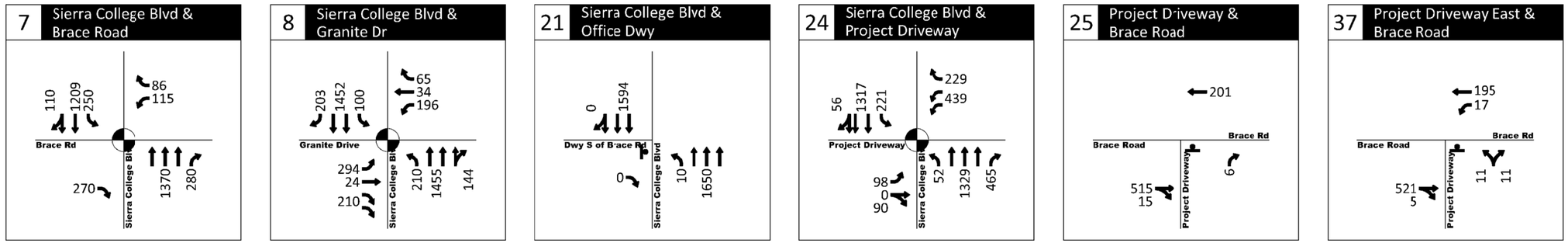


- Weekend Midday Traffic Volume
- Stop Sign
- Traffic Signal

Cumulative Long Term Plus Project Traffic Conditions
Weekend Midday Peak Hour - Project Driveway Options 1B & 1C
Loomis, California

Figure 31

KITTELSON & ASSOCIATES

10.1.2 Queuing Analysis

Appendix C provides the queue summary tables for the weekday AM, PM and weekend midday peak hours and the corresponding queuing worksheets. Appendix "G" includes the Project contribution tables.

Project Driveway Option 1A

The queues at the following intersections would extend beyond the storage lengths available at these locations for Project Driveway Option 1A:

- Taylor Road & King Road (AM, PM, and MD)
- Taylor Road & Horseshoe Bar Road (AM, PM, and MD)
- Horseshoe Bar Road & I-80 Westbound Ramp (AM, PM, and MD)
- Horseshoe Bar Road & I-80 Eastbound Ramp (PM and MD)
- Sierra College Boulevard & Taylor Road (AM, PM, and MD)
- Sierra College Boulevard & Brace Road (AM, PM, and MD)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- Sierra College Boulevard & I-80 WB Ramps (AM, PM, and MD)
- Sierra College Boulevard & I-80 EB Ramps (AM, PM, and MD)
- Sierra College Boulevard & Schriber Way (AM, PM, and MD)
- Sierra College Boulevard & Bass Pro Drive/Dominguez Road (AM, PM, and MD)
- Sierra College Boulevard & Stadium Dwy (AM and PM)
- Sierra College Boulevard & Rocklin Road (AM, PM, and MD)
- Pacific Street & Dominguez Road/Delmar Avenue (AM and PM)
- Pacific Street & Rocklin Road (AM, PM, and MD)
- Granite Drive & Rocklin Road (AM, PM, and MD)
- I-80 Westbound Ramps & Rocklin Road (AM, PM, and MD)
- I-80 Eastbound Ramps & Rocklin Road (AM and PM)
- Aguilar Road & Rocklin Road (AM)
- Granite Drive & Dominguez Road (AM, PM, and MD)
- El Don Drive & Rocklin Road (AM and PM)
- Sierra College Boulevard & Project Driveway (AM, PM, and MD)
- Sierra College Boulevard & SR-193 (AM, PM, and MD)
- Sierra College Boulevard & English Colony Way (AM, PM, and MD)
- Sierra College Boulevard & Delmar Avenue (AM)
- Taylor Road & English Colony Way (AM, PM, and MD)
- Taylor Road & Penryn Road (south) (AM, PM, and MD)

- Taylor Road & Del Oro High School North Lot (AM)
- Taylor Road & Del Oro High School Drop Off (AM)
- Taylor Road & Del Oro High School South Lot (AM)

In addition, the queues reported at the above locations would affect operations at the upstream locations as shown:

- The westbound through at Horseshoe Bar Road & I-80 Eastbound Ramp would back up to the I-80 Eastbound mainline (PM and MD)
- The northbound through at Sierra College Boulevard & Taylor Road would affect operations at Sierra College Boulevard & Brace Road (PM)
- The southbound left-turn at Sierra College Boulevard & Brace Road would affect operations at Sierra College Boulevard & Taylor Road (PM)
- The northbound left-turn at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (AM)
- The northbound through at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (PM)
- The southbound through at Sierra College Boulevard & I-80 WB Ramps would affect operations at Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- The southbound through at Sierra College Boulevard & Schriber Way would affect operations at Sierra College Boulevard & I-80 EB Ramps (AM and PM)
- The southbound through at Sierra College Boulevard & Bass Pro Drive/Dominguez Road would affect operations at Sierra College Boulevard & Schriber Way (AM and PM)
- The westbound left-turn at I-80 Westbound Ramps & Rocklin Road would affect operations at I-80 Eastbound Ramps & Rocklin Road (PM)
- The westbound through at I-80 Eastbound Ramps & Rocklin Road would affect operations at Aguilar Road & Rocklin Road (PM)
- The northbound through at Sierra College Boulevard & Project Driveway would affect operations at Sierra College Boulevard & Granite Drive (PM)

Based on the intersection queuing significant impact criteria presented in Section 2 (Project traffic causes queue overflow or if queues overflow under no Project, the Project contributes 5% of the total traffic for the movement), an intersection queue significant impact occurs at the following intersections:

- Taylor Road & King Road (MD)
- Taylor Road & Horseshoe Bar Road (MD)
- Sierra College Boulevard & Taylor Road (PM and MD)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- Sierra College Boulevard & I-80 WB Ramps (AM, PM, and MD)
- Granite Drive & Rocklin Road (MD)

- Sierra College Boulevard & Project Driveway (MD)

Project Driveway Options 1B & 1C

Project Driveway Options 1B and 1C would affect operations of study intersections 7, 8, 21, 24, 25, and 37 due to site driveway trip routing. All other study intersections would operate the same under Project Driveway Options 1B and 1C as they would under Project Driveway Option 1A. Of the six intersections affected by the driveway options, one or more 95th percentile queues would extend beyond the available storage lengths at the following intersections:

- Sierra College Boulevard & Brace Road (AM, PM, and MD)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- Sierra College Boulevard & Project Driveway (AM, PM, and MD)

In addition, the queues reported at the above locations would affect operations at the upstream locations as shown (for those intersections affected by the driveway options):

- The northbound through at Sierra College Boulevard & Taylor Road would affect operations at Sierra College Boulevard & Brace Road (PM)
- The southbound left-turn at Sierra College Boulevard & Brace Road would affect operations at Sierra College Boulevard & Taylor Road (PM)
- The northbound left-turn at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (AM)
- The northbound through at Sierra College Boulevard & Granite Drive would affect operations at Sierra College Boulevard & I-80 WB Ramps (PM)
- The northbound through at Sierra College Boulevard & Project Driveway would affect operations at Sierra College Boulevard & Granite Drive (PM)

Based on the intersection queuing significant impact criteria presented in Section 2 (Project traffic causes queue overflow or if queues overflows under no Project, the Project contributes 5% of the total traffic for the movement), an intersection queue significant impact occurs at the following affect study area intersections:

- Sierra College Boulevard & Brace Road (PM[17] and MD)
- Sierra College Boulevard & Granite Drive (AM, PM, and MD)
- Sierra College Boulevard & Project Driveway (MD)

[17] Weekday PM peak hour impacted for Project Driveway Option 1B only.

10.1.3 Supplemental Simulation Evaluation

The Cumulative Long Term plus Project conditions simulation evaluation was conducted with the same assumptions as outlined in Section 9.0 for Cumulative Long Term Conditions.

Project Driveway Option 1A

The Cumulative Long Term plus Project conditions simulation evaluation network performance results for Project Driveway Option 1A are presented in Table 53 and the arterial performance results are presented in Table 54. Please note that signal timing was not modified with the addition of Project trips. Recognizing the corridor is congested prior to adding Project trips, the two tables reflect increases in delay and the number of vehicles denied entry. Specifically, for the Sierra College Boulevard corridor, the Project increases delay, travel time, and reduces arterial speed for all peak hours and direction with the exception of weekday AM peak hour.

Table 53: Cumulative Long Term plus Project Conditions – Simulation Total Network Performance Results for Project Driveway Option 1A

Peak Hour	Long Term				Long Term plus Project			
	Total Delay/Vehicle (s)	Vehicles Entered	Vehicles Exited	Vehicles Denied Entry	Total Delay/Vehicle (s)	Vehicles Entered	Vehicles Exited	Vehicles Denied Entry
AM	173.9	9,765	9,377	1,099	266.0	9,038	8,196	1,104
PM	198.6	11,954	11,718	2,258	338.3	10,021	9,066	2,829
MD	106.2	11,316	11,208	625	222.8	10,519	9,773	1,349

Notes:
(s): seconds

Total Delay/Vehicle: Total delay is equal to the travel time minus the travel time for a vehicle with no other vehicles or control devices. This delay is divided by the number of vehicles to obtain the total delay per vehicle.

Vehicles Entered/Exited: Represents the number of vehicles counted entering and exiting the link or area during the interval. This value does not include vehicles moving from one intersection to the next with the arterial or network.

Vehicles Denied Entry: This value represents the number of vehicles unable to enter a link due to congestion and are waiting to enter. These vehicles can either be from an external link or from a mid-block source.

Source: Kittelson & Associates, Inc. 2019

Table 54: Cumulative Long Term plus Project Conditions – Simulation Sierra College Boulevard Arterial Performance Results for Project Driveway Option 1A

Segment	Peak Hour	Direction	Long Term			Long Term plus Project		
			Delay (s)	Travel Time (s)	Arterial Speed (mph)	Delay (s)	Travel Time (s)	Arterial Speed (mph)
Sierra College Boulevard between Taylor Road to Stadium Way	AM	Northbound	291.2	417.2	13	241.4	414.6	13
		Southbound	468.0	1,361.8	11	1,009.1	1,499.3	5
	PM	Northbound	471.5	1,611.8	9	1,130.6	2,527.8	4
		Southbound	419.7	776.8	11	527.0	735.3	9
	MD	Northbound	246.4	662.3	15	460.0	663.8	8
		Southbound	273.9	447.5	16	655.5	879.9	8

Notes:
(s): seconds
Total Delay: Total Delay for the average vehicle traveling the length of the corridor including stopped delay and congestion delay.
Total Travel Time: Time in seconds for the average vehicle to travel the length of the corridor.
Average Arterial Speed: Average speed of the average vehicle traveling the length of the corridor.
Source: Kittelson & Associates, Inc. 2019

It should be noted that the simulation results are inherently conservative considering the cumulative nature of how the Project trips were added without accounting for diversion of existing trips to and from the Roseville Costco and that the cumulative conditions do not necessarily fully account for trips made between residential, commercial, and employment uses within the developing community.

Project Driveway Options 1B & 1C

Project Driveway Options 1B and 1C affect operations along the simulated portion of the Sierra College Boulevard Corridor; therefore Cumulative Long Term plus Project conditions simulation evaluation was also conducted for Project Driveway Options 1B and 1C for informational purposes. The total network performance results of the simulation runs are presented in Table 55 and the arterial performance results are presented in Table 56. Please note that signal timing was not modified with the addition of Project trips.

As shown, the Project traffic increases network delay for all peak hours. In addition, the increased congestion on the network results in vehicles being denied entry into the network during the simulation period.

Table 55: Cumulative Long Term Plus Project Conditions – Simulation Total Network Performance Results – Project Driveway Options 1B & 1C

Peak Hour	Long Term				Long Term Plus Project			
	Total Delay/Vehicle (s)	Vehicles Entered	Vehicles Exited	Vehicles Denied Entry	Total Delay/Vehicle (s)	Vehicles Entered	Vehicles Exited	Vehicles Denied Entry
Driveway Option 1B								
AM	173.9	9,765	9,377	1,099	169.6	10,287	9,941	1,197
PM	198.6	11,954	11,718	2,258	207.7	13,196	12,936	2,544
MD	106.2	11,316	11,208	625	160.0	12,743	12,361	1,126
Driveway Option 1C								
AM	173.9	9,765	9,377	1,099	268.2	9,004	8,142	1,194
PM	198.6	11,954	11,718	2,258	268.9	10,390	9,487	2,453
MD	106.2	11,316	11,208	625	187.6	11,038	10,411	740

Notes:
(s): seconds
Total Delay/Vehicle: Total delay is equal to the travel time minus the travel time for a vehicle with no other vehicles or control devices. This delay is divided by the number of vehicles to obtain the total delay per vehicle.

Vehicles Entered/Exited: Represents the number of vehicles counted entering and exiting the link or area during the interval. This value does not include vehicles moving from one intersection to the next with the arterial or network.

Vehicles Denied Entry: This value represents the number of vehicles unable to enter a link due to congestion and are waiting to enter. These vehicles can either be from an external link or from a mid-block source.

Source: Kittelson & Associates, Inc. 2019

As shown, for the Sierra College Boulevard corridor, the Project increases delay, travel time, and reduces arterial speed for each of the peak hours analyzed. The detailed network and arterial performance output sheets are presented in Appendix "D".

Table 56: Cumulative Long Term Plus Project Conditions – Simulation Sierra College Boulevard Arterial Performance Results – Project Driveway Options 1B & 1C

Segment	Peak Hour	Direction	Long Term			Long Term Plus Project		
			Delay (s)	Travel Time (s)	Arterial Speed (mph)	Delay (s)	Travel Time (s)	Arterial Speed (mph)
Driveway Option 1B								
Sierra College Boulevard between Taylor Road and Stadium Way	AM	Northbound	291.2	417.2	13	245.2	377.1	15
		Southbound	468.0	1,361.8	11	454.8	1,151.3	11
	PM	Northbound	471.5	1,611.8	9	472.0	1,410.4	9
		Southbound	419.7	776.8	11	533.5	871.5	9
	MD	Northbound	246.4	662.3	15	307.7	822.5	12
		Southbound	273.9	447.5	16	608.5	1,051.4	9
Driveway Option 1C								
Sierra College Boulevard between Taylor Road and Stadium Way	AM	Northbound	291.2	417.2	13	229.5	400.2	13
		Southbound	468.0	1,361.8	11	947.4	1,340.4	6
	PM	Northbound	471.5	1,611.8	9	626.5	1,282.6	7
		Southbound	419.7	776.8	11	612.8	822.9	8
	MD	Northbound	246.4	662.3	15	443.0	657.2	9
		Southbound	273.9	447.5	16	502.7	728.6	9

Notes:
Total Delay: Total Delay for the average vehicle traveling the length of the corridor including stopped delay and congestion delay.
Total Travel Time: Time in seconds for the average vehicle to travel the length of the corridor.
Average Arterial Speed: Average speed of the average vehicle traveling the length of the corridor.
Source: Kittelson & Associates, Inc. 2019

10.2 PLACER COUNTY ROADWAY OPERATIONS

Analysis for the study segments was conducted using the LOS criteria defined as noted in Section 3.1. The three Project driveway options do not affect the Project traffic volumes for the roadway segments analyzed. Table 57 outlines the Cumulative Long Term with and without Project roadway volumes and associated level of service for the study segments and is applicable for all three Project driveway options.

As shown, Sierra College Boulevard between English Colony Way to the Loomis Town Limits continues to exceed the County's LOS C standard. The Project adds approximately 220 vehicles on the roadway segment which is under the impact threshold of 100 vehicles per lane, therefore the Project does not cause a significant impact. A second impact criteria is if the Project causes an increase in the V/C of 0.05 or more. Using the LOS E roadway capacity of 36,000 vehicles, the Long Term V/C is approximately 0.871 and for Long Term plus Project conditions the V/C is approximately 0.877. Therefore, the Project would contribute 0.006 to the V/C which is well under the 0.05 impact criteria and would not cause a significant impact under the secondary impact criteria.

Table 57: Cumulative Long Term plus Project Conditions – Placer County Weekday ADT Roadway Segment LOS Analysis

Roadway	Segment	Number of Lanes	Long Term		Long Term plus Project		
			ADT	LOS	Project ADT	ADT	LOS
Sierra College Boulevard (SCB)	SR-193 to English Colony Way	4	20,150	A	180	20,330	A
	English Colony Way to Delmar Ave	4	31,360	D	200	31,560	D
	Delmar Ave to Loomis Town Limits	4	29,920	D	220	30,140	D
SR-193	Lincoln City Limits to SCB	4	26,530	C	90	26,620	C
	SCB to Clark Tunnel Road	2	11,880	B	50	11,930	B

Notes:
ADT volumes sourced from Bickford Ranch Specific Plan EIR Addendum (October 2015) and adjusted based on City of Rocklin Travel Demand Model Growth Rates.
Source: Kittelson & Associates, Inc. 2019

10.3 FREEWAY FACILITIES EVALUATION

Cumulative Long Term Conditions traffic baseline traffic volumes for the weekday AM and PM peak hours were added to the site-generated traffic to arrive at the total traffic volumes.

10.3.1 Freeway Mainline Basic Segment Analysis

The three Project driveway options do not affect the Project traffic volumes for the freeway segments analyzed. Table 58 through Table 60 outline the Cumulative Long Term and Cumulative Long Term plus Project mainline volume, density and associated level of service for the study segments, and are applicable for all three Project driveway options. As shown two study segments exceed the acceptable LOS D with Project traffic:

- I-80 east of Sierra College Boulevard – Westbound (PM)
- I-80 west of Sierra College Boulevard – Westbound (PM)

No significant impacts occur to the freeway mainline under the Cumulative Long Term plus Project Conditions for all Project driveway options considered because there is no change in the LOS E projected under baseline (no project) conditions.

Appendix “E” includes the freeway mainline level-of-service worksheets.

Table 58: Cumulative Long Term – I-80 Mainline LOS Analysis, Weekday AM Peak Hour

ID	Segment	Direction	Long Term			Long Term plus Project			Change in Density
			Volume	Density	LOS	Volume	Density	LOS	
1	I-80 east of Sierra College	Eastbound	4,780	30.09	D	4,802	31.1	D	0.2
		Westbound	4,700	30.7	D	4,723	30.9	D	0.2
2	I-80 west of Sierra College	Eastbound	5,000	33.0	D	5,007	33.1	D	0.1
		Westbound	4,290	27.1	D	4,267	27.2	D	0.1

Notes:
Density: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

Table 59: Cumulative Long Term – I-80 Mainline LOS Analysis, Weekday PM Peak Hour

ID	Segment	Direction	Long Term			Long Term plus Project			Change in Density
			Volume	Density	LOS	Volume	Delay	LOS	
1	I-80 east of Sierra College	Eastbound	5,060	30.9	D	5,131	31.5	D	0.6
		Westbound	5,440	35.8	E	5,507	36.6	E	0.8
2	I-80 west of Sierra College	Eastbound	4,440	26.1	D	4,459	26.2	D	0.1
		Westbound	5,50	37.1	E	5,570	37.3	E	0.2

Notes:
Density: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

Table 60: Cumulative Long Term – I-80 Mainline LOS Analysis, Weekend MD Peak Hour

ID	Segment	Direction	Long Term			Long Term plus Project			Change in Density
			Volume	Density	LOS	Volume	Delay	LOS	
1	I-80 east of Sierra College	Eastbound	5,340	32.4	D	5,470	33.7	D	1.3
		Westbound	5,030	28.9	D	5,167	30.0	D	1.1
2	I-80 west of Sierra College	Eastbound	5,350	32.5	D	5,389	32.9	D	0.4
		Westbound	5,050	29.0	D	5,088	29.3	D	0.3

Notes:
Density: passenger cars/mile/lane
Source: Kittelson & Associates, Inc. 2019

10.3.2 Ramp Metering Supplemental Evaluation

The evalaution was prepared for informational purposes. The three Project driveway options do not affect the Project traffic volumes for the freeway ramps analyzed. Table 61 summarizes the projected queues associated with ramp metering assuming the ramp metering rate under no-Project conditions is held constant under plus Project conditions. The results are applicable for all three Project driveway options. The calculated queues with Project trips can be accommodated within the 1,200 feet of available storage area for all Project driveway options considered. Appendix "I" includes the ramp metering worksheets.

Table 61: Cumulative Long Term Plus Project – I-80 Westbound Slip-Ramp Ramp Meter Analysis

Peak Hour	Long Term		Long Term plus Project	
	Meter Rate (vehicles/hour)	Calculated Queue (feet)	Meter Rate (vehicles/hour)	Calculated Queue (feet)
AM	240	0	240	0
PM	450	473	450	954
MD	450	134	450	563

Notes:
Boldface type indicates if queue exceeds available ramp storage capacity of 1,200 feet.
Source: Kittelson & Associates, Inc. 2019

10.4 PEDESTRIAN AND BICYCLE EVALUATION

The proposed Project would provide pedestrian facilities on-site linking with public facilities along the site frontages on Sierra College Boulevard and Brace Road to provide connectivity with existing facilities. The project would reconstruct the Type II bicycle facility on Sierra College Boulevard northbound along the site frontage, including providing separate northbound right-turn lanes at the proposed signalized Project access and at Brace Road. In addition, the Project would provide bicycle parking on site for both members and employees.

Due to the nature of products and services provided by the Project, the Project would minimally increase pedestrian and bicycle traffic in the study area. Sidewalk connections would be provided along the Project site frontage with the proposed development along Sierra College Boulevard. The Project site would not be in conflict with applicable Town pedestrian and bicycle plans for any of the Project driveway options considered. The Project would have a less than significant impact on pedestrian and bicycle facilities.

10.5 TRANSIT EVALUATION

Due to the nature of products and services provided by the Project and limited transit connectivity provided adjacent to the site, the Project would minimally increase transit ridership in the study area. The nearest stop is approximately 0.6 mile from the Project site for routes with one hour and two hour headways. Due to the distance to the stop, relatively long headways, and employee shift times, it is unlikely that a significant number of employee trips would be added to the transit network. The project site would not be in conflict with applicable Placer County Transit plans or encroach on any lines or stops. The Project would have a less than significant impact on transit services and a new transit stop is not warranted at the Project site.

Project impacts on traffic flow could affect travel time for transit vehicles. Traffic flow impacts are addressed in the intersection evaluation sections of this study for all Project driveway options considered.

Section 11
Mitigation Measures

11.0 MITIGATION MEASURES

The following section outlines the mitigation measures and significance of each Project impact.

To reduce intensity of impacts to less than significant impact under CEQA, the following lists potential types of traffic mitigation measures for intersections:

- TR MM 1: Modify signal timing. Modify signal timing (to optimize cycle length and/or splits) at specific intersections to improve LOS and intersection operations.
- TR MM 2: Provide signal coordination. Provide signal communication interconnect to implement corridor signal timing plans.
- TR MM 3: Modify signal phasing. Modify traffic signal phasing sequence to improve LOS and intersection operations.
- TR MM 4: Restripe Intersection. Restripe intersection approaches to improve LOS and intersection operations.
- TR MM 5: Add exclusive turn lanes. Add exclusive turn lanes to improve LOS and intersection operations.
- TR MM 6: Provide a traffic signal.
- TR MM7: Provide additional storage. Modify median to provide additional storage for turn lane.

11.1 EXISTING PLUS PROJECT CONDITIONS

The following mitigation measures were evaluated to reduce the Project impacts to less than significant levels under CEQA. Table 62 presents the intersection and queuing mitigation measures under Existing plus Project Conditions.

Table 62: Existing plus Project Mitigation Measures

ID	Intersection	Project Driveway Option(s) Requiring Mitigation	Jurisdiction	Impact Type	Current Traffic Control	Mitigation Measure	Specific Actions Recommended	Effects of Mitigation
1	Taylor Road & King Road	Options 1A, 1B, 1C	Loomis	Queue	Signal	TR MM 1: Modify signal timing	Provide optimized cycle length with optimized splits based on current demand (110 second for MD peak hour)	Assigns green time to the highest demand movements allowing more vehicles to travel through the intersection
7	Sierra College Boulevard & Brace Road	Option 1B	Loomis	Queue	Signal	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Restripe the westbound right lane to a shared westbound left-right lane. Optimize cycle length and splits (60 seconds for PM and MD peak hour)	Provides additional left turn lane, allowing more vehicles to turn left during each signal phase
8	Sierra College Boulevard & Granite Dr	Option 1A	Rocklin	Queue	Signal	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Restripe northbound right turn lane to shared through-right lane. Optimize cycle length with optimized splits based on current demand. (115 seconds for PM peak hour)	Provides additional through lane, allowing more vehicles to travel through the intersection
8	Sierra College Boulevard & Granite Dr	Options 1B, 1C	Rocklin	Queue	Signal	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Restripe westbound through lane to left turn and restripe westbound right turn lane to a shared through-right lane. Optimize cycle length with optimized splits based on current demand. (95 seconds for AM peak hour, 115 seconds for PM peak hour, and 95 seconds MD peak hour)	Provides additional left turn lane, allowing more vehicles to turn left during each signal phase
9	Sierra College Boulevard & I-80 Westbound Ramps	Options 1A, 1B, 1C	Caltrans	Queue	Signal	TR MM 1: Modify signal timing	Provide optimized cycle length with optimized splits based on current demand (105 seconds for PM peak hour and 115 second for MD peak hour)	Assigns green time to the highest demand movements allowing more vehicles to travel through the intersection
17	Granite Drive & Rocklin Road	Options 1A, 1B, 1C	Rocklin	Queue	Signal	TR MM 1: Modify signal timing	Provide optimized cycle length with optimized splits based on current demand (100 seconds for MD peak hour)	Assigns green time to the highest demand movements allowing more vehicles to travel through the intersection
26	Sierra College Boulevard & SR-193	Options 1A, 1B, 1C	Placer	LOS	TWSC	TR MM 6: Provide a traffic signal	Install a traffic signal.[1]	Provides protected time (stops major street) to facilitate minor street movements
31	Taylor Road & Penryn Road (South)	Options 1A, 1B, 1C	Placer	LOS	TWSC	TR MM 6: Provide a traffic signal	Install a traffic signal. [1]	Provides protected time (stops major street) facilitate minor street movements
36	Taylor Road & Webb Street	Options 1A, 1B, 1C	Loomis	LOS	TWSC	TR MM 4: Restripe Intersection[2]	Eliminate 3 parking spaces on the north side of Webb Street and provide a 50 foot westbound right turn pocket.	Provides right turn lane, allowing these vehicles to move through intersection without waiting behind left/through vehicles

Notes:
[1] Traffic signal warrants met for impacted condition and provided in Appendix J.
[2] This intersection does not meet traffic signal warrants for impacted condition.
Source: Kittelson & Associates, Inc. 2019

The proposed mitigation measures were applied to the study intersections to evaluate LOS and queuing effects. Table 63 presents the LOS results in comparison to no Project conditions and Table 64 outlines the corresponding queueing results. The mitigation measures would reduce the LOS and queue impacts to less than significant levels at some of the impacted locations; however, significant and unavoidable impacts remain as noted. Some impacts are deemed to be significant and unavoidable impacts because the intersections are located beyond the Town of Loomis (lead agency) jurisdiction.

Appendix "B" includes the level-of-service worksheets and Appendix "C" contains the queueing worksheets.

Table 63: Existing Plus Project - Intersection LOS Analysis, Mitigation Results

ID	Intersection	Jurisdiction	Scenario	Existing		Existing Plus Project Mitigated		Change in Delay (sec)	Impact with mitigation?
				Delay (sec)	LOS	Delay (sec)	LOS		
Project Driveway Option 1A									
26	Sierra College Blvd & SR-193	Placer	PM	43.1	E	9.1	A	-34.0	Significant unavoidable*
31	Taylor Road & Penryn Road (South)	Placer	AM	233.5	F	9.3	A	-224.2	Significant unavoidable*
36	Taylor Road & Webb Street	Loomis	MD	70.2	F	99.1	F	28.9	Significant unavoidable[1]
Project Driveway Option 1B									
26	Sierra College Blvd & SR-193	Placer	PM	Same results as Project Driveway Option 1A					
31	Taylor Road & Penryn Road (South)	Placer	AM	Same results as Project Driveway Option 1A					
36	Taylor Road & Webb Street	Loomis	MD	Same results as Project Driveway Option 1A					
Project Driveway Option 1C									
26	Sierra College Blvd & SR-193	Placer	PM	Same results as Project Driveway Option 1A					
31	Taylor Road & Penryn Road (South)	Placer	AM	Same results as Project Driveway Option 1A					
36	Taylor Road & Webb Street	Loomis	MD	Same results as Project Driveway Option 1A					

Notes:

*Though the mitigation measure improves the intersection operation to less than significant levels, the mitigation measures are outside of the lead agency jurisdiction authority to implement and determine feasibility.

[1] Temporary impact given this impact can be mitigated with the westbound right-turn mitigation measure under Short Term and Long Term conditions. Traffic volumes projected at intersection do not meet signal traffic warrants. Note that an alternative route is available for Webb Street traffic traveling to Taylor Road by routing to the traffic signal at Taylor Road/Horseshoe Bar Road. Further, the Project does not add trips to the failing approach.

Source: Kittelson & Associates, Inc. 2019

Table 64: Existing Plus Project - Intersection Queuing Analysis, Mitigation Results

ID	Intersection	Jurisdiction	Peak Hour	Movement	Storage (feet)	No Project Queue (feet)	Mitigated Queue (feet)	Impact with mitigation?
Project Driveway Option 1A								
1	Taylor Road & King Road	Loomis	MD	WBL	95	133	126	Less than significant
8	Sierra College Boulevard & Granite Drive	Rocklin	PM	NBT	370	325	245	Significant unavoidable*
				SBT	495	427	443	Significant unavoidable*
				EBL	185	217	183	Significant unavoidable*
9	Sierra College Boulevard & I-80 WB Ramps	Caltrans	PM	SBT	370	378	365	Significant unavoidable*
			MD	SBT	370	268	361	Significant unavoidable*
17	Granite Drive & Rocklin Road	Rocklin	MD	EBL	225	294	211	Significant unavoidable*
Project Driveway Option 1B								
1	Taylor Road & King Road	Loomis	MD	WBL	95	Same results as Project Driveway Option 1A		
7	Sierra College Boulevard & Brace Road	Loomis	PM	WBL	100	92	72	Less than significant
			MD	WBL	100	79	62	Less than significant
8	Sierra College Boulevard & Granite Drive	Rocklin	AM	WBL	160	122	84	Significant unavoidable*
			PM	WBL	160	153	73	Significant unavoidable*
			MD	WBL	160	130	82	Significant unavoidable*
9	Sierra College Boulevard & I-80 WB Ramps	Caltrans	PM	SBT	370	Same results as Project Driveway Option 1A		
			MD	SBT	370	Same results as Project Driveway Option 1A		
17	Granite Drive & Rocklin Road	Rocklin	MD	EBL	225	Same results as Project Driveway Option 1A		
Project Driveway Option 1C								
1	Taylor Road & King Road	Loomis	MD	WBL	95	Same results as Project Driveway Option 1A		
8	Sierra College Boulevard & Granite Drive	Rocklin	AM	WBL	160	Same results as Project Driveway Option 1B		
			PM	WBL	160	Same results as Project Driveway Option 1B		
			MD	WBL	160	Same results as Project Driveway Option 1B		
9	Sierra College Boulevard & I-80 WB Ramps	Caltrans	PM	SBT	370	Same results as Project Driveway Option 1A		
			MD	SBT	370	Same results as Project Driveway Option 1A		
17	Granite Drive & Rocklin Road	Rocklin	MD	EBL	225	Same results as Project Driveway Option 1A		

Notes:
NB: northbound, SB: southbound, EB: eastbound, WD: westbound, L: left turn lane, T: through lane, R: right turn lane
*Though the mitigation measure improves the intersection operation to less than significant levels, the mitigation measures are outside of the lead agency jurisdiction's ability to determine feasibility and implement.
Source: Kittelson & Associates, Inc. 2019

11.2 CUMULATIVE SHORT TERM PLUS PROJECT CONDITIONS

The following mitigation measures were evaluated to reduce the Project impacts to less than significant levels under CEQA. Initial evaluation of potential timing and phasing mitigations measures were not sufficient to address impacts. Geometric mitigation measures such as second through lanes and dual left turn lanes would be required to reduce impacts to less than significant levels. Table 65 presents the intersection mitigation measures under Cumulative Short Term plus Project Conditions.

Applying the mitigation measures identified in Table 65, intersection analysis was conducted. Table 66 presents the LOS results in comparison to no Project conditions and Table 67 outlines the queueing results. The mitigation measures would reduce the LOS and queue impacts to less than significant levels at some of the impacted locations; however, significant and unavoidable impacts remain as shown. Some impacts are deemed to be significant and unavoidable impacts because the respective intersections are located beyond the Town of Loomis (lead agency) jurisdiction.

Appendix “B” includes the level-of-service worksheets and Appendix “C” contains the queueing worksheets.

Table 65: Cumulative Short Term plus Project Mitigation Measures

ID	Intersection	Project Driveway Option(s) Requiring Mitigation	Jurisdiction	Impact Type	Current Traffic Control	Mitigation Measure	Specific Actions Recommended	Effects of Mitigation
2	Taylor Road & Horseshoe Bar Road	Options 1A, 1B, 1C	Loomis	Queue	Signal	TR MM 1: Modify signal timing	Optimize cycle length and splits (90 seconds for MD peak hour)	Assigns green time to the highest demand movements allowing more vehicles to travel through the intersection
6	Sierra College Boulevard & Taylor Road	Options 1A, 1B, 1C	Loomis	LOS/ Queue	Signal	TR MM 1: Modify signal timing TR MM 3: Modify signal phasing TR MM 7: Add storage to turn pockets	Provide eastbound right turn overlap phasing and optimize cycle length and splits (100 seconds for PM peak hour and 100 seconds for MD peak hour). Modify median to provide additional storage for northbound and westbound left turn lanes (Project to provide fairshare funding for modification to be implemented with the Town's Sierra College Boulevard roadway widening project between Taylor Road and Brace Road).	Provides right turn with green arrow allowing more vehicles to travel through the intersection. Creates longer turn pockets to hold more vehicles.
7	Sierra College Boulevard & Brace Road	Option 1B	Loomis	Queue	Signal	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Restripe the westbound right lane to a shared westbound left-right lane. Optimize cycle length and splits (75 seconds for PM peak hour and 65 seconds for MD peak hour)	Provides additional left turn lane, allowing more vehicles to turn left during each signal phase
8	Sierra College Boulevard & Granite Drive	Option 1A	Rocklin	LOS/ Queue	Signal	TR MM 2: Provide signal coordination TR MM 4: Restripe Intersection	Restripe northbound right turn lane to shared through-right lane. Restripe the southbound right turn lane to a shared through-right lane. Provide eastbound right turn overlap phasing. Coordinate signal timing with I-80 ramps (120 seconds for AM peak hour, 135 seconds for PM peak hour and 130 seconds for MD peak hour)	Provides additional through lane, allowing more vehicles to travel through the intersection. Provides additional left turn lane, allowing more vehicles to turn left during each signal phase
8	Sierra College Boulevard & Granite Drive	Options 1B, 1C	Rocklin	LOS/ Queue	Signal	TR MM 2: Provide signal coordination TR MM 4: Restripe Intersection	Restripe the southbound right turn lane to a shared through-right lane. Restripe westbound through lane to left turn and restripe westbound right turn lane to a shared through-right lane. Provide eastbound right turn overlap phasing. Coordinate signal timing with I-80 ramps (120	Provides additional through lane, allowing more vehicles to travel through the intersection. Provides additional left turn lane, allowing more vehicles to turn left during each signal
9	Sierra College Boulevard & I-80 WB Ramps	Options 1A, 1B, 1C	Caltrans	LOS/ Queue	Signal	TR MM 1: Modify signal timing TR MM 5: Add exclusive turn lanes	Provide an additional northbound left turn lane. Restripe westbound through-right lane to through lane and provide an additional westbound right turn lane. Optimize coordinated cycle lengths (120 seconds for AM, 136 seconds for PM and 130 seconds for MD peak hour)	Provides additional left turn lane, allowing more northbound vehicles to turn left during each signal phase. New right-turn lane allows for separation of through and right turn traffic, increasing capacity
15	Pacific St & Dominguez Rd-Delmar Ave	Options 1A, 1B, 1C	Rocklin	LOS	Signal	TR MM 1: Modify signal timing	Optimize cycle length and splits (75 seconds for MD peak hour)	Assigns green time to the highest demand movements allowing more vehicles to travel through the intersection
17	Granite Drive & Rocklin Road	Options 1A, 1B, 1C	Rocklin	LOS/ Queue	Signal	TR MM 1: Modify signal timing	Optimize cycle length and splits (105 seconds for MD peak hour)	Assigns green time to the highest demand movements allowing more vehicles to travel through the intersection
24	Sierra College Boulevard & Project Driveway	Option 1A	Loomis	Queue	Signal	TR MM 1: Modify signal timing	Provide cycle length optimized for queues with optimized splits based on current demand (70 seconds for MD peak hour)	Assigns green time to the highest demand movements allowing more vehicles to travel through the intersection
26	Sierra College Boulevard & SR-193	Options 1A, 1B, 1C	Placer	LOS/Queue	TWSC	TR MM 6: Provide a traffic signal	Install a traffic signal.[1]	Provides protected time (stops major street) to facilitate minor street movements
27	Sierra College Boulevard & English Colony Way	Options 1A, 1B, 1C	Placer	LOS	TWSC	TR MM 6: Provide a traffic signal	Install a traffic signal.[1]	Provides protected time (stops major street to facilitate minor street movements
29	Taylor Road & English Colony Way	Options 1A, 1B, 1C	Placer	LOS	TWSC	TR MM 6: Provide a traffic signal.	Install a traffic signal.[1]	Provides protected time (stops major street) to facilitate minor street movements
31	Taylor Road & Penryn Road (South)	Options 1A, 1B, 1C	Placer	LOS	TWSC	TR MM 6: Provide a traffic signal.	Install a traffic signal. [1]	Provides protected time (stops major street) to facilitate minor street movements
36	Taylor Road & Webb Street	Options 1A, 1B, 1C	Loomis	LOS	TWSC	TR MM 4: Restripe Intersection	Eliminate 3 parking spaces on the north side of Webb Street and provide a 50 foot westbound right turn pocket.	Provides right turn lane, allowing these vehicles to move through intersection without waiting behind left/through vehicles

Notes:
[1] Traffic signal warrants met for impacted condition and provided in Appendix J.
Source: Kittelson & Associates, Inc. 2019

Table 66: Cumulative Short Term - Intersection LOS Analysis, Mitigation Results

ID	Intersection	Jurisdiction	Scenario	Short Term		Mitigated		Change in Delay (sec)	Impact with mitigation?
				Delay (sec)	LOS	Delay (sec)	LOS		
Project Driveway Option 1A									
6	Sierra College Boulevard & Taylor Road	Loomis	MD	31.7	C	33.4	C	1.7	Less than significant
8	Sierra College Boulevard & Granite Drive	Rocklin	PM	58.2	E	36.7	D	-25.1	Significant unavoidable*
			MD	39.9	D	42.0	D	2.1	Significant unavoidable*
9	Sierra College Boulevard & I-80 Westbound Ramps	Caltrans	PM	66.5	E	75.1	E	6.6	Significant unavoidable*
			MD	76.5	E	70.9	E	-5.6	Significant unavoidable*
15	Pacific St & Dominguez Rd-Delmar Ave	Rocklin	MD	32.1	C	31.8	C	-0.3	Significant unavoidable*
17	Granite Drive & Rocklin Road	Rocklin	MD	32.4	C	33.0	C	0.6	Significant unavoidable*
26	Sierra College Boulevard & SR-193	Placer	PM	79.4	F	15.2	B	-64.2	Significant unavoidable*
			MD	48.0	E	23.4	C	-24.6	Significant unavoidable*
27	Sierra College Boulevard & English Colony Way	Placer	PM	78.8	F	8.4	A	-70.4	Significant unavoidable*
			MD	25.5	D	5.0	A	-20.5	Significant unavoidable*
29	Taylor Road & English Colony Way	Placer	MD	24.8	C	8.6	A	-16.2	Significant unavoidable*
31	Taylor Road & Penryn Road (South)	Placer	AM	347.2	F	10.0	A	-337.2	Significant unavoidable*
36	Taylor Road & Webb Street	Loomis	MD	8006.9	F	52.9[1]	F	-7954.0	Less than significant
				9141.2[1]	F	52.9[1]	F	-9088.3	
Project Driveway Option 1B									
6	Sierra College Boulevard & Taylor Road	Loomis	MD	31.7	C	Same results as Project Driveway Option 1A			
8	Sierra College Boulevard & Granite Drive	Rocklin	PM	58.2	E	47.2	D	-11.0	Significant unavoidable*
			MD	39.9	D	31.6	C	-8.3	Significant unavoidable*
9	Sierra College Boulevard & I-80 Westbound Ramps	Caltrans	PM	66.5	E	54.6	D	-11.9	Significant unavoidable*
			MD	76.5	E	69.9	E	-6.6	Significant unavoidable*
15	Pacific St & Dominguez Rd-Delmar Ave	Rocklin	MD	32.1	C	Same results as Project Driveway Option 1A			
17	Granite Drive & Rocklin Road	Rocklin	MD	32.4	C	Same results as Project Driveway Option 1A			

ID	Intersection	Jurisdiction	Scenario	Short Term		Mitigated		Change in Delay (sec)	Impact with mitigation?
				Delay (sec)	LOS	Delay (sec)	LOS		
26	Sierra College Boulevard & SR-193	Placer	PM	79.4	F	Same results as Project Driveway Option 1A			
			MD	48.0	E	Same results as Project Driveway Option 1A			
27	Sierra College Boulevard & English Colony Way	Placer	PM	78.8	F	Same results as Project Driveway Option 1A			
			MD	25.5	D	Same results as Project Driveway Option 1A			
29	Taylor Road & English Colony Way	Placer	MD	24.8	C	Same results as Project Driveway Option 1A			
31	Taylor Road & Penryn Road (South)	Placer	AM	347.2	F	Same results as Project Driveway Option 1A			
36	Taylor Road & Webb Street	Loomis	MD	8006.9	F	Same results as Project Driveway Option 1A			
				9141.2[1]	F				
Project Driveway Option 1C									
6	Sierra College Boulevard & Taylor Road	Loomis	MD	31.7	C	Same results as Project Driveway Option 1A			
8	Sierra College Boulevard & Granite Drive	Rocklin	PM	58.2	E	Same results as Project Driveway Option 1B			
			MD	39.9	D	Same results as Project Driveway Option 1B			
9	Sierra College Boulevard & I-80 Westbound Ramps	Caltrans	PM	66.5	E	Same results as Project Driveway Option 1B			
			MD	76.5	E	Same results as Project Driveway Option 1B			
15	Pacific St & Dominguez Rd-Delmar Ave	Rocklin	MD	32.1	C	Same results as Project Driveway Option 1A			
17	Granite Drive & Rocklin Road	Rocklin	MD	32.4	C	Same results as Project Driveway Option 1A			
26	Sierra College Boulevard & SR-193	Placer	PM	79.4	F	Same results as Project Driveway Option 1A			
			MD	48.0	E	Same results as Project Driveway Option 1A			
27	Sierra College Boulevard & English Colony Way	Placer	PM	78.8	F	Same results as Project Driveway Option 1A			
			MD	25.5	D	Same results as Project Driveway Option 1A			
29	Taylor Road & English Colony Way	Placer	MD	24.8	C	Same results as Project Driveway Option 1A			
31	Taylor Road & Penryn Road (South)	Placer	AM	347.2	F	Same results as Project Driveway Option 1A			
36	Taylor Road & Webb Street	Loomis	MD	8006.9	F	Same results as Project Driveway Option 1A			

Notes:
*Though the mitigation measure improves the intersection operation to less than significant levels, the mitigation measures are outside of the lead agency jurisdiction's ability to determine feasibility and implement.
[1] Analysis run in HCS Software as the Synchro software was unable to assess the mitigation measure. The Short Term Baseline condition was also analyzed in HCS to provide a comparison.

Source: Kittelson & Associates, Inc. 2019

Table 67: Cumulative Short Term Plus Project - Intersection Queuing Analysis, Mitigation Results

ID	Intersection	Jurisdiction	Peak Hour	Movement	Storage (feet)	No Project Queue (feet)	Mitigated Queue (feet)	Impact with mitigation?
Project Driveway Option 1A								
2	Taylor Road & Horseshoe Bar Road	Loomis	MD	NBT	400	449	475	Significant unavoidable[1]
				SBT	380	367	423	Significant unavoidable[1]
6	Sierra College Boulevard & Taylor Rd	Loomis	PM	NBL	210	218	217	Less than significant[2]
			MD	NBL	210	206	254	Less than significant[2]
				WBL	215	269	290	Less than significant[2]
8	Sierra College Boulevard & Granite Drive	Rocklin	AM	SBT	495	474	282	Significant unavoidable*
			PM	NBT	370	618	417	Significant unavoidable*
				SBT	495	817	806	Significant unavoidable*
			MD	NBT	370	432	326	Significant unavoidable*
				SBT	495	655	537	Significant unavoidable*
				EBL	185	236	234	Significant unavoidable*
9	Sierra College Boulevard & I-80 Westbound Ramps	Caltrans	AM	SBT	370	428	167	Significant unavoidable*[3]
			PM	SBT	370	868	749	Significant unavoidable*[3]
			MD	SBT	370	782	781	Significant unavoidable*[3]
17	Granite Drive & Rocklin Road	Rocklin	MD	EBL	225	353	351	Significant unavoidable*
24	Sierra College Boulevard & Project Driveway	Loomis	MD	SBL	190	-	181	Less than significant
26	Sierra College Boulevard & SR-193	Placer	MD	NBR	40	43	30	Significant unavoidable*
Project Driveway Option 1B								
2	Taylor Road & Horseshoe Bar Road	Loomis	MD	NBT	400	Same results as Project Driveway Option 1A		
				SBT	380	Same results as Project Driveway Option 1A		
6	Sierra College Boulevard & Taylor Rd	Loomis	PM	NBL	210	Same results as Project Driveway Option 1A		
			MD	NBL	210	Same results as Project Driveway Option 1A		
				WBL	215	Same results as Project Driveway Option 1A		
7	Sierra College Boulevard & Brace Road	Loomis	PM	SBL	170	148	148	Less than significant
			MD	WBL	100	140	100	Less than significant
8	Sierra College Boulevard & Granite Drive	Rocklin	AM	SBT	495	474	358	Significant unavoidable*
				WBL	160	216	101	Significant unavoidable*

ID	Intersection	Jurisdiction	Peak Hour	Movement	Storage (feet)	No Project Queue (feet)	Mitigated Queue (feet)	Impact with mitigation?
			PM	NBT	370	618	217	Significant unavoidable*
				SBT	495	817	578	Significant unavoidable*
				WBL	160	163	102	Significant unavoidable*
			MD	NBT	370	432	259	Significant unavoidable*
				SBT	495	655	576	Significant unavoidable*
				EBL	185	236	228	Significant unavoidable*
				WBL	160	199	115	Significant unavoidable*
9	Sierra College Boulevard & I-80 Westbound Ramps	Caltrans	AM	SBT	370	428	143	Significant unavoidable*[3]
			PM	SBT	370	868	832	Significant unavoidable*[3]
			MD	SBT	370	782	782	Significant unavoidable*[3]
17	Granite Drive & Rocklin Road	Rocklin	MD	EBL	225	Same results as Project Driveway Option 1A		
Project Driveway Option 1C								
2	Taylor Road & Horseshoe Bar Road	Loomis	MD	NBT	400	Same results as Project Driveway Option 1A		
				SBT	380	Same results as Project Driveway Option 1A		
6	Sierra College Boulevard & Taylor Rd	Loomis	PM	NBL	210	Same results as Project Driveway Option 1A		
			MD	NBL	210	Same results as Project Driveway Option 1A		
				WBL	215	Same results as Project Driveway Option 1A		
8	Sierra College Boulevard & Granite Drive	Rocklin	AM	SBT	495	Same results as Project Driveway Option 1B		
				WBL	160	Same results as Project Driveway Option 1B		
			PM	NBT	370	Same results as Project Driveway Option 1B		
				SBT	495	Same results as Project Driveway Option 1B		
				WBL	160	Same results as Project Driveway Option 1B		
			MD	NBT	370	Same results as Project Driveway Option 1B		
				SBT	495	Same results as Project Driveway Option 1B		
				EBL	185	Same results as Project Driveway Option 1B		
				WBL	160	Same results as Project Driveway Option 1B		
9	Sierra College Boulevard & I-80 Westbound Ramps	Caltrans	AM	SBT	370	Same results as Project Driveway Option 1B		
			PM	SBT	370	Same results as Project Driveway Option 1B		
			MD	SBT	370	Same results as Project Driveway Option 1B		
17	Granite Drive & Rocklin Road	Rocklin	MD	EBL	225	Same results as Project Driveway Option 1A		

Notes:
NB: northbound, SB: southbound, EB: eastbound, WD: westbound, L: left turn lane, T: through lane, R: right turn lane
*Though the mitigation measure improves the intersection operation to less than significant levels, the mitigation measures are outside of the lead agency jurisdiction's ability to determine feasibility and implement.
[1] The proposed mitigation does not reduce queues to No Project Conditions and additional geometric improvements are not feasible due to site constraints.
[2] Less than significant with 254 feet of storage provided for NBL and 290 feet of storage provided for WBL as mitigation measure.

[3] Note queuing analysis results at intersection impacted by changes at Sierra College Boulevard & Granite Drive intersection to the north that impact coordinated traffic signal timing and thus impact queuing.
Source: Kittelson & Associates, Inc. 2019

11.3 CUMULATIVE LONG TERM PLUS PROJECT CONDITIONS

The following mitigation measures were evaluated to reduce the Project impacts to less than significant levels under CEQA. Initial evaluation of potential timing and phasing mitigation measures were not sufficient to address impacts. Geometric mitigation measures such as second through lanes and dual left turn lanes would be required to reduce impacts to less than significant levels.

Table 68 presents the intersection mitigation measures under Cumulative Long Term plus Project Conditions.

The proposed mitigation measures were applied to the study intersections to evaluate LOS and queuing effects. Table 69 presents the LOS results in comparison to no Project conditions and Table 70 outlines the queueing results. The mitigation measures would reduce the LOS and queue impacts to less than significant levels at some of the impacted locations; however, significant and unavoidable impacts remain as shown. Some impacts are deemed to be significant and unavoidable impacts because the respective intersections are located beyond the Town of Loomis (lead agency) jurisdiction.

Appendix “B” includes the level-of-service worksheets and Appendix “C” contains the queueing worksheets.

Table 68: Cumulative Long Term plus Project Mitigation Measures

ID	Intersection	Project Driveway Option(s) Requiring Mitigation	Jurisdiction	Impact Type	Current Traffic Control	Mitigation Measure	Specific Actions Recommended	Effects of Mitigation
1	Taylor Road & King Road	Options 1A, 1B, 1C	Loomis	Queue	Signal	TR MM 1: Modify signal timing	Optimize cycle length and splits (105 seconds for MD peak hour)	Assigns green time to the highest demand movements allowing more vehicles to travel through the intersection
2	Taylor Road & Horseshoe Bar Road	Options 1A, 1B, 1C	Loomis	Queue	Signal	TR MM 1: Modify signal timing	Optimize cycle length and splits (75 seconds for MD peak hour)	Assigns green time to the highest demand movements allowing more vehicles to travel through the intersection
6	Sierra College Boulevard & Taylor Road	Options 1A, 1B, 1C	Loomis	LOS/ Queue	Signal	TR MM 1: Modify signal timing TR MM 3: Modify signal phasing TR MM 7: Add storage to turn pockets	Provide eastbound right turn overlap phasing and optimize cycle length and splits (120 seconds for PM peak hour and 100 seconds for MD peak hour). Modify median to provide additional storage for northbound and westbound left turn lanes (Project to provide fairshare funding for modification to be implemented with the Town's Sierra College Boulevard roadway widening project between Taylor Road and Brace Road)	Provides right turn with green arrow allowing more vehicles to travel through the intersection. Creates longer turn pockets to hold more vehicles.
7	Sierra College Boulevard & Brace Road	Option 1B	Loomis	Queue	Signal	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Restripe the westbound right lane to a shared westbound left-right lane. Optimize cycle length and splits (130 seconds for PM peak hour and 90 seconds for MD peak hour)	Provides additional left turn lane, allowing more vehicles to turn left during each signal phase
8	Sierra College Boulevard & Granite Drive	Option 1A	Rocklin	LOS/ Queue	Signal	TR MM 2: Provide signal coordination TR MM 4: Restripe Intersection	Restripe northbound right turn lane to a shared through-right lane. Restripe eastbound right turn to shared through-right lane, restripe eastbound through lane to second left turn lane. Coordinate signal timing with I-80 ramps (145 seconds for AM peak hour, 150 seconds for PM peak hour, and 150 for MD peak hour)	Provides additional through and turn lane, allowing more vehicles to travel through the intersection. Provides additional left turn lane, allowing more vehicles to turn left during each signal phase
8	Sierra College Boulevard & Granite Drive	Options 1B, 1C	Rocklin	Queue	Signal	TR MM 2: Provide signal coordination TR MM 4: Restripe Intersection	Restripe westbound through lane to left turn and restripe westbound right turn lane to a shared through-right lane. Provide eastbound right turn overlap phasing. Optimize cycle length and splits (145 seconds for AM peak hour and 115 for MD peak hour). Coordinate signal timing with I-80 ramps (150 seconds for PM peak hour)	Provides additional left turn lane, allowing more vehicles to turn left during each signal phase
9	Sierra College Boulevard & I-80 WB Ramps	Option 1A	Caltrans	Queue	Signal	TR MM 1: Modify signal timing TR MM 5: Add exclusive turn lanes.	Provide an additional northbound left turn lane. Optimize coordinated cycle lengths (145 seconds for AM peak hour, 150 seconds for PM peak hour and 150 seconds for MD peak hour)*	Provides additional left turn lane, allowing more vehicles to turn left during each signal phase
9	Sierra College Boulevard & I-80 WB Ramps	Options 1B, 1C	Caltrans	Queue	Signal	TR MM 1: Modify signal timing TR MM 5: Add exclusive turn lanes.	Provide an additional northbound left turn lane. Optimize coordinated cycle lengths (145 seconds for AM peak hour, 150 seconds for PM peak hour and 126 seconds for MD peak hour)	Provides additional left turn lane, allowing more vehicles to turn left during each signal phase
12	Sierra College Boulevard/ Bass Pro Dr-Dominguez Road	Options 1A, 1B, 1C	Rocklin	LOS	Signal	TR MM 1: Modify signal timing	Optimize cycle length and splits (150 seconds for MD peak hour)	Assigns green time to the highest demand movements allowing more vehicles to travel through the intersection
17	Granite Drive & Rocklin Road	Options 1A, 1B, 1C	Rocklin	Queue	Signal	TR MM 1: Modify signal timing	Optimize cycle length and splits (110 seconds for MD peak hour)	Assigns green time to the highest demand movements allowing more vehicles to travel through the intersection
24	Sierra College Boulevard & Project Dwy	Option 1A	Loomis	Queue	Signal	TR MM 2: Provide signal coordination	Coordinate signal timing with Granite Drive and I-80 ramps (75 seconds for PM peak hour and 75 for MD peak hour)	Provides better progression through corridor
24	Sierra College Boulevard & Project Dwy	Options 1B, 1C	Loomis	Queue	Signal	TR MM 7: Add storage to turn pockets	Modify median to provide additional storage for southbound left turn lane (Project to implement with Sierra College Boulevard roadway widening along Project frontage).	Creates longer turn pockets to hold more vehicles
26	Sierra College Boulevard & SR-193	Options 1A, 1B, 1C	Placer	LOS	Signal	TR MM 1: Modify signal timing TR MM 5: Add exclusive turn lanes	Provide an additional northbound left turn lane and optimize cycle lengths and splits (130 seconds for MD peak hour)	Provides additional left turn lane, allowing more vehicles to turn left during each signal phase
36	Taylor Road & Webb Street	Options 1A, 1B, 1C	Loomis	LOS	TWSC	TR MM 4: Restripe Intersection	Eliminate 3 parking spaces on the north side of Webb Street and provide a 50 foot westbound right turn pocket.	Provides right turn lane, allowing these vehicles to move through intersection without waiting behind left/through vehicles

Notes:
*Though the mitigation measure improves the intersection operation to less than significant levels, the mitigation measures are outside of the lead agency jurisdiction's ability to determine feasibility and implement. Note: queuing analysis results at intersection impacted by changes at Sierra College Boulevard & Granite Drive intersection to the north that impact coordinated traffic signal timing and thus impact queuing.
Source: Kittelson & Associates, Inc. 2019

Table 69: Cumulative Long Term - Intersection LOS Analysis, Mitigation Results

ID	Intersection	Jurisdiction	Scenario	Long Term		Mitigated		Change in Delay (sec)	Impact with mitigation?
				Delay (sec)	LOS	Delay (sec)	LOS		
Project Driveway Option 1A									
6	Sierra College Boulevard & Taylor Rd	Loomis	MD	33.2	C	35.0	C	1.8	Less than significant
8	Sierra College Boulevard & Granite Drive	Rocklin	PM	68.5	E	57.8	E	-10.7	Significant unavoidable*
12	Sierra College Boulevard/ Bass Pro Dr-Dominguez Road	Rocklin	MD	74.0	E	76.5	E	2.5	Significant unavoidable*
26	Sierra College Boulevard & SR-193	Placer	MD	186.1	F	71.1	E	-115.0	Significant unavoidable*
36	Taylor Road & Webb Street	Loomis	MD	435.6	F	428.9	F	-6.7	Less than significant
Project Driveway Option 1B									
6	Sierra College Boulevard & Taylor Rd	Loomis	MD	33.2	C	Same results as Project Driveway Option 1A			
12	Sierra College Boulevard/ Bass Pro Dr-Dominguez Road	Rocklin	MD	74.0	E	Same results as Project Driveway Option 1A			
26	Sierra College Boulevard & SR-193	Placer	MD	186.1	F	Same results as Project Driveway Option 1A			
36	Taylor Road & Webb Street	Loomis	MD	435.6	F	Same results as Project Driveway Option 1A			
Project Driveway Option 1C									
6	Sierra College Boulevard & Taylor Rd	Loomis	MD	33.2	C	Same results as Project Driveway Option 1A			
12	Sierra College Boulevard/ Bass Pro Dr-Dominguez Road	Rocklin	MD	74.0	E	Same results as Project Driveway Option 1A			
26	Sierra College Boulevard & SR-193	Placer	MD	186.1	F	Same results as Project Driveway Option 1A			
36	Taylor Road & Webb Street	Loomis	MD	435.6	F	Same results as Project Driveway Option 1A			

Notes:
*Though the mitigation measure improves the intersection operation to less than significant levels, the mitigation measures are outside of the lead agency jurisdiction's ability to determine feasibility and implement.
Source: Kittelson & Associates, Inc. 2019

Table 70: Cumulative Long Term Plus Project - Intersection Queuing Analysis, Mitigation Results

ID	Intersection	Jurisdiction	Peak Hour	Movement	Storage (feet)	No Project Queue (feet)	Mitigated Queue (feet)	Impact with mitigation?
Project Driveway Option 1A								
1	Taylor Road & King Road	Loomis	MD	WBL	95	110	110	Less than significant
2	Taylor Road & Horseshoe Bar Road	Loomis	MD	NBT	400	504	494	Less than significant
6	Sierra College Boulevard & Taylor Rd	Loomis	PM	NBL	210	217	214	Less than significant
			MD	NBL	210	205	203	Less than significant
				WBL	215	256	288	Less than significant[1]
8	Sierra College Boulevard & Granite Drive	Rocklin	AM	NBT	365	285	205	Significant unavoidable*
				SBT	495	586	571	Significant unavoidable*
			PM	NBT	365	1078	616	Significant unavoidable*
				SBT	495	487	466	Significant unavoidable*
			MD	NBT	365	384	318	Significant unavoidable*
				SBT	495	260	416	Significant unavoidable*
				EBL	185	301	199	Significant unavoidable*
9	Sierra College Boulevard & I-80 WB Ramps	Caltrans	AM	SBT	370	803	863	Significant unavoidable[2]
			PM	SBT	370	874	750	Significant unavoidable*
			MD	SBT	370	595	166	Significant unavoidable*
17	Granite Drive & Rocklin Road	Rocklin	MD	EBL	225	419	395	Significant unavoidable*
24	Sierra College Boulevard & Project Dwy	Loomis	PM	SBL	190	-	123	Less than significant
			MD	SBL	190	-	182	Less than significant
Project Driveway Option 1B								
1	Taylor Road & King Road	Loomis	MD	WBL	95	Same results as Project Driveway Option 1A		
2	Taylor Road & Horseshoe Bar Road	Loomis	MD	NBT	400	Same results as Project Driveway Option 1A		
6	Sierra College Boulevard & Taylor Rd	Loomis	PM	NBL	210	Same results as Project Driveway Option 1A		
			MD	NBL	210	Same results as Project Driveway Option 1A		
				WBL	215	Same results as Project Driveway Option 1A		
7	Sierra College Boulevard & Brace Road	Loomis	PM	WBL	100	149	149	Less than significant
			MD	SBL	170	264	262	Less than significant

ID	Intersection	Jurisdiction	Peak Hour	Movement	Storage (feet)	No Project Queue (feet)	Mitigated Queue (feet)	Impact with mitigation?
				WBL	100	115	109	Less than significant
8	Sierra College Boulevard & Granite Drive	Rocklin	AM	SBT	495	586	606	Significant unavoidable[2]
				WBL	160	263	135	Significant unavoidable*
			PM	NBT	365	1078	823	Significant unavoidable*
				SBT	495	487	694	Significant unavoidable[2]
				WBL	160	162	119	Significant unavoidable*
			MD	NBT	365	384	384	Significant unavoidable*
				WBL	160	138	96	Significant unavoidable*
9	Sierra College Boulevard & I-80 WB Ramps	Caltrans	AM	SBT	370	803	849	Significant unavoidable[2,3]
			PM	SBT	370	874	971	Significant unavoidable[2,3]
			MD	SBT	370	595	712	Significant unavoidable[2,3]
17	Granite Drive & Rocklin Road	Rocklin	MD	EBL	225	Same results as Project Driveway Option 1A		
24	Sierra College Boulevard & Project Dwy	Loomis	MD	SBL	190	-	207	Less than significant[4]
Project Driveway Option 1C								
1	Taylor Road & King Road	Loomis	MD	WBL	95	Same results as Project Driveway Option 1A		
2	Taylor Road & Horseshoe Bar Road	Loomis	MD	NBT	400	Same results as Project Driveway Option 1A		
6	Sierra College Boulevard & Taylor Rd	Loomis	PM	NBL	210	Same results as Project Driveway Option 1A		
			MD	NBL	210	Same results as Project Driveway Option 1A		
				WBL	215	Same results as Project Driveway Option 1A		
8	Sierra College Boulevard & Granite Drive	Rocklin	AM	SBT	495	Same results as Project Driveway Option 1B		
				WBL	160	Same results as Project Driveway Option 1B		
			PM	NBT	365	Same results as Project Driveway Option 1B		
				SBT	495	Same results as Project Driveway Option 1B		
				WBL	160	Same results as Project Driveway Option 1B		
			MD	NBT	365	Same results as Project Driveway Option 1B		
				WBL	160	Same results as Project Driveway Option 1B		
9	Sierra College Boulevard & I-80 WB Ramps	Caltrans	AM	SBT	370	Same results as Project Driveway Option 1B		
			PM	SBT	370	Same results as Project Driveway Option 1B		
			MD	SBT	370	Same results as Project Driveway Option 1B		
17	Granite Drive & Rocklin Road	Rocklin	MD	EBL	225	Same results as Project Driveway Option 1A		
24	Sierra College Boulevard & Project Dwy	Loomis	PM	SBL	190	Same results as Project Driveway Option 1A		

ID	Intersection	Jurisdiction	Peak Hour	Movement	Storage (feet)	No Project Queue (feet)	Mitigated Queue (feet)	Impact with mitigation?
			MD	SBL	190	Same results as Project Driveway Option 1A		

NB: northbound, SB: southbound, EB: eastbound, WD: westbound, L: left turn lane, T: through lane, R: right turn lane
*Though the mitigation measure improves the intersection operation to less than significant levels, the mitigation measures are outside of the lead agency jurisdiction's ability to determine feasibility and implement.
[1] Less than significant with 288 feet of storage provided for WBL as mitigation measure for Option 1A and 356 for Option 1B.
[2] The impact could not be mitigated to less than significant levels. A fourth southbound through lane may be needed to accommodate traffic volumes.
[3] Note queuing analysis results at intersection impacted by changes at Sierra College Boulevard & Granite Drive intersection to the north that impact coordinated traffic signal timing and thus impact queuing.
[4] Less than significant with 207 feet of storage provided for SBL.
Source: Kittelson & Associates, Inc. 2019

11.4 SECONDARY IMPACTS OF MITIGATION MEASURES

The LOS and queue mitigation measures proposed to reduce the Project impacts to less than significant levels could potentially trigger additional LOS and queue impacts. The LOS and queue outputs for each mitigated intersection were reviewed to ensure that additional Project impacts did not occur after the mitigation measures were in place. The output sheets are provided in Appendix "B" for LOS and Appendix "C" for queueing. No additional impacts were found with the implementation of mitigation measures.

11.5 EMPLOYEE TRANSPORTATION DEMAND MANAGEMENT PROGRAM

Costco proposes to develop and implement an employee Transportation Demand Management (TDM) program at the Loomis site. The TDM program will seek to reduce peak period single-occupancy vehicle trips that would otherwise be made by site employees[18]. The TDM program will identify measures that encourage Costco employees to use alternatives to driving alone when traveling to and from work.

Key elements of the Loomis site TDM Program plan are expected to include[19]:

- use of a staggered shift operation, scheduling employee shift changes outside of the typical commuter peak time periods (7:00 to 9:00 AM and 4:00 to 6:00 PM)
- encouraging ride sharing in the form of employee carpools and vanpools
- an on-site employee transportation coordinator (ETC) who can assist and be responsible for promoting, facilitating, and coordinating carpools and vanpools for employees with similar shift patterns
- an employee orientation program addressing commuting options
- potential incentives encouraging employee participation in a rideshare program

[18] The nature of the Costco operations (i.e., bulk purchasing, business wholesale shopping, and fueling) necessitate vehicular travel by Costco members due to the need for vehicles to transport the goods and fuel purchased. This is consistent with other retail uses in that the retailer has little or no control over how and/or when customers travel to and from the subject site.

[19] Note that Costco employee use of Placer County Transit service to commute to and from the Project site is not included in the TDM program elements at this time based on the current lack of frequent transit service within a ¼ mile walking distance of the Project site as well as the shift times of Costco employees not being well served by current transit opportunities. Future incorporation of a transit element to the TDM program could be considered if future Placer County Transit service opportunities are located closer to the Project site and service times/frequency would better support Project site employee commuting.

- encouraging bicycling and walking as viable commute options, including provision of bicycle racks and employee lockers for storage of change clothing and personal items to provide more convenience to bicycle and walking commuters
- an employee kitchen and café/deli services on site that are available to employees within the Costco warehouse, reducing the need for employees to travel off site for meals and/or break periods

Section 12 Conclusions and Recommendations

12.0 CONCLUSIONS

The results of the traffic impact analysis indicate that the proposed Project would impact traffic operations and require appropriate mitigations to address the impacts. The proposed mitigation measures would not reduce Project impacts to less than significant levels under CEQA therefore significant unavoidable impacts remain.

12.1 FINDINGS

Based on the analysis methodology and significance criteria approved by the Town, Table 71 lists the study intersections performing at unacceptable level-of-service (LOS) as well as locations impacted by the Project. Table 72 lists the study intersections where queues extend beyond the available storage lengths as well as locations impacted by the Project.

The following assumptions were applied to the study conditions.

12.1.1 Project Development Plan

The proposed development was estimated to generate 4,330 daily net new trips; 130 net new trips (65 inbound, 65 outbound) were projected to occur during the weekday AM peak hour; 391 net new trips (190 inbound, 201 outbound) were projected to occur during the weekday PM peak hour and 766 net new trips (391 inbound, 375 outbound) were projected to occur during the weekend midday peak hour.

Costco will provide the following transportation infrastructure in conjunction with site development.

- Sierra College Boulevard Changes
  - Restripe the existing northbound right-turn lane on Sierra College Boulevard approaching Granite Drive from an exclusive right-turn lane to a shared through/right-turn lane (for Project Driveway Options 1B and 1C only).
  - Dedicate right-of-way and widen Sierra College Boulevard along the Project site frontage and restripe the roadway to provide three northbound through travel lanes and a northbound Class II bicycle lane between Granite Drive and Brace Road.
  - Signalize the proposed new Costco site access intersection on Sierra College Boulevard.
  - Provide traffic signal interconnect between the proposed new Costco site access signalized intersection and the adjacent intersections along Sierra College Boulevard at Brace Road and Granite Drive.
  - Construct a separate northbound right-turn lane on Sierra College Boulevard approaching the proposed new signalized site access intersection. Provide a right-turn overlap signal phase at the intersection.

- Construct a southbound left-turn lane on Sierra College Boulevard approaching the proposed new signalized Costco site access intersection.
- Construct a separate northbound right-turn lane on Sierra College Boulevard approaching the signalized Brace Road intersection (the turn lane is proposed to include a 90-foot long taper and 200 feet of right-turn storage). Provide a right-turn overlap signal phase at the intersection.

- Brace Road
  - Dedicate right-of-way and construct standard half-street improvements along the Brace Road site frontage.
  - Install a raised median on Brace Road between Sierra College Boulevard and the existing Homewood Lumber driveway to the east to limit Costco access to right-turns only.
- Granite Drive (for Project Driveway Options 1B and 1C only)
  - Reconstruct Granite Drive east of Sierra College Boulevard to provide side-by-side eastbound and westbound left-turn lanes separated by a new raised median between Sierra College Boulevard and the new north-south drive aisle to the Costco Project site (including widening east of the existing private driveways on Granite Drive to accommodate the side-by-side left-turn lane).

12.1.2 Cumulative Short Term Traffic Conditions

No background improvements were assumed on the transportation network with the exception of approved/pending project access to the existing roadway network.

12.1.3 Cumulative Long Term Traffic Conditions

The following roadway improvements were assumed under 2030 conditions:

- Sierra College Boulevard: widened to 5-6 lanes from Taylor Road to south of Rocklin Road (includes assumed southbound frontage improvements along the currently vacant commercial property west of Sierra College Boulevard between Granite Drive and Brace Road and only 2 northbound lanes between Granite Drive and Brace Road)
- Sierra College Boulevard & Highway 193 intersection signalization
- Sierra College Boulevard & English Colony Way intersection signalization
- Sierra College Boulevard & Delmar Avenue intersection signalization
- Taylor Road & Penryn Road intersection signalization
- Taylor Road & English Colony Way intersection signalization

- Pacific Street: widened to 4 lanes from Town of Loomis boundary line to Delmar Avenue/Dominguez Road
- Rocklin Road: widened to 6 lanes from east of Granite Drive (not improved at Granite Drive) to west of Sierra College Boulevard; widened to 4 lanes east of Sierra College Boulevard
- Dominguez Road extension from Granite Drive to Sierra College Boulevard: 2 lanes provided (including signalization of the Granite Drive & Dominguez Road intersection)

12.1.4 On-Site Circulation/Site Access Operations

All but one of the access points would function acceptably with the proposed geometry and control. In the Cumulative Long-term With Project condition, the southbound left turn at the signalized Sierra College Boulevard Project driveway requires 17 feet of additional storage under all Project driveway options. The additional southbound left-turn storage is expected to be required in the future in conjunction with installation of a third southbound through lane on Sierra College Boulevard which will result the shortening of the off-site northbound left-turn lane serving property on the west side of Sierra College Boulevard. The existing left-turn pocket is approximately 95 feet long and experiences queues of 20 feet or less during all analysis scenarios.

12.1.5 CEQA Conclusions Summary

Based on the mitigation measures proposed in Section 11, Table 73 outlines the CEQA conclusion for each impacted study location. Please note that mitigation measures outside of the lead agency jurisdiction to determine feasibility based on location and subsequently implement are considered significant and unavoidable.

Table 71: Study Area Intersection LOS Results Summary

ID	Intersection	Jurisdiction	Existing Conditions				Cumulative Short Term Conditions				Cumulative Long Term Conditions			
			Unacceptable LOS?		Project Impact?	Significance after Mitigation?	Unacceptable LOS?		Project Impact?	Significance after Mitigation?	Unacceptable LOS?		Project Impact?	Significance after Mitigation?
			Existing	Existing + Project			Short Term	Short Term + Project			Long Term	Long Term + Project		
1	Taylor Road & King Road	Loomis	-	-	-	-	Yes	Yes	-	-	Yes	Yes	-	-
2	Taylor Road & Horseshoe Bar Road	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
3	Horseshoe Bar Road & I-80 Westbound Ramp	Caltrans	-	-	-	-	-	-	-	-	-	-	-	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	Caltrans	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
5	Barton Road & Brace Road	Loomis	-	-	-	-	-	-	-	-	Yes	Yes	-	-
6	Sierra College Boulevard & Taylor Road	Loomis	Yes	Yes	-	-	Yes	Yes	Yes	LTS	Yes	Yes	Yes	LTS
7	Sierra College Boulevard & Brace Road	Loomis	-	-	-	-	-	-	-	-	Yes	Yes	-	-
8	Sierra College Boulevard & Granite Drive	Rocklin	-	-	-	-	Yes	Yes	Yes	SU	Yes	Yes	Yes[1]	SU
9	Sierra College Boulevard & I-80 Westbound Ramps	Caltrans	-	-	-	-	-	Yes	Yes	SU	-	-	-	-
10	Sierra College Boulevard & I-80 Eastbound Ramps	Caltrans	-	-	-	-	-	-	-	-	-	-	-	-
11	Sierra College Boulevard & Schriber Way	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
12	Sierra College Boulevard & Bass Pro Drive-Dominguez Road	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	Yes	SU
13	Sierra College Boulevard & Stadium Driveway	Rocklin	-	-	-	-	-	-	-	-	-	-	-	-
14	Sierra College Boulevard & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
15	Pacific Street & Dominguez Road-Delmar Avenue	Rocklin	Yes	Yes	-	-	Yes	Yes	Yes	SU	Yes	Yes	-	-
16	Pacific Street & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
17	Granite Drive & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	Yes	SU	Yes	Yes	-	-
18	I-80 Westbound Ramps & Rocklin Road	Caltrans	-	-	-	-	-	-	-	-	Yes	Yes	-	-
19	I-80 Eastbound Ramps & Rocklin Road	Caltrans	-	-	-	-	-	-	-	-	Yes	Yes	-	-
20	Aguilar Road & Rocklin Road	Rocklin	-	-	-	-	-	-	-	-	-	-	-	-
21	Sierra College Boulevard & Driveway South of Brace Road	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
22	Granite Drive & Dominguez Road	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
23	El Don Drive & Rocklin Road	Rocklin	Yes	Yes	-	-	-	-	-	-	Yes	Yes	-	-
24	Sierra College Boulevard & Project Driveway – Future West Access by	Loomis	DNE	-	-	-	DNE	-	-	-	Yes	-	-	-
25	Brace Road & Project Driveway	Loomis	DNE	-	-	-	DNE	-	-	-	DNE	-	-	-
26	Sierra College Boulevard & SR-193	Placer	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU
27	Sierra College Boulevard & English Colony Way	Placer	-	-	-	-	Yes	Yes	Yes	SU	Yes	Yes	-	-
28	Sierra College Boulevard & Delmar Avenue	Placer	Yes	Yes	-	-	Yes	Yes	-	-	-	-	-	-
29	Taylor Road & English Colony Way	Placer	-	-	-	-	-	Yes	Yes	SU	Yes	Yes	-	-
30	Taylor Road & Penryn Road (North)	Placer	-	-	-	-	-	-	-	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	Placer	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU	-	-	-	-
32	Taylor Road & Del Oro High School North Lot	Loomis	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
33	Taylor Road & Del Oro High School Drop-Off	Loomis	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
34	Taylor Road & Del Oro High School South Lot	Loomis	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
35	Taylor Road & Rippey Road	Loomis	-	-	-	-	-	-	-	-	Yes	Yes	-	-
36	Taylor Road & Webb Street	Loomis	Yes	Yes	Yes	SU	Yes	Yes	Yes	LTS	Yes	Yes	Yes	LTS
37	Brace Road & Project Driveway East	Loomis	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Project Impacts apply to all Project Driveway Options unless otherwise noted: 1: Under Project Driveway Option 1A only. 2: Under Project Driveway Option 1B only. 3: Under Project Driveway Option 1C only.

SU: Significant and Unavoidable Impact. LTS: Less Than Significant Impact DNE: Intersection does not exist under no Project conditions.

Source: Kittelson & Associates, 2019

Table 72: Study Area Queuing Results Summary

ID	Intersection	Jurisdiction	Existing Conditions				Cumulative Short Term Conditions				Cumulative Long Term Conditions			
			95th Percentile Queue>Storage?		Project Impact?	Significance after Mitigation?	95th Percentile Queue>Storage?		Project Impact?	Significance after Mitigation?	95th Percentile Queue>Storage?		Project Impact?	Significance after Mitigation?
			Existing	Existing + Project			Short Term	Short Term + Project			Long Term	Long Term + Project		
1	Taylor Road & King Road	Loomis	Yes	Yes	Yes	LTS	Yes	Yes	-	-	Yes	Yes	Yes	LTS
2	Taylor Road & Horseshoe Bar Road	Loomis	Yes	Yes	-	-	Yes	Yes	Yes	SU	Yes	Yes	Yes	LTS
3	Horseshoe Bar Road & I-80 Westbound Ramp	Caltrans	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	Caltrans	-	-	-	-	-	-	-	-	Yes	Yes	-	-
5	Barton Road & Brace Road	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
6	Sierra College Boulevard & Taylor Road	Loomis	Yes	Yes	-	-	Yes	Yes	Yes	LTS	Yes	Yes	Yes	LTS
7	Sierra College Boulevard & Brace Road	Loomis	-	Yes	Yes[2]	LTS	Yes	Yes	Yes[2]	LTS	Yes	Yes	Yes[2]	LTS
8	Sierra College Boulevard & Granite Drive	Rocklin	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU
9	Sierra College Boulevard & I-80 Westbound Ramps	Caltrans	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU
10	Sierra College Boulevard & I-80 Eastbound Ramps	Caltrans	-	-	-	-	Yes	Yes	-	-	Yes	Yes	-	-
11	Sierra College Boulevard & Schriber Way	Rocklin	-	-	-	-	Yes	Yes	-	-	Yes	Yes	-	-
12	Sierra College Boulevard & Bass Pro Drive-Dominguez Road	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
13	Sierra College Boulevard & Stadium Driveway	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
14	Sierra College Boulevard & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
15	Pacific Street & Dominguez Road-Delmar Avenue	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
16	Pacific Street & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
17	Granite Drive & Rocklin Road	Rocklin	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU	Yes	Yes	Yes	SU
18	I-80 Westbound Ramps & Rocklin Road	Caltrans	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
19	I-80 Eastbound Ramps & Rocklin Road	Caltrans	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
20	Aguilar Road & Rocklin Road	Rocklin	-	-	-	-	Yes	Yes	-	-	Yes	Yes	-	-
21	Sierra College Boulevard & Driveway South of Brace Road	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
22	Granite Drive & Dominguez Road	Rocklin	-	-	-	-	-	-	-	-	Yes	Yes	-	-
23	El Don Drive & Rocklin Road	Rocklin	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
24	Sierra College Boulevard & Project Driveway – Future West Access by Others	Loomis	DNE	-	-	-	DNE	Yes	Yes	LTS	Yes	Yes	Yes	LTS
25	Brace Road & Project Driveway	Loomis	DNE	-	-	-	DNE	-	-	-	DNE	-	-	-
26	Sierra College Boulevard & SR-193	Placer	-	-	-	-	Yes	Yes	Yes	SU	Yes	Yes	-	-
27	Sierra College Boulevard & English Colony Way	Placer	-	-	-	-	-	-	-	-	Yes	Yes	-	-
28	Sierra College Boulevard & Delmar Avenue	Placer	-	-	-	-	-	-	-	-	-	-	-	-
29	Taylor Road & English Colony Way	Placer	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
30	Taylor Road & Penryn Road (North)	Placer	-	-	-	-	-	-	-	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	Placer	-	-	-	-	-	-	-	-	Yes	Yes	-	-
32	Taylor Road & Del Oro High School North Lot	Loomis	-	-	-	-	-	-	-	-	Yes	Yes	-	-
33	Taylor Road & Del Oro High School Drop-Off	Loomis	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
34	Taylor Road & Del Oro High School South Lot	Loomis	Yes	Yes	-	-	Yes	Yes	-	-	Yes	Yes	-	-
35	Taylor Road & Rippey Road	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
36	Taylor Road & Webb Street	Loomis	-	-	-	-	-	-	-	-	-	-	-	-
37	Brace Road & Project Driveway East	Loomis	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Project Impacts apply to all Project Driveway Options unless otherwise noted: 1: Under Project Driveway Option 1A only. 2: Under Project Driveway Option 1B only. 3: Under Project Driveway Option 1C only.

SU: Significant and Unavoidable Impact. LTS: Less Than Significant Impact DNE: Intersection does not exist under no Project conditions.

Source: Kittelson & Associates, 2019

Table 73: CEQA Conclusions Summary

Intersection	Project Driveway Option(s) Requiring Mitigation	Type of Impact	Jurisdiction	Mitigation Measure	Significance After Mitigation
Existing plus Project Conditions					
1: Taylor Road & King Road	Options 1A, 1B, 1C	Queue (WBL)	Loomis	TR MM 1: Modify signal timing	Less than significant
7: Sierra College Boulevard & Brace Road	Option 1B	Queue (WBL)	Loomis	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Less than significant
8: Sierra College Boulevard & Granite Drive	Option 1A	Queue (NBT, SBT, EBL)	Rocklin	TR MM 1: Modify signal timing TR MM 4: Restripe intersection	Significant unavoidable*
8: Sierra College Boulevard & Granite Drive	Options 1B, 1C	Queue (WBL)	Rocklin	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Significant unavoidable*
9: Sierra College Boulevard & I-80 Westbound Ramps	Options 1A, 1B, 1C	Queue (SBT)	Caltrans	TR MM 1: Modify signal timing	Significant unavoidable*
17: Granite Drive & Rocklin Road	Options 1A, 1B, 1C	Queue (EBL)	Rocklin	TR MM 1: Modify signal timing	Significant unavoidable*
26: Sierra College Boulevard & SR-193	Options 1A, 1B, 1C	LOS	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
31: Taylor Road & Penryn Road (South)	Options 1A, 1B, 1C	LOS	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
36: Taylor Road & Webb Street	Options 1A, 1B, 1C	LOS	Loomis	TR MM 4: Restripe intersection	Significant unavoidable[1]
Cumulative Short Term plus Project Conditions					
2: Taylor Road & Horseshoe Bar Road	Options 1A, 1B, 1C	Queue (NBT, SBT)	Loomis	TR MM 1: Modify signal timing	Significant unavoidable[2]
6: Sierra College Boulevard & Taylor Road	Options 1A, 1B, 1C	LOS	Loomis	TR MM 1: Modify signal timing TR MM 3: Modify signal phasing TR MM 7: Add storage to turn pockets	Less than significant
		Queue (NBL, WBL)			Less than significant
7: Sierra College Boulevard & Brace Road	Option 1B	Queue (SBL, WBL)	Loomis	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Less than significant
8: Sierra College Boulevard & Granite Drive	Option 1A	Queue (NBT, SBT, EBL)	Rocklin	TR MM 2: Provide signal coordination TR MM 4: Restripe intersection	Significant unavoidable*

Intersection	Project Driveway Option(s) Requiring Mitigation	Type of Impact	Jurisdiction	Mitigation Measure	Significance After Mitigation
8: Sierra College Boulevard & Granite Drive	Options 1B, 1C	LOS	Rocklin	TR MM 2: Provide signal coordination TR MM 4: Restripe Intersection	Significant unavoidable*
		Queue (NBT, SBT, EBL, WBL)			Significant unavoidable*
9: Sierra College Boulevard & I-80 Westbound Ramps	Options 1A, 1B, 1C	LOS	Caltrans	TR MM 1: Modify signal timing TR MM 5: Add exclusive turn lanes	Significant unavoidable*
		Queue (SBT)			Significant unavoidable*
15: Pacific Street & Dominguez Road-Delmar Avenue	Options 1A, 1B, 1C	LOS	Rocklin	TR MM 1: Modify signal timing	Significant unavoidable*
17: Granite Drive & Rocklin Road	Options 1A, 1B, 1C	LOS/Queue (EBL)	Rocklin	TR MM 1: Modify signal timing	Significant unavoidable*
24: Sierra College Boulevard & Project Driveway	Option 1A	Queue (SBL)	Loomis	TR MM 1: Modify signal timing	Less than significant
26: Sierra College Boulevard & SR-193	Options 1A, 1B, 1C	LOS/Queue (NBR)	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
27: Sierra College Boulevard & English Colony Way	Options 1A, 1B, 1C	LOS	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
29: Taylor Road & English Colony Way	Options 1A, 1B, 1C	LOS	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
31: Taylor Road & Penryn Road (South)	Options 1A, 1B, 1C	LOS	Placer	TR MM 6: Provide a traffic signal	Significant unavoidable*
36: Taylor Road & Webb Street	Options 1A, 1B, 1C	LOS	Loomis	TR MM 4: Restripe Intersection	Less than significant
Cumulative Long Term plus Project Conditions					
1: Taylor Road & King Road	Options 1A, 1B, 1C	Queue (WBL)	Loomis	TR MM 1: Modify signal timing	Less than significant
2: Taylor Road & Horseshoe Bar Road	Options 1A, 1B, 1C	Queue (NBT)	Loomis	TR MM 1: Modify signal timing	Less than significant
6: Sierra College Boulevard & Taylor Road	Options 1A, 1B, 1C	LOS	Loomis	TR MM 1: Modify signal timing TR MM 3: Modify signal phasing	Less than significant
		Queue (NBL, WBL)			Less than significant
7: Sierra College Boulevard & Brace Road	Option 1B	Queue (SBL, WBL)	Loomis	TR MM 1: Modify signal timing TR MM 4: Restripe Intersection	Less than significant
8: Sierra College Boulevard & Granite Drive	Option 1A	LOS	Rocklin	TR MM 2: Provide signal coordination TR MM 4: Restripe Intersection	Significant unavoidable*
		Queue (NBT, SBT, EBL)			

Intersection	Project Driveway Option(s) Requiring Mitigation	Type of Impact	Jurisdiction	Mitigation Measure	Significance After Mitigation
8: Sierra College Boulevard & Granite Drive	Options 1B, 1C	Queue (NBT, SBT, WBL)	Rocklin	TR MM 2: Provide signal coordination TR MM 4: Restripe Intersection	Significant unavoidable*
9: Sierra College Boulevard & I-80 Westbound Ramps	Options 1A, 1B, 1C	Queue (SBT)	Caltrans	TR MM 1: Modify signal timing TR MM 5: Add exclusive turn lanes	Significant unavoidable[3]
17: Granite Drive & Rocklin Road	Options 1A, 1B, 1C	Queue (EBL)	Rocklin	TR MM 1: Modify signal timing	Significant unavoidable*
24: Sierra College Boulevard & Project Driveway	Option 1A	Queue (SBL)	Loomis	TR MM 2: Provide signal coordination	Less than significant
24: Sierra College Boulevard & Project Driveway	Options 1B, 1C	Queue (SBL)	Loomis	TR MM 7: Add storage to turn pockets	Less than significant
26: Sierra College Boulevard & SR-193	Options 1A, 1B, 1C	LOS	Placer	TR MM 1: Modify signal timing TR MM 5: Add exclusive turn lanes	Significant unavoidable*
36: Taylor Road & Webb Street	Options 1A, 1B, 1C	LOS	Loomis	TR MM 4: Restripe Intersection	Less than significant

Notes:
NB: northbound, SB: southbound, EB: eastbound, WD: westbound, L: left turn lane, T: through lane, R: right turn lane
*Though the mitigation measure improves the intersection operation to less than significant levels, the mitigation measures may be deemed infeasible or outside of the lead agency jurisdiction to implement.
[1]Temporary impact given this impact can be mitigated with the westbound right-turn mitigation measure under Short Term and Long Term conditions. Traffic volumes projected at intersection do not meet signal traffic warrants.

[2]The proposed mitigation does not reduce queues to No Project Conditions and additional geometric improvements are not feasible due to site constraints.

[3] The impact could not be mitigated to less than significant levels. A fourth southbound through lane may be needed to accommodate traffic volumes. The mitigation measures may be deemed infeasible or outside of the lead agency jurisdiction to implement.
Source: Kittelson & Associates, Inc. 2019

Appendix A: Traffic Count Data

Type of peak hour being reported: Intersection Peak

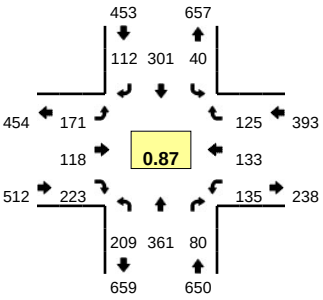
Method for determining peak hour: Total Entering Volume

LOCATION: Taylor Rd -- King Rd

CITY/STATE: Placer, CA

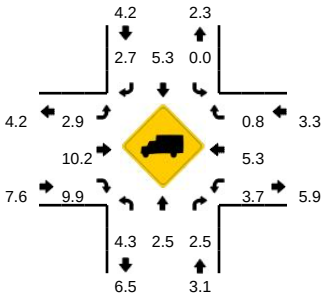
QC JOB #: 13963315

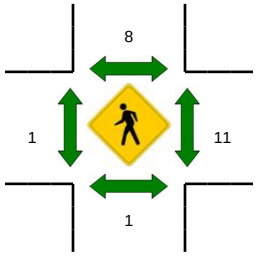
DATE: Wed, Nov 30 2016

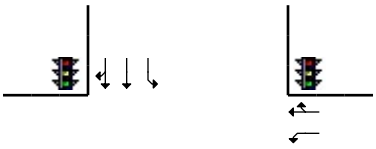


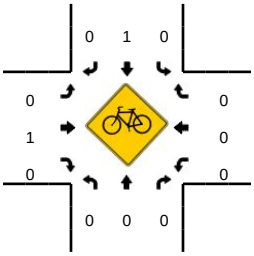
Peak-Hour: 7:15 AM -- 8:15 AM

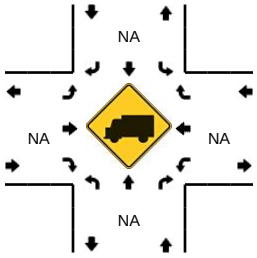
Peak 15-Min: 7:35 AM -- 7:50 AM

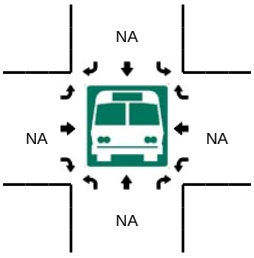












5-Min Count Period Beginning At	Taylor Rd (Northbound)				Taylor Rd (Southbound)				King Rd (Eastbound)				King Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	32	11	6	0	1	12	4	0	9	4	13	0	4	8	5	0	109	
7:05 AM	14	15	6	0	3	6	3	0	6	9	16	0	12	10	3	0	103	
7:10 AM	16	36	8	0	1	17	2	0	13	3	14	0	5	10	8	0	133	
7:15 AM	17	32	6	0	2	25	5	0	14	7	14	0	6	8	11	0	147	
7:20 AM	14	37	3	0	4	25	12	0	25	3	20	0	5	6	17	0	171	
7:25 AM	10	47	4	0	4	29	12	0	27	9	10	0	1	8	11	0	172	
7:30 AM	11	52	6	0	2	26	5	0	26	9	12	0	12	10	22	0	193	
7:35 AM	8	50	3	0	3	36	12	0	18	8	17	0	11	4	19	0	189	
7:40 AM	13	28	4	0	5	35	11	0	18	8	14	0	17	16	23	0	192	
7:45 AM	11	48	7	0	7	32	8	0	13	7	23	0	14	14	15	0	199	
7:50 AM	19	13	7	0	7	46	17	0	8	12	15	0	8	10	1	0	163	
7:55 AM	25	11	6	0	2	20	15	0	6	13	30	0	13	14	1	0	156	1927
8:00 AM	30	13	10	0	0	7	6	0	8	15	15	0	16	12	1	0	133	1951
8:05 AM	32	18	12	0	1	13	2	0	4	11	24	0	13	21	1	0	152	2000
8:10 AM	19	12	12	0	3	7	7	0	4	16	29	0	19	10	3	0	141	2008
8:15 AM	22	18	13	0	1	10	4	0	4	12	30	0	14	9	3	0	140	2001
8:20 AM	24	16	7	0	2	21	4	0	3	11	31	0	22	9	0	0	150	1980
8:25 AM	29	21	23	0	2	22	1	0	8	9	29	0	11	8	4	0	167	1975
8:30 AM	18	13	14	0	1	11	4	0	0	7	15	0	14	4	2	0	103	1885
8:35 AM	19	12	6	0	0	9	10	0	4	6	17	0	8	5	2	0	98	1794
8:40 AM	16	7	5	0	0	14	0	0	1	6	19	0	10	3	0	0	81	1683
8:45 AM	12	3	7	0	0	14	2	0	1	8	14	0	4	1	1	0	67	1551
8:50 AM	18	12	4	0	2	11	2	0	8	7	11	0	8	1	4	0	88	1476
8:55 AM	15	13	10	0	0	13	3	0	5	7	20	0	7	3	1	0	97	1417

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	128	504	56	0	60	412	124	0	196	92	216	0	168	136	228	0	2320
Heavy Trucks	8	8	0		0	8	0		0	8	32		4	4	0		72
Pedestrians		0				8				4				4			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Taylor Rd -- King Rd

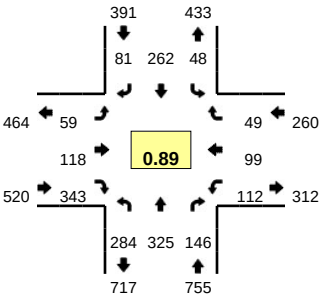
CITY/STATE: Placer, CA

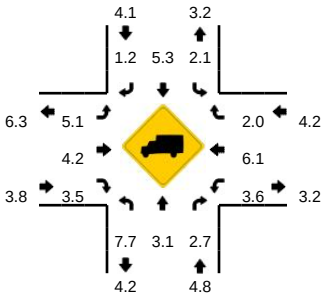
QC JOB #: 13963316

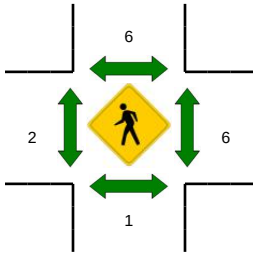
DATE: Wed, Nov 30 2016

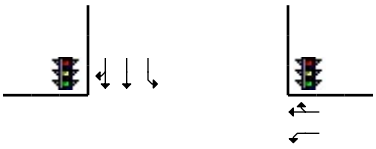
Peak-Hour: 4:00 PM -- 5:00 PM

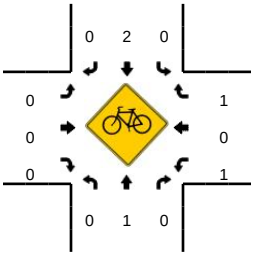
Peak 15-Min: 4:30 PM -- 4:45 PM

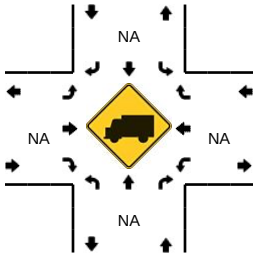


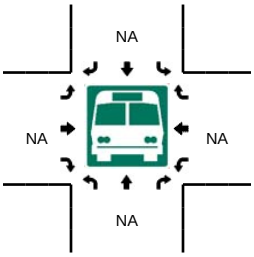












5-Min Count Period Beginning At	Taylor Rd (Northbound)				Taylor Rd (Southbound)				King Rd (Eastbound)				King Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	37	15	15	0	7	27	4	0	4	9	22	0	10	7	8	0	165	
4:05 PM	27	32	11	0	4	21	9	0	11	11	34	0	5	9	4	0	178	
4:10 PM	18	30	8	0	10	21	4	0	6	12	34	0	10	10	2	0	165	
4:15 PM	26	28	11	0	3	21	9	0	3	7	24	0	9	6	3	0	150	
4:20 PM	29	34	13	0	0	19	6	0	3	7	12	0	10	8	5	0	146	
4:25 PM	30	25	13	0	1	13	11	0	7	10	21	0	16	12	7	0	166	
4:30 PM	26	25	9	0	4	19	8	0	4	8	46	0	6	5	4	0	164	
4:35 PM	17	33	8	0	6	35	8	0	6	12	38	0	19	5	4	0	191	
4:40 PM	25	38	12	0	3	26	7	0	2	16	34	0	9	11	4	0	187	
4:45 PM	19	23	14	0	4	23	4	0	5	10	26	0	6	11	3	0	148	
4:50 PM	14	24	16	0	4	16	6	0	6	14	32	0	7	10	0	0	149	
4:55 PM	16	18	16	0	2	21	5	0	2	2	20	0	5	5	5	0	117	1926
5:00 PM	22	23	12	0	0	14	5	0	7	10	32	0	11	3	3	0	142	1903
5:05 PM	25	32	14	0	2	17	5	0	1	2	28	0	11	11	2	0	150	1875
5:10 PM	21	14	15	0	5	22	6	0	9	6	25	0	12	4	3	0	142	1852
5:15 PM	17	25	16	0	3	13	7	0	2	9	26	0	14	11	0	0	143	1845
5:20 PM	24	23	10	0	1	18	3	0	2	2	20	0	3	6	4	0	116	1815
5:25 PM	15	23	16	0	0	17	3	0	4	5	20	0	7	10	1	0	121	1770
5:30 PM	18	22	8	0	0	12	3	0	11	12	30	0	6	12	2	0	136	1742
5:35 PM	38	40	13	0	1	16	5	0	4	10	35	0	8	6	1	0	177	1728
5:40 PM	14	30	19	0	1	25	5	0	9	7	37	0	2	9	6	0	164	1705
5:45 PM	28	28	3	0	3	23	2	0	4	9	17	0	7	2	3	0	129	1686
5:50 PM	23	37	8	0	4	19	8	0	6	5	18	0	5	7	2	0	142	1679
5:55 PM	20	19	16	0	3	9	7	0	8	4	9	0	7	3	3	0	108	1670

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	272	384	116	0	52	320	92	0	48	144	472	0	136	84	48	0	2168
Heavy Trucks	24	24	0		0	16	4		0	8	16		12	8	0		112
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

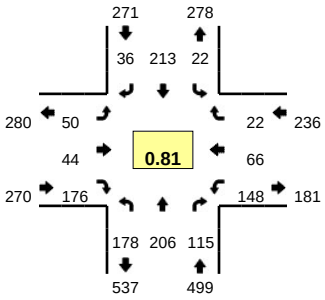
Method for determining peak hour: Total Entering Volume

LOCATION: B1 - Taylor†Rd -- King†Rd

CITY/STATE: Placer, CA

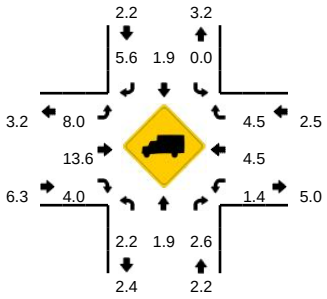
QC JOB #: 14088508

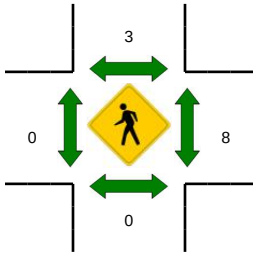
DATE: Sat, Jan 28 2017

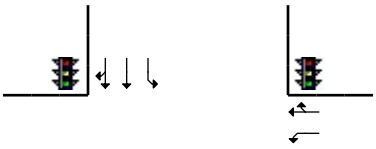


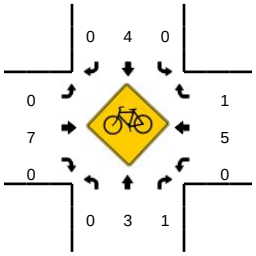
Peak-Hour: 11:30 AM -- 12:30 PM

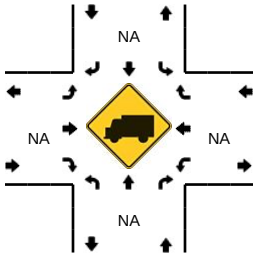
Peak 15-Min: 12:05 PM -- 12:20 PM

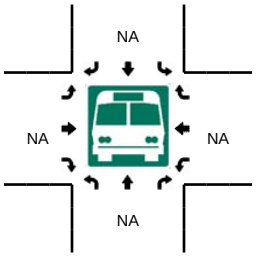












5-Min Count Period Beginning At	B1 - Taylor†Rd (Northbound)				B1 - Taylor†Rd (Southbound)				King†Rd (Eastbound)				King†Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	16	14	10	0	3	17	4	0	1	4	16	0	4	4	0	0	93	
11:05 AM	8	14	10	0	1	16	2	0	2	7	18	0	3	2	2	0	85	
11:10 AM	9	8	12	0	2	13	3	0	4	6	25	0	12	2	0	0	96	
11:15 AM	15	16	9	0	2	16	3	0	2	2	13	0	9	5	1	0	93	
11:20 AM	8	11	12	0	1	13	2	0	7	4	7	0	5	2	2	0	74	
11:25 AM	5	17	5	0	2	10	2	0	5	2	9	0	9	4	3	0	73	
11:30 AM	11	12	15	0	1	19	2	0	1	1	11	0	11	10	0	0	94	
11:35 AM	14	18	11	0	1	13	7	0	7	4	18	0	11	4	2	0	110	
11:40 AM	7	19	14	0	2	10	4	0	3	1	10	0	7	4	3	0	84	
11:45 AM	15	22	10	0	2	18	4	0	4	7	11	0	7	3	3	0	106	
11:50 AM	20	21	11	0	2	18	1	0	1	8	9	0	12	7	2	0	112	
11:55 AM	20	12	6	0	1	18	2	0	4	3	14	0	8	4	5	0	97	1117
12:00 PM	10	14	8	0	0	21	5	0	7	3	12	0	7	5	3	0	95	1119
12:05 PM	15	24	14	0	3	21	5	0	5	2	20	0	35	4	2	0	150	1184
12:10 PM	21	16	11	0	1	23	2	0	4	5	20	0	21	12	1	0	137	1225
12:15 PM	14	11	5	0	4	23	0	0	5	2	23	0	16	5	0	0	108	1240
12:20 PM	19	17	3	0	1	10	2	0	4	5	19	0	7	3	0	0	90	1256
12:25 PM	12	20	7	0	4	19	2	0	5	3	9	0	6	5	1	0	93	1276
12:30 PM	13	9	5	0	1	12	3	0	2	4	17	0	14	3	1	0	84	1266
12:35 PM	12	14	10	0	0	14	8	0	2	5	15	0	13	7	1	0	101	1257
12:40 PM	12	12	7	0	1	17	2	0	9	2	16	0	6	4	1	0	89	1262
12:45 PM	10	19	7	0	0	17	5	0	8	6	13	0	10	2	6	0	103	1259
12:50 PM	9	19	7	0	0	23	2	0	3	3	8	0	7	6	3	0	90	1237
12:55 PM	19	13	8	0	3	18	8	0	8	3	14	0	5	3	1	0	103	1243

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	200	204	120	0	32	268	28	0	56	36	252	0	288	84	12	0	1580
Heavy Trucks	4	4	0		0	4	4		8	4	4		0	4	0		36
Pedestrians		0				0				0				8			8
Bicycles	0	0	0		0	2	0		0	0	0		0	0	0		2
Railroad Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

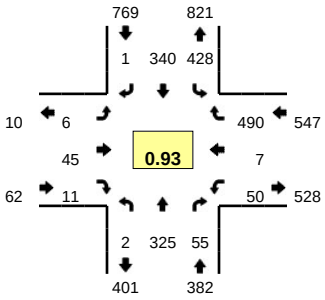
Type of peak hour being reported: Intersection Peak

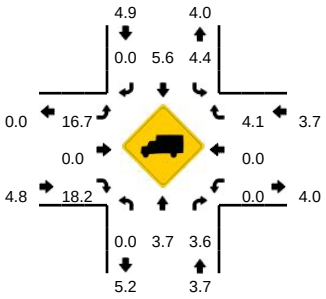
Method for determining peak hour: Total Entering Volume

LOCATION: Taylor Rd -- Horseshoe Bar Rd
CITY/STATE: Placer, CA

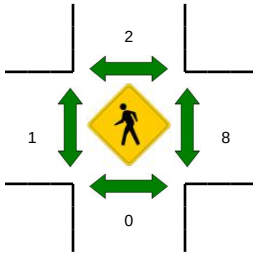
QC JOB #: 13963311
DATE: Thu, Nov 17 2016

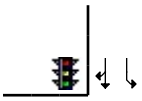
Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

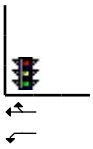


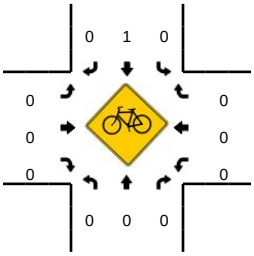


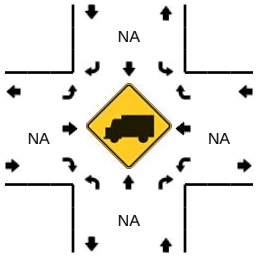
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

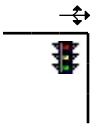


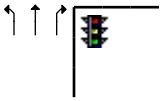


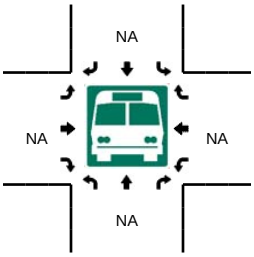












5-Min Count Period Beginning At	Taylor Rd (Northbound)				Taylor Rd (Southbound)				Horseshoe Bar Rd (Eastbound)				Horseshoe Bar Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	17	5	0	24	20	0	0	0	1	0	0	5	1	37	0	110	
7:05 AM	0	12	1	0	41	14	0	0	0	0	1	0	4	0	29	0	102	
7:10 AM	0	20	3	0	36	18	0	0	0	5	0	0	2	2	38	0	124	
7:15 AM	0	34	3	0	36	21	0	0	0	4	0	0	2	0	34	0	134	
7:20 AM	1	22	3	0	38	12	1	0	1	6	0	0	0	0	35	0	119	
7:25 AM	0	32	3	0	31	25	0	0	0	3	1	0	6	1	57	0	159	
7:30 AM	1	32	2	0	28	34	0	0	0	7	0	0	5	1	47	0	157	
7:35 AM	0	33	7	0	32	24	0	0	1	2	3	0	2	2	35	0	141	
7:40 AM	0	26	3	0	42	22	0	0	2	3	4	0	4	2	37	0	145	
7:45 AM	0	18	4	0	47	24	1	0	0	8	1	0	1	0	34	0	138	
7:50 AM	0	20	7	0	43	36	0	0	0	4	1	0	4	0	38	0	153	
7:55 AM	0	31	8	0	39	32	0	0	1	4	0	0	5	1	40	0	161	1643
8:00 AM	0	30	4	0	34	35	0	0	1	2	0	0	4	0	51	0	161	1694
8:05 AM	0	23	5	0	37	27	0	0	0	4	0	0	5	0	41	0	142	1734
8:10 AM	1	21	3	0	38	32	0	0	1	3	0	0	8	0	32	0	139	1749
8:15 AM	0	29	4	0	34	23	0	0	0	2	1	0	2	0	37	0	132	1747
8:20 AM	0	30	5	0	23	26	0	0	0	3	0	0	4	0	41	0	132	1760
8:25 AM	0	27	1	0	25	34	0	0	0	0	2	0	6	0	41	0	136	1737
8:30 AM	0	16	0	0	24	30	0	0	0	0	0	0	1	1	31	0	103	1683
8:35 AM	0	13	2	0	30	21	0	0	0	1	1	0	4	0	24	0	96	1638
8:40 AM	0	12	6	0	31	19	0	0	1	0	0	0	5	3	24	0	101	1594
8:45 AM	0	25	2	0	42	23	0	0	0	0	0	0	4	0	21	0	117	1573
8:50 AM	0	20	4	0	18	12	0	0	0	0	1	0	9	0	16	0	80	1500
8:55 AM	0	15	6	0	23	19	0	0	1	0	0	0	5	0	23	0	92	1431

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	324	76	0	464	412	0	0	8	40	4	0	52	4	516	0	1900
Heavy Trucks	0	12	0		16	24	0		4	0	0		0	0	28		84
Pedestrians		0				0				0				12			12
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

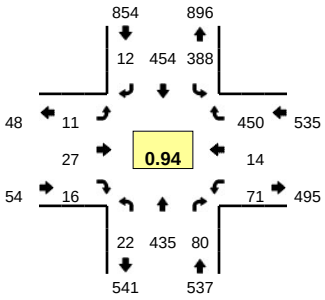
Type of peak hour being reported: Intersection Peak

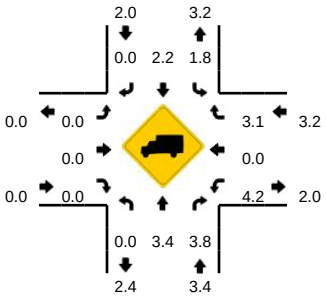
Method for determining peak hour: Total Entering Volume

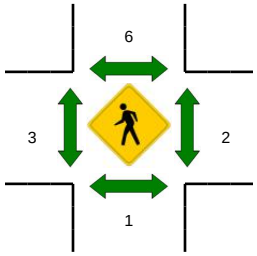
LOCATION: Taylor Rd -- Horseshoe Bar Rd
CITY/STATE: Placer, CA

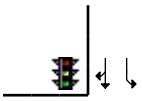
QC JOB #: 13963312
DATE: Thu, Nov 17 2016

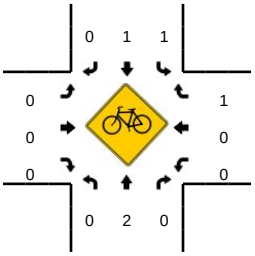
Peak-Hour: 4:20 PM -- 5:20 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

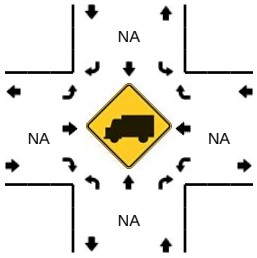


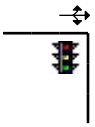


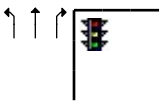


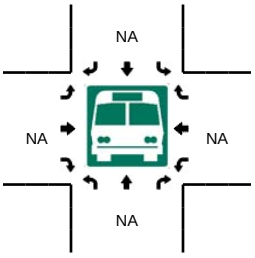












5-Min Count Period Beginning At	Taylor Rd (Northbound)				Taylor Rd (Southbound)				Horseshoe Bar Rd (Eastbound)				Horseshoe Bar Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	57	11	0	25	40	0	0	0	1	0	0	7	0	37	0	178	
4:05 PM	0	34	9	0	38	35	0	0	1	0	0	0	12	0	34	0	163	
4:10 PM	2	25	8	0	37	30	3	0	0	2	1	0	6	0	40	0	154	
4:15 PM	2	31	6	0	28	38	0	0	0	0	0	0	6	2	43	0	156	
4:20 PM	1	57	4	0	27	38	4	0	2	2	1	0	4	1	42	0	183	
4:25 PM	3	31	8	0	30	28	0	0	0	2	0	0	5	0	45	0	152	
4:30 PM	3	43	8	0	33	38	2	0	0	2	2	0	6	0	29	0	166	
4:35 PM	0	31	4	0	34	42	0	0	2	1	1	0	8	2	34	0	159	
4:40 PM	2	35	6	0	35	47	0	0	1	4	2	0	7	1	36	0	176	
4:45 PM	1	44	7	0	43	37	1	0	0	1	1	0	2	0	39	0	176	
4:50 PM	0	32	7	0	28	24	0	0	4	4	0	0	6	2	37	0	144	
4:55 PM	0	23	3	0	35	36	0	0	0	0	1	0	7	3	38	0	146	1953
5:00 PM	4	35	9	0	22	34	0	0	1	2	0	0	5	1	39	0	152	1927
5:05 PM	0	32	6	0	32	46	1	0	1	1	2	0	6	3	31	0	161	1925
5:10 PM	7	36	11	0	37	46	1	0	0	3	0	0	7	0	39	0	187	1958
5:15 PM	1	36	7	0	32	38	3	0	0	5	6	0	8	1	41	0	178	1980
5:20 PM	0	30	8	0	32	34	0	0	0	0	0	0	10	2	39	0	155	1952
5:25 PM	0	39	9	0	29	25	1	0	1	1	0	0	8	2	29	0	144	1944
5:30 PM	0	25	6	0	30	28	1	0	1	1	1	0	9	4	32	0	138	1916
5:35 PM	1	35	6	0	33	27	2	0	0	4	1	0	1	3	27	0	140	1897
5:40 PM	1	38	10	0	35	32	0	0	1	2	2	0	6	0	45	0	172	1893
5:45 PM	1	34	4	0	27	21	0	0	1	2	1	0	10	2	49	0	152	1869
5:50 PM	0	43	5	0	32	28	0	0	0	2	1	0	3	1	45	0	160	1885
5:55 PM	0	28	6	0	21	30	0	0	0	0	0	0	6	1	39	0	131	1870

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	416	96	0	404	520	20	0	4	36	32	0	84	16	444	0	2104
Heavy Trucks	0	16	8		0	16	0		0	0	0		4	0	28		72
Pedestrians		0				4				8				0			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: B2 - Taylor†Rd -- Horseshoe†Bar†Rd

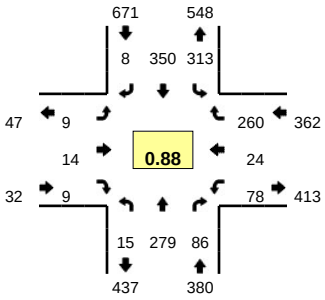
CITY/STATE: Loomis, CA

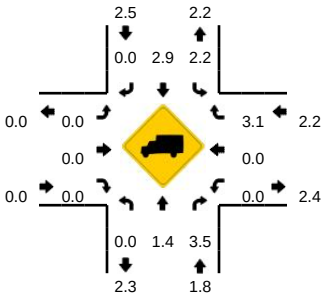
QC JOB #: 14088506

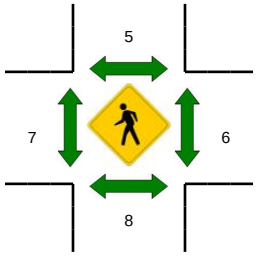
DATE: Sat, Jan 28 2017

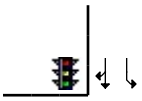
Peak-Hour: 12:00 PM -- 1:00 PM

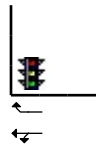
Peak 15-Min: 12:05 PM -- 12:20 PM

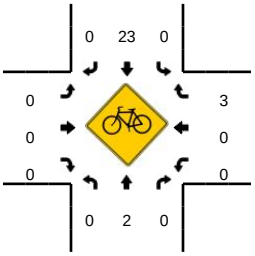


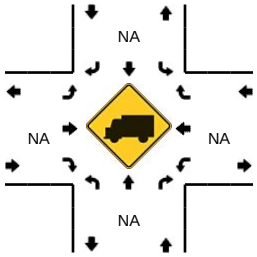


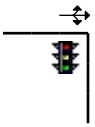


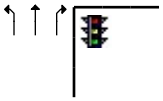


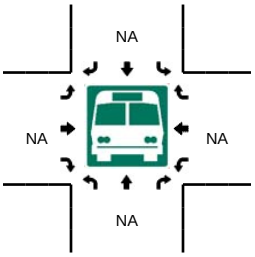












5-Min Count Period Beginning At	B2 - Taylor†Rd (Northbound)				B2 - Taylor†Rd (Southbound)				Horseshoe†Bar†Rd (Eastbound)				Horseshoe†Bar†Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	22	6	0	21	23	0	0	0	0	0	0	5	1	26	0	104	
11:05 AM	1	19	9	0	18	30	0	0	0	2	1	0	8	0	18	0	106	
11:10 AM	1	17	1	0	25	28	1	0	0	0	1	0	6	1	19	0	100	
11:15 AM	1	23	7	0	18	32	0	0	0	0	1	0	3	0	22	0	107	
11:20 AM	1	25	6	0	21	16	0	0	0	1	1	0	10	1	13	0	95	
11:25 AM	1	18	9	0	23	21	0	0	0	0	1	0	9	0	16	0	98	
11:30 AM	0	26	6	0	19	24	0	0	0	1	2	0	4	0	24	0	106	
11:35 AM	0	28	9	0	14	29	0	0	1	2	1	0	11	0	24	0	119	
11:40 AM	0	19	6	0	27	23	0	0	0	4	0	0	3	2	24	0	108	
11:45 AM	1	29	11	0	17	21	0	0	0	0	1	0	7	0	21	0	108	
11:50 AM	1	30	8	0	26	29	1	0	3	1	0	1	3	1	27	0	131	
11:55 AM	0	20	4	0	22	16	0	0	0	0	0	0	7	2	29	0	100	1282
12:00 PM	2	23	13	0	16	24	0	0	0	0	0	0	6	1	24	0	109	1287
12:05 PM	0	35	9	0	30	35	1	0	0	0	1	0	3	0	23	0	137	1318
12:10 PM	2	21	7	0	40	40	2	0	1	3	0	0	8	3	30	0	157	1375
12:15 PM	1	20	2	0	22	38	0	0	0	3	1	0	7	1	21	0	116	1384
12:20 PM	0	14	1	0	35	32	1	0	1	0	1	0	6	2	22	0	115	1404
12:25 PM	4	32	12	0	16	26	0	0	1	5	1	0	10	1	20	0	128	1434
12:30 PM	2	18	4	0	22	28	0	0	1	1	0	0	6	4	16	0	102	1430
12:35 PM	1	23	7	0	28	21	0	0	4	0	0	0	4	0	23	0	111	1422
12:40 PM	0	24	10	0	32	24	0	0	0	2	1	0	5	2	19	0	119	1433
12:45 PM	1	25	5	0	26	24	1	0	0	0	3	0	11	4	19	0	119	1444
12:50 PM	1	18	8	0	25	27	2	0	0	0	1	0	3	6	20	0	111	1424
12:55 PM	1	26	8	0	21	31	1	0	1	0	0	0	9	0	23	0	121	1445

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	304	72	0	368	452	12	0	4	24	8	0	72	16	296	0	1640
Heavy Trucks	0	0	0		4	0	0		0	0	0		0	0	8		12
Pedestrians		8				12				20				0			40
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Horseshoe Bar Rd -- I-80 WB Ramp

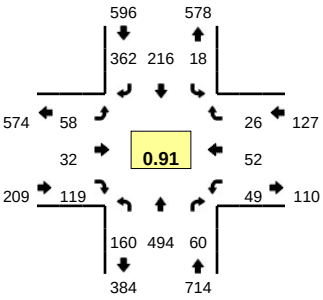
CITY/STATE: Placer, CA

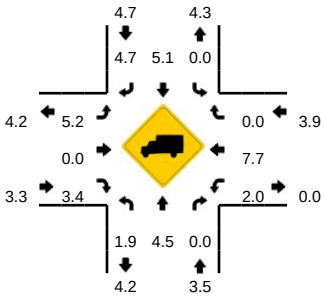
QC JOB #: 13963333

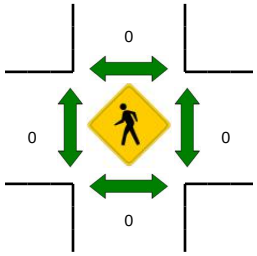
DATE: Thu, Nov 17 2016

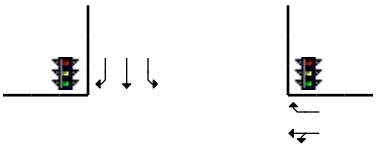
Peak-Hour: 7:15 AM -- 8:15 AM

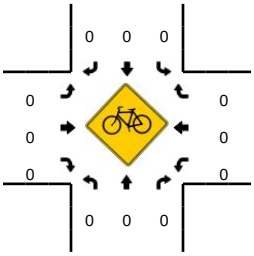
Peak 15-Min: 7:50 AM -- 8:05 AM

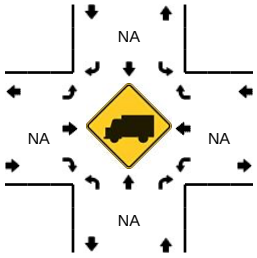


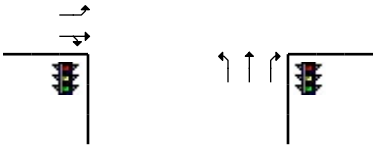


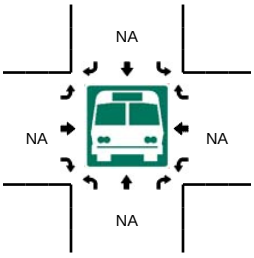












5-Min Count Period Beginning At	Horseshoe Bar Rd (Northbound)				Horseshoe Bar Rd (Southbound)				I-80 WB Ramp (Eastbound)				I-80 WB Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	11	42	3	0	2	6	26	0	3	2	4	0	3	0	0	0	102	
7:05 AM	9	32	3	0	2	15	28	0	5	2	8	0	2	2	1	0	109	
7:10 AM	6	33	4	0	0	9	30	0	4	4	13	0	1	2	1	0	107	
7:15 AM	9	35	6	0	1	19	33	0	2	3	11	0	1	4	2	0	126	
7:20 AM	13	38	4	0	3	14	33	0	1	4	10	0	4	1	1	0	126	
7:25 AM	12	54	3	0	1	21	28	0	9	4	9	0	2	3	1	0	147	
7:30 AM	17	51	8	0	2	20	26	0	5	1	11	0	6	4	3	0	154	
7:35 AM	11	47	6	0	1	16	32	0	3	4	11	0	4	7	4	0	146	
7:40 AM	16	22	2	0	1	26	22	0	4	0	10	0	5	6	4	0	118	
7:45 AM	17	39	6	0	2	17	37	0	4	2	5	0	4	6	2	0	141	
7:50 AM	15	43	7	0	0	29	37	0	7	3	16	0	7	2	1	0	167	
7:55 AM	11	45	3	0	2	13	36	0	6	4	7	0	3	8	2	0	140	1583
8:00 AM	13	54	5	0	2	15	26	0	7	4	12	0	4	3	1	0	146	1627
8:05 AM	12	36	6	0	2	17	25	0	5	2	2	0	6	4	5	0	122	1640
8:10 AM	14	30	4	0	1	9	27	0	5	1	15	0	3	4	0	0	113	1646
8:15 AM	18	36	6	0	0	19	15	0	4	1	6	0	3	1	2	0	111	1631
8:20 AM	17	42	7	0	1	12	21	0	9	2	7	0	7	5	2	0	132	1637
8:25 AM	11	35	7	0	1	9	17	0	9	7	9	0	2	4	2	0	113	1603
8:30 AM	16	34	1	0	1	12	23	0	5	2	6	0	6	7	3	0	116	1565
8:35 AM	9	25	5	0	3	14	26	0	6	2	10	0	5	4	0	0	109	1528
8:40 AM	12	31	10	0	2	8	21	0	5	3	6	0	1	2	4	0	105	1515
8:45 AM	10	23	6	0	1	16	30	0	3	2	9	0	5	4	0	0	109	1483
8:50 AM	10	17	1	0	1	11	24	0	5	3	6	0	1	4	1	0	84	1400
8:55 AM	6	19	4	0	4	4	15	0	5	1	7	0	3	7	3	0	78	1338

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	156	568	60	0	16	228	396	0	80	44	140	0	56	52	16	0	1812
Heavy Trucks	0	40	0		0	12	8		0	0	4		4	4	0		72
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Horseshoe Bar Rd -- I-80 WB Ramp

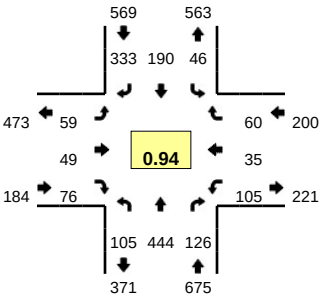
CITY/STATE: Placer, CA

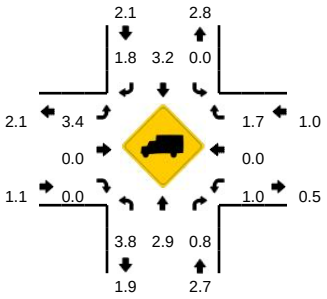
QC JOB #: 13963334

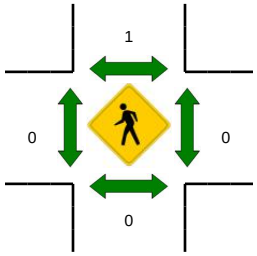
DATE: Thu, Nov 17 2016

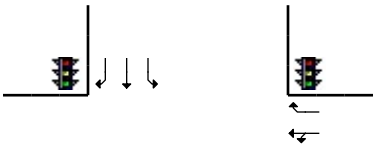
Peak-Hour: 4:45 PM -- 5:45 PM

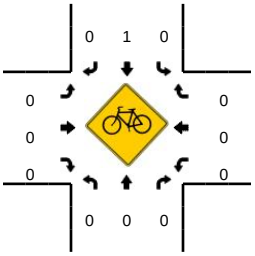
Peak 15-Min: 5:00 PM -- 5:15 PM

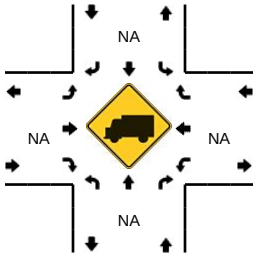


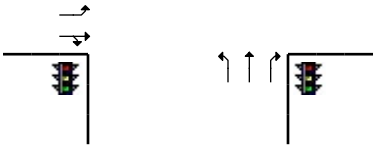


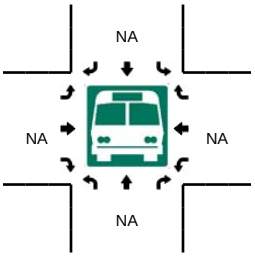












5-Min Count Period Beginning At	Horseshoe Bar Rd (Northbound)				Horseshoe Bar Rd (Southbound)				I-80 WB Ramp (Eastbound)				I-80 WB Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	9	32	6	0	1	21	20	0	6	2	7	0	3	5	5	0	117	
4:05 PM	11	28	7	0	1	20	23	0	9	5	5	0	12	3	4	0	128	
4:10 PM	8	37	12	0	3	24	38	0	4	8	6	0	3	3	9	0	155	
4:15 PM	6	40	7	0	4	12	20	0	7	1	6	0	8	5	3	0	119	
4:20 PM	12	47	8	0	4	16	26	0	3	1	10	0	3	2	7	0	139	
4:25 PM	3	31	13	0	4	13	24	0	8	4	3	0	11	7	8	0	129	
4:30 PM	6	21	11	0	2	14	32	0	5	6	4	0	7	3	6	0	117	
4:35 PM	7	37	12	0	3	14	28	0	2	3	6	0	6	2	4	0	124	
4:40 PM	8	34	12	0	1	18	27	0	6	1	3	0	13	4	4	0	131	
4:45 PM	10	43	12	0	4	19	37	0	4	4	5	0	11	2	3	0	154	
4:50 PM	8	34	3	0	2	13	32	0	5	5	4	0	14	1	5	0	126	
4:55 PM	8	40	13	0	4	12	33	0	3	6	4	0	6	5	8	0	142	1581
5:00 PM	4	33	21	0	1	15	25	0	4	2	4	0	7	3	6	0	125	1589
5:05 PM	13	29	18	0	6	17	32	0	6	3	6	0	9	3	6	0	148	1609
5:10 PM	14	45	8	0	4	22	31	0	4	1	15	0	7	3	4	0	158	1612
5:15 PM	5	28	6	0	5	17	25	0	4	6	4	0	5	2	7	0	114	1607
5:20 PM	4	39	10	0	5	14	29	0	5	4	9	0	10	2	5	0	136	1604
5:25 PM	7	32	9	0	3	16	25	0	9	8	9	0	6	6	2	0	132	1607
5:30 PM	10	35	12	0	4	12	22	0	7	4	5	0	8	5	6	0	130	1620
5:35 PM	6	30	6	0	3	19	21	0	4	3	5	0	12	2	4	0	115	1611
5:40 PM	16	56	8	0	5	14	21	0	4	3	6	0	10	1	4	0	148	1628
5:45 PM	4	43	14	0	3	14	25	0	3	6	3	0	9	4	7	0	135	1609
5:50 PM	16	41	13	0	4	10	23	0	3	4	3	0	6	4	3	0	130	1613
5:55 PM	5	35	17	0	6	10	9	0	7	6	6	0	9	4	5	0	119	1590

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	124	428	188	0	44	216	352	0	56	24	100	0	92	36	64	0	1724
Heavy Trucks	12	28	4		0	4	4		4	0	0		0	0	4		60
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

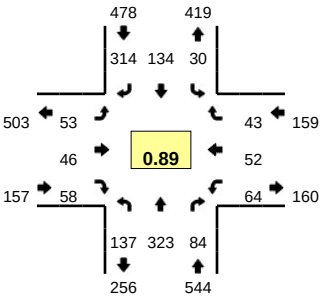
LOCATION: B3 - Horseshoe Bar Rd -- I-80†WB†Ramp

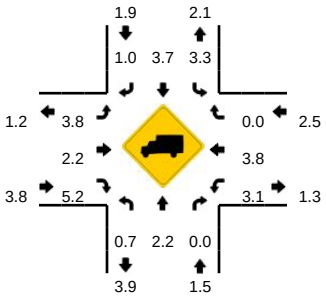
QC JOB #: 14088517

CITY/STATE: Placer, CA

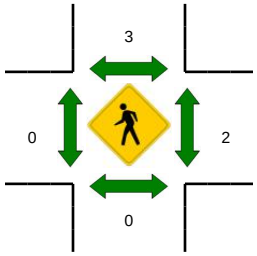
DATE: Sat, Jan 28 2017

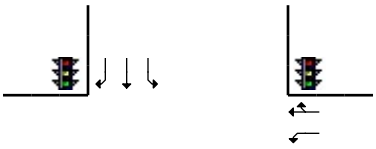
Peak-Hour: 11:50 AM -- 12:50 PM
Peak 15-Min: 12:10 PM -- 12:25 PM

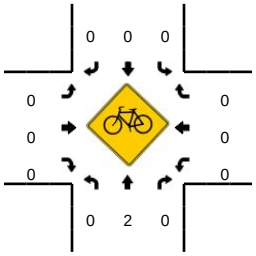


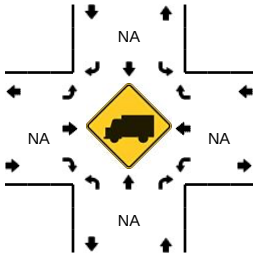


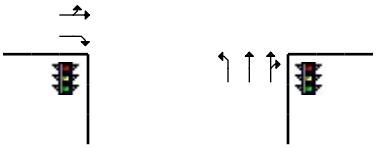
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

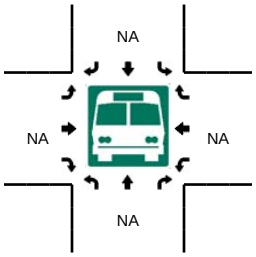












5-Min Count Period Beginning At	B3 - Horseshoe Bar Rd (Northbound)				B3 - Horseshoe Bar Rd (Southbound)				I-80†WB†Ramp (Eastbound)				I-80†WB†Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	7	17	5	0	2	8	16	0	5	3	9	0	3	2	8	0	85	
11:05 AM	13	21	4	0	1	17	14	0	6	4	4	0	5	2	2	0	93	
11:10 AM	10	26	7	0	3	7	17	0	4	4	8	0	3	8	2	0	99	
11:15 AM	8	24	7	0	1	5	15	0	8	4	4	0	6	2	1	0	85	
11:20 AM	12	15	8	0	3	10	20	0	2	3	3	0	2	6	3	0	87	
11:25 AM	4	28	11	0	2	10	12	0	5	3	5	0	4	6	4	0	94	
11:30 AM	17	21	4	0	3	9	24	0	3	7	5	0	8	4	5	0	110	
11:35 AM	12	27	9	0	1	14	12	0	1	4	5	0	4	3	4	0	96	
11:40 AM	7	21	11	0	7	12	17	0	1	3	2	0	0	4	8	0	93	
11:45 AM	9	20	9	0	2	18	17	0	4	4	5	0	5	3	6	0	102	
11:50 AM	15	43	6	0	4	13	30	0	3	2	6	0	5	5	5	0	137	
11:55 AM	9	40	6	0	4	7	21	0	5	5	0	0	4	4	4	0	109	1190
12:00 PM	10	19	10	0	3	15	20	0	7	5	9	0	6	6	4	0	114	1219
12:05 PM	11	16	6	0	1	11	25	0	4	3	3	0	7	2	1	0	90	1216
12:10 PM	18	26	4	0	4	13	39	0	7	2	6	0	6	4	4	0	133	1250
12:15 PM	20	32	9	0	4	5	26	0	3	3	5	0	7	5	4	0	123	1288
12:20 PM	9	26	7	0	2	6	39	0	7	6	5	0	4	4	3	0	118	1319
12:25 PM	9	23	5	0	1	8	26	0	5	1	7	0	3	4	6	0	98	1323
12:30 PM	5	15	9	0	1	17	25	0	2	6	0	0	3	5	5	0	93	1306
12:35 PM	7	23	7	0	2	13	21	0	5	4	6	0	7	4	3	0	102	1312
12:40 PM	10	29	10	0	3	19	19	0	1	5	8	0	5	5	1	0	115	1334
12:45 PM	14	31	5	0	1	7	23	0	4	4	3	0	7	4	3	0	106	1338
12:50 PM	12	21	8	0	3	12	19	0	6	5	4	0	7	6	3	0	106	1307
12:55 PM	8	32	7	0	3	7	20	0	4	1	4	0	1	7	6	0	100	1298

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	188	336	80	0	40	96	416	0	68	44	64	0	68	52	44	0	1496
Heavy Trucks	4	4	0		0	0	4		0	0	4		4	4	0		24
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Horseshoe Bar Rd -- I-80 EB Ramp

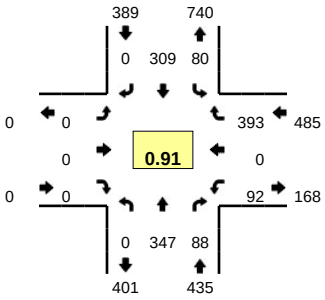
QC JOB #: 13963335

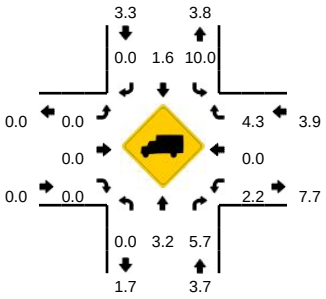
CITY/STATE: Loomis, CA

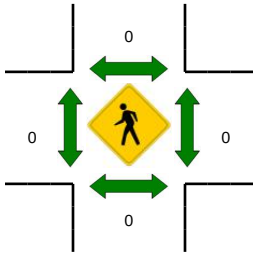
DATE: Thu, Nov 17 2016

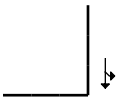
Peak-Hour: 7:25 AM -- 8:25 AM

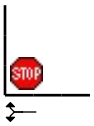
Peak 15-Min: 7:50 AM -- 8:05 AM

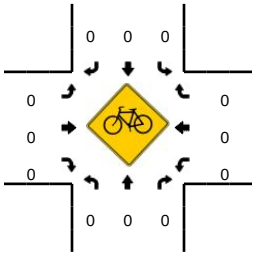


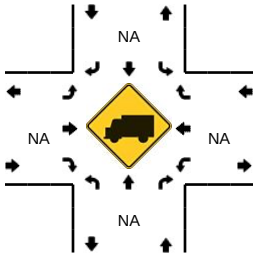


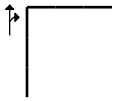


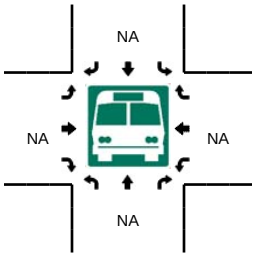












5-Min Count Period Beginning At	Horseshoe Bar Rd (Northbound)				Horseshoe Bar Rd (Southbound)				I-80 EB Ramp (Eastbound)				I-80 EB Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	17	6	0	2	11	0	0	0	0	0	0	1	0	28	0	65	
7:05 AM	0	17	0	0	4	21	0	0	0	0	0	0	1	0	25	0	68	
7:10 AM	0	18	4	0	4	17	0	0	0	0	0	0	3	0	29	0	75	
7:15 AM	0	20	8	0	5	26	0	0	0	0	0	0	3	0	31	0	93	
7:20 AM	0	29	10	0	9	20	0	0	0	0	0	0	1	0	30	0	99	
7:25 AM	0	30	2	0	9	26	0	0	0	0	0	0	7	0	35	0	109	
7:30 AM	0	36	6	0	10	26	0	0	0	0	0	0	4	0	48	0	130	
7:35 AM	0	23	7	0	11	21	0	0	0	0	0	0	5	0	33	0	100	
7:40 AM	0	26	10	0	11	31	0	0	0	0	0	0	6	0	21	0	105	
7:45 AM	0	27	11	0	4	23	0	0	0	0	0	0	11	0	31	0	107	
7:50 AM	0	25	11	0	9	44	0	0	0	0	0	0	9	0	36	0	134	
7:55 AM	0	35	7	0	1	22	0	0	0	0	0	0	11	0	37	0	113	1198
8:00 AM	0	25	8	0	3	28	0	0	0	0	0	0	8	0	41	0	113	1246
8:05 AM	0	28	11	0	7	18	0	0	0	0	0	0	14	0	25	0	103	1281
8:10 AM	0	29	5	0	5	24	0	0	0	0	0	0	5	0	20	0	88	1294
8:15 AM	0	29	2	0	4	25	0	0	0	0	0	0	4	0	29	0	93	1294
8:20 AM	0	34	8	0	6	21	0	0	0	0	0	0	8	0	37	0	114	1309
8:25 AM	0	22	11	0	3	17	0	0	0	0	0	0	8	0	31	0	92	1292
8:30 AM	0	21	9	0	8	15	0	0	0	0	0	0	4	0	23	0	80	1242
8:35 AM	0	19	6	0	11	18	0	0	0	0	0	0	3	0	19	0	76	1218
8:40 AM	0	29	5	0	3	11	0	0	0	0	0	0	4	0	27	0	79	1192
8:45 AM	0	17	5	0	8	23	0	0	0	0	0	0	7	0	22	0	82	1167
8:50 AM	0	15	3	0	4	14	0	0	0	0	0	0	6	0	12	0	54	1087
8:55 AM	0	13	5	0	1	13	0	0	0	0	0	0	5	0	16	0	53	1027

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	340	104	0	52	376	0	0	0	0	0	0	112	0	456	0	1440
Heavy Trucks	0	20	8		4	8	0		0	0	0		0	0	16		56
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Horseshoe Bar Rd -- I-80 EB Ramp

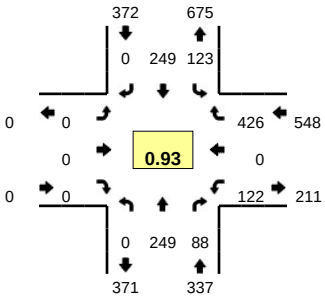
CITY/STATE: Loomis, CA

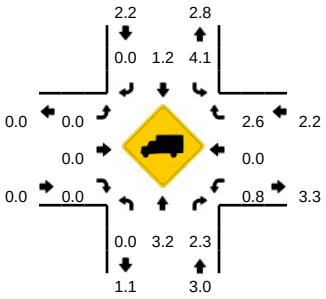
QC JOB #: 13963336

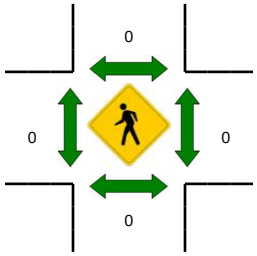
DATE: Thu, Nov 17 2016

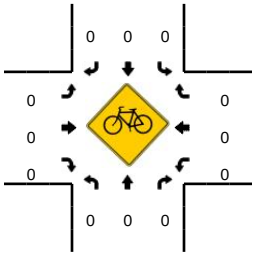
Peak-Hour: 4:45 PM -- 5:45 PM

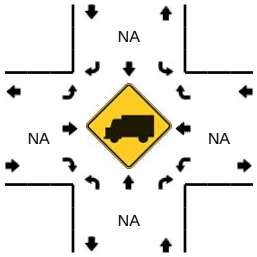
Peak 15-Min: 5:30 PM -- 5:45 PM

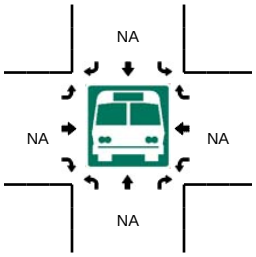












5-Min Count Period Beginning At	Horseshoe Bar Rd (Northbound)				Horseshoe Bar Rd (Southbound)				I-80 EB Ramp (Eastbound)				I-80 EB Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	11	8	0	12	18	0	0	0	0	0	0	8	0	33	1	91	
4:05 PM	0	21	7	0	13	27	0	0	0	0	0	0	8	0	31	0	107	
4:10 PM	0	18	13	0	8	25	0	0	0	0	0	0	10	0	38	0	112	
4:15 PM	0	19	5	0	7	17	0	0	0	0	0	0	8	0	37	0	93	
4:20 PM	0	22	5	0	9	22	0	0	0	0	0	0	7	0	37	0	102	
4:25 PM	0	17	8	0	16	14	0	0	0	0	0	0	11	0	33	0	99	
4:30 PM	0	15	8	0	8	17	0	0	0	0	0	0	10	0	28	0	86	
4:35 PM	0	22	9	0	7	19	0	0	0	0	0	0	6	0	31	0	94	
4:40 PM	0	23	7	0	11	25	0	0	0	0	0	0	16	0	34	0	116	
4:45 PM	0	24	8	0	8	24	0	0	0	0	0	0	12	0	33	0	109	
4:50 PM	0	15	4	0	10	23	0	0	0	0	0	0	12	0	36	0	100	
4:55 PM	0	25	14	0	11	12	0	0	0	0	0	0	11	0	36	0	109	1218
5:00 PM	0	19	5	0	9	17	0	0	0	0	0	0	7	0	43	0	100	1227
5:05 PM	0	23	8	0	11	22	0	0	0	0	0	0	8	0	35	0	107	1227
5:10 PM	0	22	6	0	9	35	0	0	0	0	0	0	13	0	35	0	120	1235
5:15 PM	0	11	3	0	13	10	0	0	0	0	0	0	8	0	29	0	74	1216
5:20 PM	0	17	6	0	14	20	0	0	0	0	0	0	10	0	38	0	105	1219
5:25 PM	0	26	9	0	10	21	0	0	0	0	0	0	9	0	21	0	96	1216
5:30 PM	0	22	11	0	8	19	0	0	0	0	0	0	15	0	40	0	115	1245
5:35 PM	0	16	3	0	9	27	0	0	0	0	0	0	5	0	33	0	93	1244
5:40 PM	0	29	11	0	11	19	0	0	0	0	0	0	12	0	47	0	129	1257
5:45 PM	0	12	9	0	9	17	0	0	0	0	0	0	9	0	49	0	105	1253
5:50 PM	0	29	4	0	5	14	0	0	0	0	0	0	9	0	42	0	103	1256
5:55 PM	0	15	4	0	6	17	0	0	0	0	0	0	15	0	44	0	101	1248

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	268	100	0	112	260	0	0	0	0	0	0	128	0	480	0	1348
Heavy Trucks	0	0	0		8	0	0		0	0	0		0	0	12		20
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: B4 - Horseshoe Bar Rd -- I-80†EB†Ramp

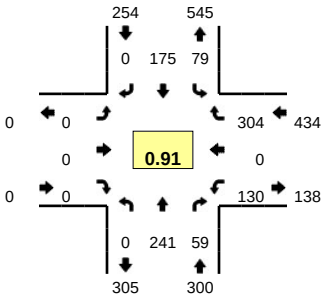
CITY/STATE: Placer, CA

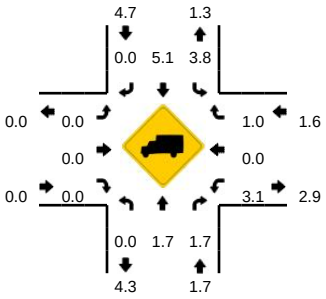
QC JOB #: 14088518

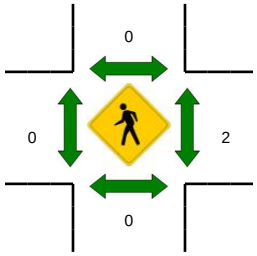
DATE: Sat, Jan 28 2017

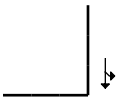
Peak-Hour: 11:50 AM -- 12:50 PM

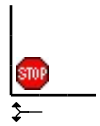
Peak 15-Min: 12:35 PM -- 12:50 PM

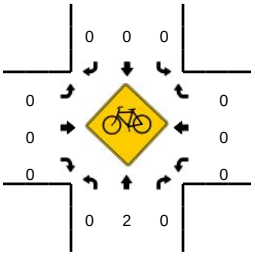


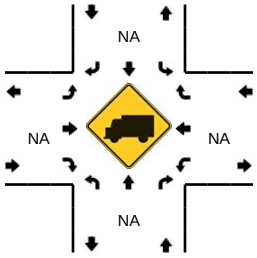


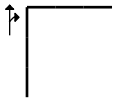


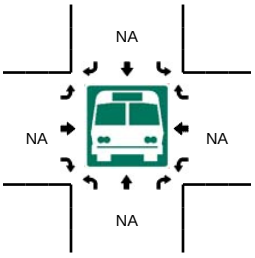












5-Min Count Period Beginning At	B4 - Horseshoe Bar Rd (Northbound)				B4 - Horseshoe Bar Rd (Southbound)				I-80†EB†Ramp (Eastbound)				I-80†EB†Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	16	3	0	3	16	0	0	0	0	0	0	6	0	12	0	56	
11:05 AM	0	16	6	0	8	21	0	0	0	0	0	0	6	0	20	0	77	
11:10 AM	0	15	8	0	6	10	0	0	0	0	0	0	13	0	30	0	82	
11:15 AM	0	19	7	0	5	12	0	0	0	0	0	0	7	0	23	0	73	
11:20 AM	0	14	6	0	5	8	0	0	0	0	0	0	6	0	17	0	56	
11:25 AM	0	16	5	0	4	17	0	0	0	0	0	0	9	0	28	0	79	
11:30 AM	0	24	4	0	12	9	0	0	0	0	0	0	5	0	19	0	73	
11:35 AM	0	18	3	0	10	11	0	0	0	0	0	0	7	0	29	0	78	
11:40 AM	0	13	6	0	2	12	0	0	0	0	0	0	10	0	26	0	69	
11:45 AM	0	17	5	0	9	18	0	0	0	0	0	0	11	0	28	0	88	
11:50 AM	0	25	5	0	9	15	0	0	0	0	0	0	9	0	37	0	100	
11:55 AM	0	19	2	0	4	7	0	0	0	0	0	0	9	0	36	0	77	908
12:00 PM	0	14	6	0	8	21	0	0	0	0	0	0	8	0	26	0	83	935
12:05 PM	0	22	3	0	10	9	0	0	0	0	0	0	6	0	19	0	69	927
12:10 PM	0	19	3	0	3	26	0	0	0	0	0	0	13	0	20	0	84	929
12:15 PM	0	31	8	0	4	12	0	0	0	0	0	0	9	0	34	0	98	954
12:20 PM	0	23	3	0	4	10	0	0	0	0	0	0	12	0	16	0	68	966
12:25 PM	0	20	4	0	7	11	0	0	0	0	0	0	7	0	17	0	66	953
12:30 PM	0	12	7	0	10	11	0	0	0	0	0	0	12	0	21	0	73	953
12:35 PM	0	11	6	0	11	14	0	0	0	0	0	0	13	0	22	0	77	952
12:40 PM	0	22	3	0	5	25	0	0	0	0	0	0	17	0	29	0	101	984
12:45 PM	0	23	9	0	4	14	0	0	0	0	0	0	15	0	27	0	92	988
12:50 PM	0	15	3	0	3	19	0	0	0	0	0	0	13	0	26	0	79	967
12:55 PM	0	15	4	0	4	7	0	0	0	0	0	0	16	0	34	0	80	970

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	224	72	0	80	212	0	0	0	0	0	0	180	0	312	0	1080
Heavy Trucks	0	0	4		0	4	0		0	0	0		4	0	8		20
Pedestrians		0				0				0				8			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Barton Rd -- Brace Rd

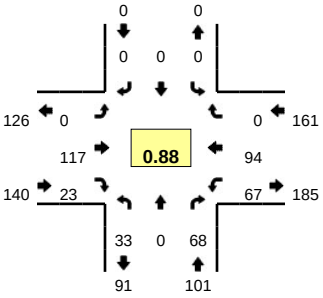
CITY/STATE: Loomis, CA

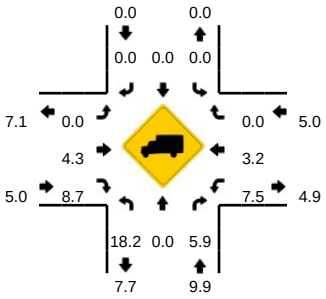
QC JOB #: 13963313

DATE: Thu, Nov 17 2016

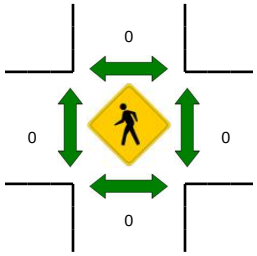
Peak-Hour: 7:25 AM -- 8:25 AM

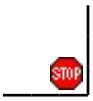
Peak 15-Min: 7:50 AM -- 8:05 AM

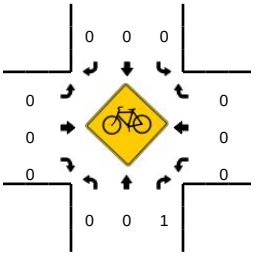


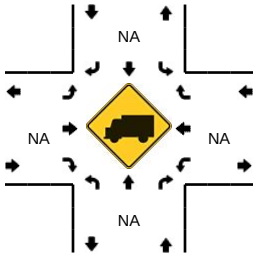


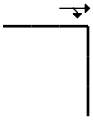
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

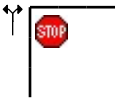


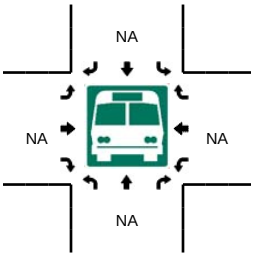












5-Min Count Period Beginning At	Barton Rd (Northbound)				Barton Rd (Southbound)				Brace Rd (Eastbound)				Brace Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	0	5	0	0	0	0	0	0	3	1	0	3	6	0	0	19	
7:05 AM	0	0	4	0	0	0	0	0	0	5	1	0	3	2	0	0	15	
7:10 AM	4	0	4	0	0	0	0	0	0	7	0	0	6	3	0	0	24	
7:15 AM	0	0	6	0	0	0	0	0	0	5	3	0	3	4	0	0	21	
7:20 AM	3	0	7	0	0	0	0	0	0	10	0	0	4	2	0	0	26	
7:25 AM	3	0	4	1	0	0	0	0	0	8	2	0	7	7	0	0	32	
7:30 AM	3	0	11	0	0	0	0	0	0	10	1	0	9	3	0	0	37	
7:35 AM	2	0	6	0	0	0	0	0	0	8	2	0	5	5	0	0	28	
7:40 AM	2	0	8	0	0	0	0	0	0	15	1	0	4	9	0	0	39	
7:45 AM	2	0	7	0	0	0	0	0	0	5	2	0	5	11	0	0	32	
7:50 AM	4	0	7	0	0	0	0	0	0	16	2	0	7	6	0	0	42	
7:55 AM	6	0	5	0	0	0	0	0	0	10	2	0	5	7	0	0	35	350
8:00 AM	2	0	7	0	0	0	0	0	0	10	1	0	6	11	0	0	37	368
8:05 AM	3	0	1	0	0	0	0	0	0	8	2	0	7	5	0	0	26	379
8:10 AM	2	0	3	0	0	0	0	0	0	11	3	0	7	7	0	0	33	388
8:15 AM	2	0	3	0	0	0	0	0	0	5	1	0	4	13	0	0	28	395
8:20 AM	1	0	6	0	0	0	0	0	0	11	4	0	1	10	0	0	33	402
8:25 AM	2	0	2	0	0	0	0	0	0	13	0	0	8	7	0	0	32	402
8:30 AM	4	0	4	0	0	0	0	0	0	4	1	0	5	9	0	0	27	392
8:35 AM	1	0	2	0	0	0	0	0	0	2	4	0	4	11	0	0	24	388
8:40 AM	1	0	2	0	0	0	0	0	0	5	0	0	4	9	0	0	21	370
8:45 AM	2	0	3	0	0	0	0	0	0	8	0	0	8	6	0	0	27	365
8:50 AM	2	0	4	0	0	0	0	0	0	6	4	0	8	5	0	0	29	352
8:55 AM	1	0	3	0	0	0	0	0	0	6	1	0	8	7	0	0	26	343

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	0	76	0	0	0	0	0	0	144	20	0	72	96	0	0	456
Heavy Trucks	8	0	8		0	0	0		0	0	4		4	0	0		24
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Barton Rd -- Brace Rd

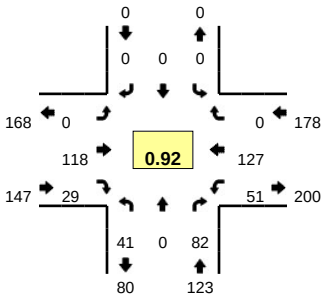
CITY/STATE: Loomis, CA

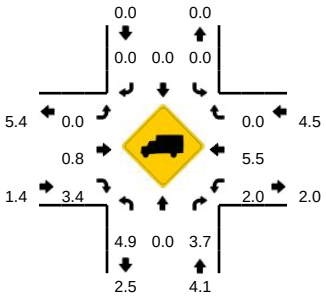
QC JOB #: 13963314

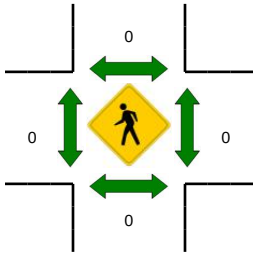
DATE: Thu, Nov 17 2016

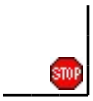
Peak-Hour: 4:05 PM -- 5:05 PM

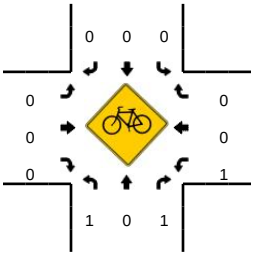
Peak 15-Min: 4:30 PM -- 4:45 PM

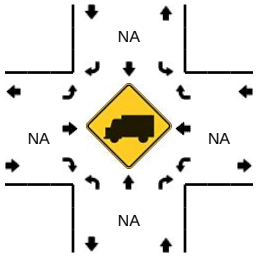


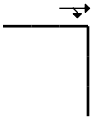


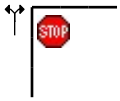


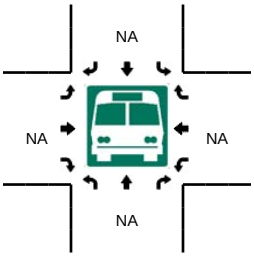












5-Min Count Period Beginning At	Barton Rd (Northbound)				Barton Rd (Southbound)				Brace Rd (Eastbound)				Brace Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	0	3	0	0	0	0	0	0	12	0	0	4	7	0	0	28	
4:05 PM	3	0	9	0	0	0	0	0	0	7	0	0	5	11	0	0	35	
4:10 PM	0	0	7	0	0	0	0	0	0	5	3	0	5	18	0	0	38	
4:15 PM	7	0	8	0	0	0	0	0	0	3	4	0	3	10	0	0	35	
4:20 PM	5	0	6	0	0	0	0	0	0	14	3	0	3	8	0	0	39	
4:25 PM	4	0	3	0	0	0	0	0	0	7	1	0	4	13	0	0	32	
4:30 PM	2	0	5	0	0	0	0	0	0	15	2	0	0	14	0	0	38	
4:35 PM	3	0	14	0	0	0	0	0	0	9	1	0	7	15	0	0	49	
4:40 PM	2	0	6	0	0	0	0	0	0	10	5	0	4	8	0	0	35	
4:45 PM	4	0	6	0	0	0	0	0	0	11	0	0	6	10	0	0	37	
4:50 PM	4	0	7	0	0	0	0	0	0	15	2	0	8	9	0	0	45	
4:55 PM	2	0	3	0	0	0	0	0	0	10	4	0	2	4	0	0	25	436
5:00 PM	5	0	8	0	0	0	0	0	0	12	4	0	4	7	0	0	40	448
5:05 PM	4	0	2	0	0	0	0	0	0	11	2	0	4	9	0	0	32	445
5:10 PM	2	0	6	0	0	0	0	0	0	8	2	0	8	15	0	0	41	448
5:15 PM	2	0	4	0	0	0	0	0	0	9	0	0	4	9	0	0	28	441
5:20 PM	4	0	4	0	0	0	0	0	0	10	3	0	5	9	0	0	35	437
5:25 PM	3	0	6	0	0	0	0	0	0	12	4	0	6	7	0	0	38	443
5:30 PM	3	0	6	0	0	0	0	0	0	7	1	0	6	6	0	0	29	434
5:35 PM	3	0	8	0	0	0	0	0	0	11	2	0	8	7	0	0	39	424
5:40 PM	1	0	8	0	0	0	0	0	0	7	1	0	8	9	0	0	34	423
5:45 PM	2	0	3	0	0	0	0	0	0	8	0	0	4	8	0	0	25	411
5:50 PM	3	0	1	0	0	0	0	0	0	8	0	0	4	6	0	0	22	388
5:55 PM	3	0	5	0	0	0	0	0	0	9	0	0	6	3	0	0	26	389

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	0	100	0	0	0	0	0	0	136	32	0	44	148	0	0	488
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	8	0		12
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

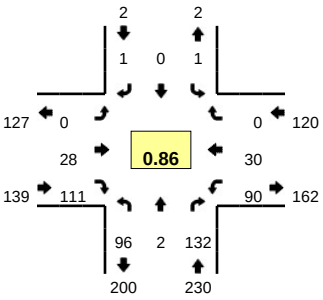
LOCATION: B5 - Barton†Rd -- Brace†Rd

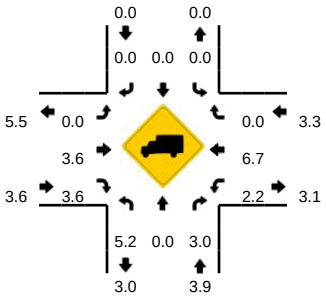
CITY/STATE: Placer, CA

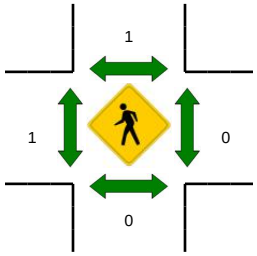
QC JOB #: 14088507

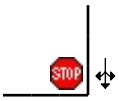
DATE: Sat, Jan 28 2017

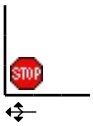
Peak-Hour: 12:00 PM -- 1:00 PM
Peak 15-Min: 12:40 PM -- 12:55 PM

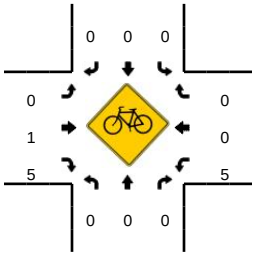


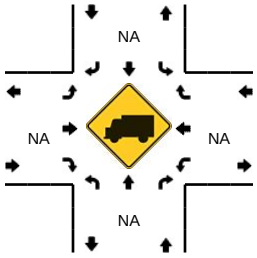


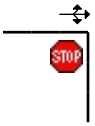


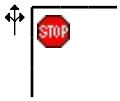


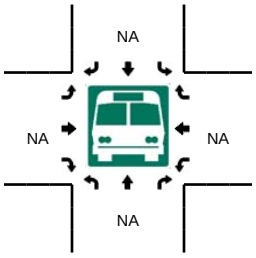












5-Min Count Period Beginning At	B5 - Barton†Rd (Northbound)				B5 - Barton†Rd (Southbound)				Brace†Rd (Eastbound)				Brace†Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	6	0	7	0	0	0	0	0	0	3	7	0	7	1	0	0	31	
11:05 AM	13	0	8	0	0	0	0	0	0	3	10	0	4	6	0	0	44	
11:10 AM	9	0	6	0	0	0	0	0	0	3	7	0	8	2	0	0	35	
11:15 AM	8	0	5	0	0	0	0	0	0	2	10	0	7	2	0	0	34	
11:20 AM	4	0	4	0	0	0	0	0	0	3	7	0	10	4	0	0	32	
11:25 AM	16	0	8	0	0	0	0	0	0	5	7	0	8	3	0	0	47	
11:30 AM	1	0	11	0	0	0	0	0	0	1	8	0	4	3	0	0	28	
11:35 AM	11	0	4	0	0	0	0	0	0	3	4	0	5	5	0	0	32	
11:40 AM	11	0	2	0	0	0	0	0	0	2	14	0	7	2	0	0	38	
11:45 AM	11	0	14	0	0	0	0	0	0	2	8	0	6	2	0	0	43	
11:50 AM	12	0	8	0	0	0	0	0	0	1	6	0	8	2	0	0	37	
11:55 AM	7	0	3	0	0	0	0	0	0	1	6	0	8	1	0	0	26	427
12:00 PM	9	0	8	0	0	0	0	0	0	0	7	0	10	0	0	0	34	430
12:05 PM	5	0	12	0	0	0	0	0	0	4	10	0	8	3	0	0	42	428
12:10 PM	11	0	6	0	0	0	0	0	0	4	5	0	11	3	0	0	40	433
12:15 PM	11	0	8	0	0	0	0	0	0	4	10	0	1	5	0	0	39	438
12:20 PM	4	1	18	0	1	0	0	0	0	1	11	0	7	1	0	0	44	450
12:25 PM	8	0	7	0	0	0	0	0	0	0	9	0	13	2	0	0	39	442
12:30 PM	9	0	6	0	0	0	0	0	0	4	10	0	4	1	0	0	34	448
12:35 PM	8	0	9	0	0	0	0	0	0	1	6	0	9	2	0	0	35	451
12:40 PM	12	0	16	0	0	0	0	0	0	4	10	0	3	4	0	0	49	462
12:45 PM	7	1	18	0	0	0	1	0	0	1	16	0	8	4	0	0	56	475
12:50 PM	4	0	13	0	0	0	0	0	0	3	8	0	6	3	0	0	37	475
12:55 PM	8	0	11	0	0	0	0	0	0	2	9	0	9	2	0	1	42	491

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	92	4	188	0	0	0	4	0	0	32	136	0	68	44	0	0	568
Heavy Trucks	0	0	4		0	0	0		0	0	12		0	8	0		24
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	1		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

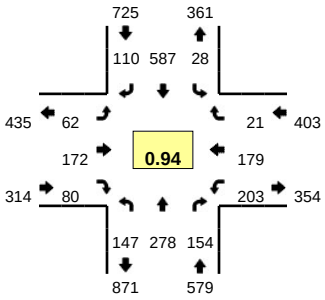
Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Taylor Rd

CITY/STATE: Loomis, CA

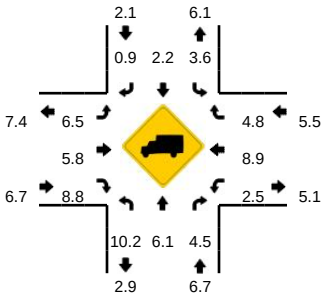
QC JOB #: 13963301

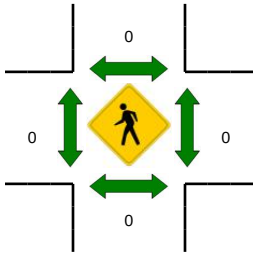
DATE: Thu, Nov 17 2016

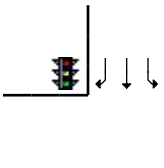


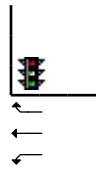
Peak-Hour: 7:30 AM -- 8:30 AM

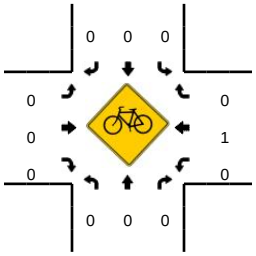
Peak 15-Min: 7:40 AM -- 7:55 AM

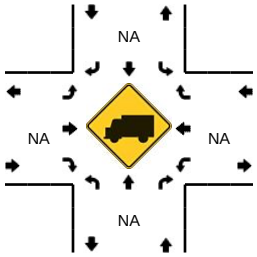


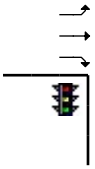


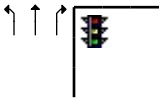


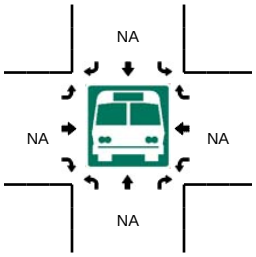












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Taylor Rd (Eastbound)				Taylor Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	15	11	0	2	20	3	0	2	10	5	0	16	8	1	0	99	
7:05 AM	10	16	12	0	1	35	7	0	1	12	1	0	7	6	2	0	110	
7:10 AM	8	12	14	0	0	45	5	0	4	15	4	0	12	9	0	0	128	
7:15 AM	11	20	13	0	2	51	11	0	3	6	3	0	15	9	0	0	144	
7:20 AM	14	15	12	0	2	32	4	0	4	11	4	0	10	13	0	0	121	
7:25 AM	9	22	12	0	0	38	3	0	2	20	4	0	6	10	0	0	126	
7:30 AM	10	14	19	0	4	46	2	0	3	20	4	0	20	21	4	0	167	
7:35 AM	11	19	8	0	3	43	5	0	7	21	8	0	16	12	1	0	154	
7:40 AM	22	26	7	0	0	51	11	0	4	10	7	0	15	18	6	0	177	
7:45 AM	13	21	16	0	1	63	15	0	5	13	7	0	10	15	2	0	181	
7:50 AM	8	22	12	0	5	53	9	0	9	14	7	0	23	15	1	0	178	
7:55 AM	10	26	16	0	4	46	12	0	4	17	7	0	11	13	0	0	166	1751
8:00 AM	4	29	18	1	3	47	15	0	8	7	3	0	26	19	1	0	181	1833
8:05 AM	17	28	10	0	1	36	5	0	6	19	6	0	16	12	4	0	160	1883
8:10 AM	12	25	17	0	0	68	12	0	2	9	7	0	14	8	1	0	175	1930
8:15 AM	12	29	9	0	1	37	9	0	4	15	12	0	19	20	0	0	167	1953
8:20 AM	15	26	11	0	1	48	10	0	3	14	8	0	9	13	1	0	159	1991
8:25 AM	12	13	11	0	5	49	5	0	7	13	4	0	24	13	0	0	156	2021
8:30 AM	13	23	12	1	2	28	7	0	2	12	8	0	11	12	5	0	136	1990
8:35 AM	9	20	11	0	3	42	5	0	4	11	7	0	21	13	2	0	148	1984
8:40 AM	1	17	10	0	4	33	7	0	9	12	7	0	9	7	1	0	117	1924
8:45 AM	22	23	9	0	0	21	9	0	2	15	9	0	13	14	0	0	137	1880
8:50 AM	5	11	10	0	4	66	12	0	1	14	11	0	7	10	5	0	156	1858
8:55 AM	11	21	17	0	1	38	4	0	3	11	8	0	9	8	2	0	133	1825

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	172	276	140	0	24	668	140	0	72	148	84	0	192	192	36	0	2144
Heavy Trucks	12	16	8		0	12	0		4	8	8		12	24	4		108
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

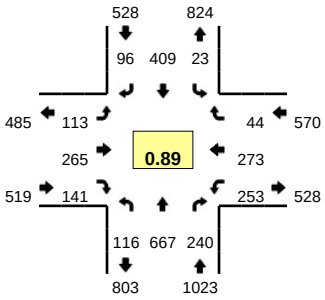
Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Taylor Rd

CITY/STATE: Loomis, CA

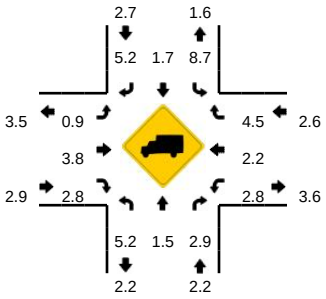
QC JOB #: 13963302

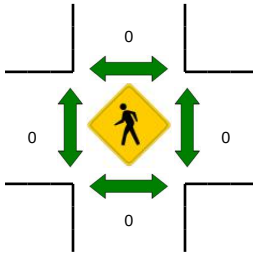
DATE: Thu, Nov 17 2016

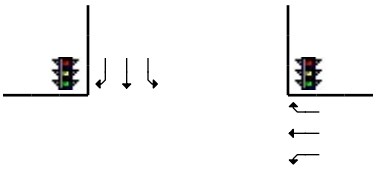


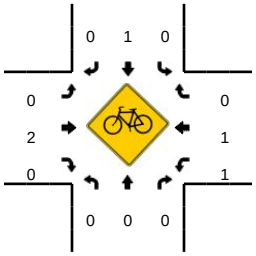
Peak-Hour: 4:35 PM -- 5:35 PM

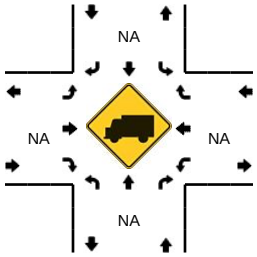
Peak 15-Min: 5:05 PM -- 5:20 PM

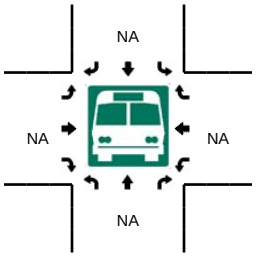












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Taylor Rd (Eastbound)				Taylor Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	17	40	19	0	3	21	7	0	9	26	13	0	19	23	4	0	201	
4:05 PM	13	29	16	0	3	39	3	0	9	26	12	0	20	21	3	0	194	
4:10 PM	7	42	21	1	2	46	5	0	10	26	15	0	26	18	3	0	222	
4:15 PM	10	55	23	0	1	38	5	0	14	33	10	0	11	16	3	0	219	
4:20 PM	7	56	25	1	1	28	6	0	10	29	15	1	22	17	2	0	220	
4:25 PM	23	57	23	0	2	22	9	0	9	22	8	0	16	22	0	0	213	
4:30 PM	10	43	26	1	1	22	7	0	14	24	13	0	29	18	1	0	209	
4:35 PM	9	51	19	0	2	18	3	0	12	21	17	0	33	15	3	0	203	
4:40 PM	15	45	24	0	1	37	6	0	8	25	13	0	28	21	3	0	226	
4:45 PM	7	63	12	0	1	30	10	0	5	24	10	0	17	39	2	0	220	
4:50 PM	14	35	18	0	6	27	5	0	6	20	7	0	14	16	2	0	170	
4:55 PM	12	73	20	0	2	35	5	0	9	14	7	0	13	21	5	0	216	2513
5:00 PM	4	39	19	0	2	36	11	0	11	21	13	0	18	27	3	0	204	2516
5:05 PM	7	68	16	0	4	30	8	0	7	37	19	0	22	24	3	0	245	2567
5:10 PM	11	49	25	0	2	37	8	0	21	12	18	0	34	30	6	0	253	2598
5:15 PM	7	76	28	0	0	28	10	0	16	26	5	0	18	26	7	0	247	2626
5:20 PM	14	60	23	0	0	38	11	0	8	24	9	0	21	16	3	0	227	2633
5:25 PM	6	57	15	0	1	57	13	0	4	20	11	0	16	16	2	0	218	2638
5:30 PM	10	51	21	0	2	36	6	0	6	21	12	0	19	22	5	0	211	2640
5:35 PM	8	52	19	1	1	28	13	0	6	29	13	1	11	16	2	0	200	2637
5:40 PM	13	49	20	0	3	28	3	0	14	21	5	0	14	15	3	0	188	2599
5:45 PM	8	48	18	0	1	21	4	0	9	16	9	0	21	13	2	0	170	2549
5:50 PM	7	42	20	0	3	39	7	1	4	28	8	0	7	20	1	0	187	2566
5:55 PM	10	51	23	0	5	34	6	0	10	12	6	0	19	8	2	0	186	2536

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	100	772	276	0	24	380	104	0	176	300	168	0	296	320	64	0	2980
Heavy Trucks	4	12	4		0	4	8		4	12	0		4	8	4		64
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

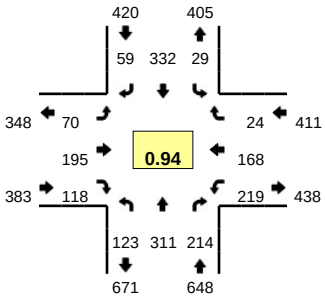
Method for determining peak hour: Total Entering Volume

LOCATION: B10 - Sierra†College†Blvd -- Taylor†Rd

QC JOB #: 14088501

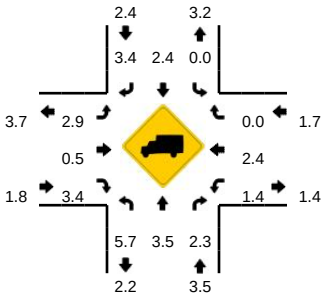
CITY/STATE: Loomis, CA

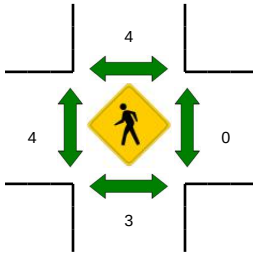
DATE: Sat, Jan 28 2017

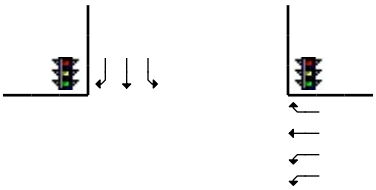


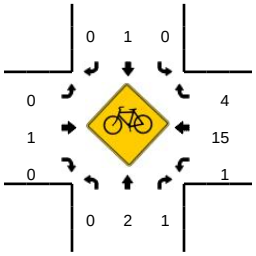
Peak-Hour: 12:00 PM -- 1:00 PM

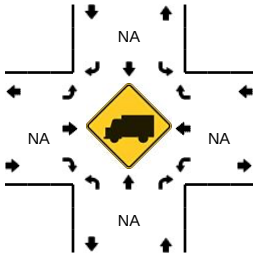
Peak 15-Min: 12:10 PM -- 12:25 PM

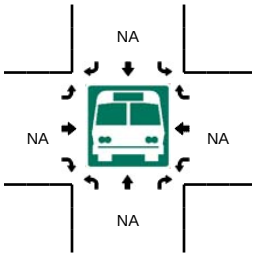












5-Min Count Period Beginning At	B10 - Sierra†College†Blvd (Northbound)				B10 - Sierra†College†Blvd (Southbound)				Taylor†Rd (Eastbound)				Taylor†Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	10	19	13	1	5	15	3	0	5	14	7	0	11	10	3	0	116	
11:05 AM	8	38	8	2	2	28	6	0	4	15	6	0	12	25	1	0	155	
11:10 AM	12	20	18	0	3	31	4	0	0	11	4	0	15	17	0	0	135	
11:15 AM	4	17	11	0	2	26	4	0	2	16	5	0	14	16	2	0	119	
11:20 AM	14	30	12	1	1	23	3	0	11	17	7	0	17	17	0	0	153	
11:25 AM	9	20	11	0	1	37	3	0	4	15	8	0	12	9	0	0	129	
11:30 AM	6	24	27	0	3	27	2	0	5	18	4	0	12	15	2	0	145	
11:35 AM	5	24	9	0	2	36	3	0	0	13	6	0	17	11	3	0	129	
11:40 AM	9	20	15	0	0	28	2	0	8	20	12	0	25	17	3	0	159	
11:45 AM	7	24	19	0	3	38	4	0	4	13	3	0	19	10	5	0	149	
11:50 AM	14	27	21	0	2	32	4	0	2	11	11	0	6	10	1	0	141	
11:55 AM	13	14	14	0	4	27	1	0	6	18	8	0	16	14	2	0	137	1667
12:00 PM	10	28	22	0	3	30	3	0	1	16	8	0	6	13	6	0	146	1697
12:05 PM	8	18	16	0	3	20	3	0	9	18	9	0	21	14	2	0	141	1683
12:10 PM	21	29	16	1	5	22	4	0	4	15	8	0	35	18	2	0	180	1728
12:15 PM	6	33	10	0	3	37	6	0	4	11	7	0	24	15	1	0	157	1766
12:20 PM	5	25	23	1	1	24	6	0	12	21	11	0	12	18	1	0	160	1773
12:25 PM	14	23	19	0	6	28	6	0	5	21	9	0	16	9	2	0	158	1802
12:30 PM	8	33	17	0	1	33	6	0	7	19	10	0	14	12	0	0	160	1817
12:35 PM	11	18	15	0	1	24	6	0	8	16	7	0	26	17	4	0	153	1841
12:40 PM	4	23	15	0	1	31	4	0	6	13	17	0	20	9	1	0	144	1826
12:45 PM	17	30	27	0	2	21	7	0	5	17	19	0	14	14	1	0	174	1851
12:50 PM	8	27	14	0	2	39	3	0	2	12	4	0	11	12	3	0	137	1847
12:55 PM	9	24	20	0	1	23	5	0	7	16	9	0	20	17	1	0	152	1862

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	128	348	196	8	36	332	64	0	80	188	104	0	284	204	16	0	1988
Heavy Trucks	4	4	4		0	4	4		4	0	0		0	4	0		28
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	1	0		0	0	0		0	2	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Brace Rd

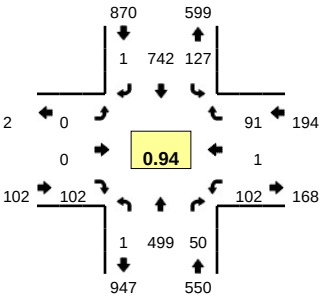
CITY/STATE: Loomis, CA

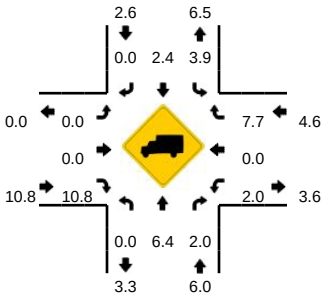
QC JOB #: 13963303

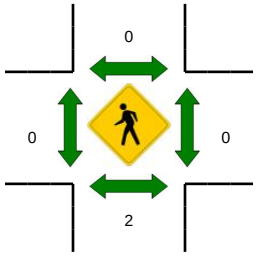
DATE: Thu, Nov 17 2016

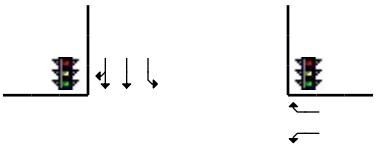
Peak-Hour: 7:30 AM -- 8:30 AM

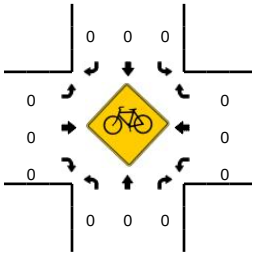
Peak 15-Min: 8:00 AM -- 8:15 AM

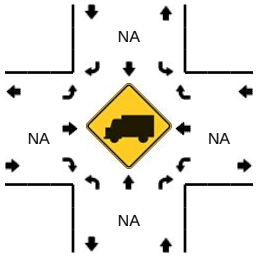


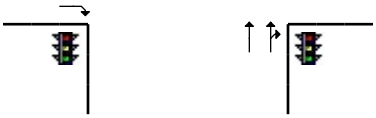


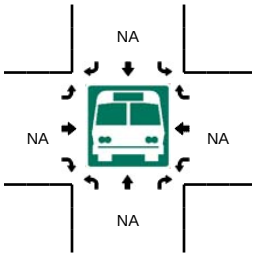












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Brace Rd (Eastbound)				Brace Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	31	3	0	3	38	0	0	0	0	4	0	8	0	5	0	92	
7:05 AM	0	32	1	0	3	35	0	0	0	0	8	0	7	0	6	0	92	
7:10 AM	0	37	7	0	4	55	0	0	0	0	9	0	11	0	3	0	126	
7:15 AM	0	34	3	0	5	63	0	0	0	0	2	0	4	0	4	0	115	
7:20 AM	0	35	4	0	6	44	0	0	0	0	4	0	2	0	6	0	101	
7:25 AM	0	37	2	0	4	40	0	0	0	0	3	0	4	0	6	0	96	
7:30 AM	0	44	5	0	9	58	0	1	0	0	6	0	9	0	11	0	143	
7:35 AM	0	38	3	0	14	55	1	0	0	0	10	0	6	0	5	0	132	
7:40 AM	0	40	3	1	11	61	0	0	0	0	12	0	4	1	5	0	138	
7:45 AM	0	46	4	0	6	71	0	2	0	0	12	0	9	0	8	0	158	
7:50 AM	0	34	4	0	16	71	0	1	0	0	4	0	11	0	5	0	146	
7:55 AM	0	48	9	0	4	55	0	2	0	0	3	0	6	0	3	0	130	1469
8:00 AM	0	42	5	0	10	62	0	1	0	0	9	0	14	0	13	0	156	1533
8:05 AM	0	53	5	0	7	59	0	0	0	0	11	0	7	0	9	0	151	1592
8:10 AM	0	39	2	0	13	63	0	1	0	0	8	0	12	0	12	0	150	1616
8:15 AM	0	45	2	0	8	67	0	0	0	0	10	0	5	0	10	0	147	1648
8:20 AM	0	44	3	0	13	54	0	0	0	0	7	0	5	0	6	0	132	1679
8:25 AM	0	26	5	0	7	66	0	1	0	0	10	0	14	0	4	0	133	1716
8:30 AM	0	50	2	0	8	45	0	0	0	0	15	0	13	0	2	0	135	1708
8:35 AM	0	43	5	0	5	62	0	0	0	0	6	0	15	0	0	0	136	1712
8:40 AM	0	32	7	0	2	39	0	1	0	0	5	0	7	1	5	0	99	1673
8:45 AM	0	33	7	0	11	38	0	0	0	0	6	0	7	0	7	0	109	1624
8:50 AM	0	29	6	0	11	69	0	1	0	0	3	0	6	0	2	0	127	1605
8:55 AM	0	41	3	0	2	49	0	2	0	0	0	0	8	0	4	0	109	1584

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	536	48	0	120	736	0	8	0	0	112	0	132	0	136	0	1828
Heavy Trucks	0	44	0		4	16	0		0	0	24		0	0	4		92
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

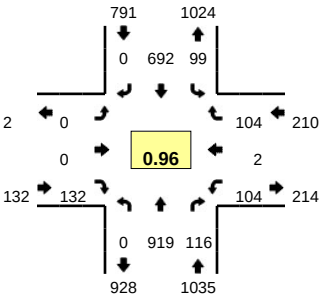
Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Brace Rd

CITY/STATE: Loomis, CA

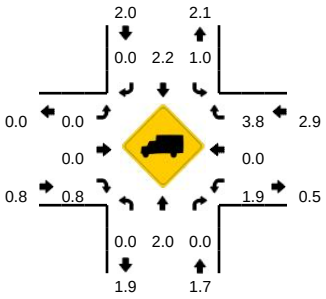
QC JOB #: 13963304

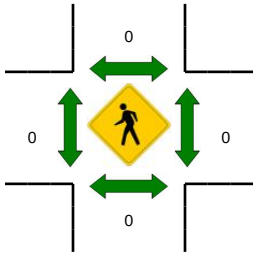
DATE: Thu, Nov 17 2016

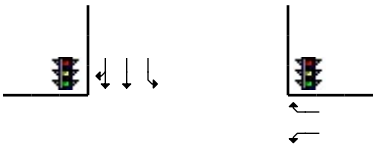


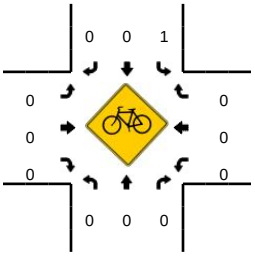
Peak-Hour: 4:40 PM -- 5:40 PM

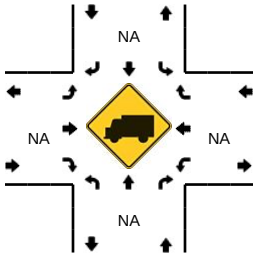
Peak 15-Min: 5:05 PM -- 5:20 PM

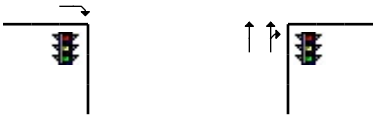


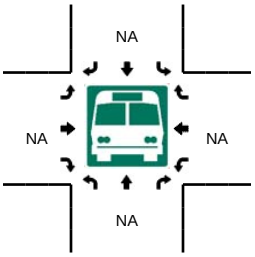












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Brace Rd (Eastbound)				Brace Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	64	12	0	8	43	0	0	0	0	9	0	10	0	10	0	156	
4:05 PM	0	60	10	0	10	52	0	0	0	0	18	0	10	0	5	0	165	
4:10 PM	0	60	5	0	9	76	0	0	0	0	12	0	8	0	7	0	177	
4:15 PM	0	72	14	0	7	43	0	1	0	0	10	0	13	0	15	0	175	
4:20 PM	0	82	15	0	8	57	0	1	0	0	4	0	9	1	13	0	190	
4:25 PM	0	79	11	0	5	30	0	1	0	0	11	0	11	0	11	0	159	
4:30 PM	0	78	9	0	16	61	0	0	0	0	14	0	8	0	7	0	193	
4:35 PM	0	59	8	0	12	45	0	0	0	0	11	0	10	0	17	0	162	
4:40 PM	0	87	7	0	8	70	0	0	0	0	18	0	4	1	8	0	203	
4:45 PM	0	63	8	0	9	52	0	0	0	0	10	0	12	0	10	0	164	
4:50 PM	0	68	17	0	6	47	0	0	0	0	10	0	10	0	7	0	165	
4:55 PM	0	89	11	0	6	47	0	0	0	0	10	0	6	0	15	0	184	2093
5:00 PM	0	58	6	0	9	57	0	0	0	0	13	0	13	0	10	0	166	2103
5:05 PM	0	89	7	0	10	59	0	1	0	0	11	0	7	0	9	0	193	2131
5:10 PM	0	62	4	0	10	76	0	0	0	0	10	0	9	0	11	0	182	2136
5:15 PM	0	92	10	0	10	42	0	0	0	0	8	0	9	1	16	0	188	2149
5:20 PM	0	79	10	0	3	60	0	0	0	0	9	0	9	0	8	0	178	2137
5:25 PM	0	71	15	0	8	76	0	0	0	0	7	0	11	0	1	0	189	2167
5:30 PM	0	71	10	0	7	63	0	0	0	0	12	0	6	0	6	0	175	2149
5:35 PM	0	90	11	0	12	43	0	0	0	0	14	0	8	0	3	0	181	2168
5:40 PM	0	62	9	0	4	41	0	0	0	0	3	0	6	0	8	0	133	2098
5:45 PM	0	67	11	0	3	42	0	0	0	0	5	0	6	0	5	0	139	2073
5:50 PM	0	73	7	0	6	56	0	0	0	0	6	0	8	0	6	0	162	2070
5:55 PM	0	64	9	0	4	52	0	0	0	0	6	0	14	0	7	0	156	2042

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	972	84	0	120	708	0	4	0	0	116	0	100	4	144	0	2252
Heavy Trucks	0	16	0		0	12	0		0	0	0		0	0	0		28
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

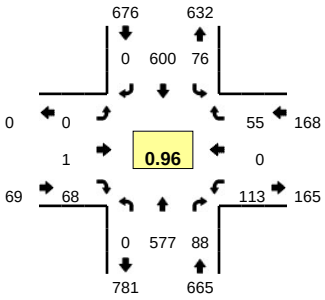
LOCATION: B9 - Sierra†College†Blvd -- Brace†Rd

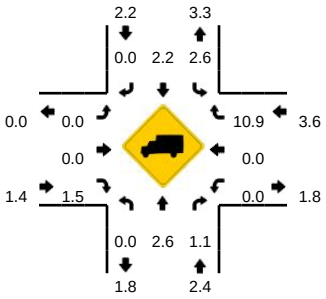
QC JOB #: 14088502

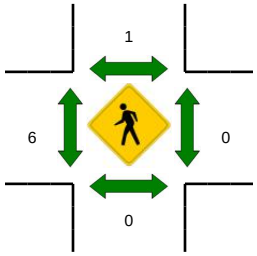
CITY/STATE: Loomis, CA

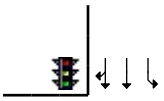
DATE: Sat, Jan 28 2017

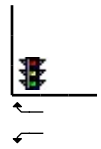
Peak-Hour: 12:00 PM -- 1:00 PM
Peak 15-Min: 12:05 PM -- 12:20 PM

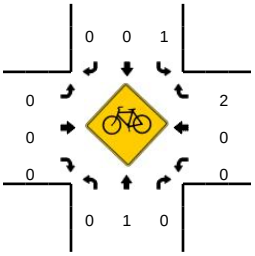


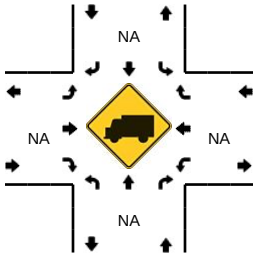


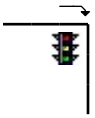


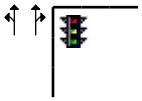


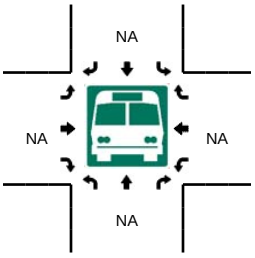












5-Min Count Period Beginning At	B9 - Sierra†College†Blvd (Northbound)				B9 - Sierra†College†Blvd (Southbound)				Brace†Rd (Eastbound)				Brace†Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	40	8	0	5	30	0	2	0	0	1	0	9	0	4	0	99	
11:05 AM	0	46	11	0	4	40	0	1	0	0	4	0	3	0	6	0	115	
11:10 AM	0	39	6	0	6	45	1	0	0	0	7	0	9	0	8	0	121	
11:15 AM	0	28	13	0	8	39	0	0	0	0	3	0	16	0	4	0	111	
11:20 AM	0	49	10	0	3	48	1	0	0	0	3	0	6	0	6	0	126	
11:25 AM	0	41	5	0	7	50	1	0	0	0	3	0	6	0	3	0	116	
11:30 AM	0	49	9	0	5	41	0	0	0	0	4	0	7	0	7	0	122	
11:35 AM	0	34	4	0	6	49	0	0	0	0	10	0	16	0	4	0	123	
11:40 AM	0	47	8	0	4	65	0	0	0	0	1	0	11	0	4	0	140	
11:45 AM	0	39	5	0	4	56	0	1	0	0	5	0	5	0	6	0	121	
11:50 AM	0	53	5	0	5	44	0	0	1	0	4	0	9	0	7	0	128	
11:55 AM	0	48	6	0	4	47	1	0	0	0	6	0	5	0	2	0	119	1441
12:00 PM	0	48	6	0	4	38	0	0	0	0	4	0	12	0	6	0	118	1460
12:05 PM	0	54	7	0	7	52	0	0	0	0	5	0	9	0	8	0	142	1487
12:10 PM	0	45	5	0	4	61	0	0	0	0	1	0	16	0	5	0	137	1503
12:15 PM	0	36	9	0	2	65	0	0	0	0	8	0	8	0	5	0	133	1525
12:20 PM	0	51	7	0	7	38	0	0	0	0	8	0	5	0	3	0	119	1518
12:25 PM	0	48	7	0	7	51	0	0	0	0	4	0	16	0	6	0	139	1541
12:30 PM	0	54	4	0	8	43	0	0	0	0	6	0	7	0	7	0	129	1548
12:35 PM	0	43	11	0	3	59	0	0	0	1	4	0	9	0	2	0	132	1557
12:40 PM	0	36	3	0	7	53	0	0	0	0	10	0	9	0	4	0	122	1539
12:45 PM	0	66	10	0	8	50	0	0	0	0	6	0	4	0	5	0	149	1567
12:50 PM	0	45	7	0	12	40	0	0	0	0	4	0	11	0	2	0	121	1560
12:55 PM	0	51	12	0	7	50	0	0	0	0	8	0	7	0	2	0	137	1578

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	540	84	0	52	712	0	0	0	0	56	0	132	0	72	0	1648
Heavy Trucks	0	16	0		0	0	0		0	0	4		0	0	0		20
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Granite Dr

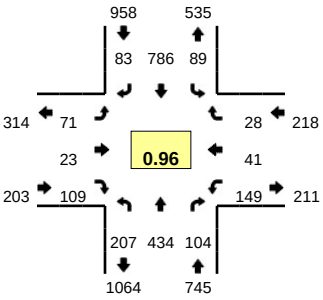
CITY/STATE: Rocklin, CA

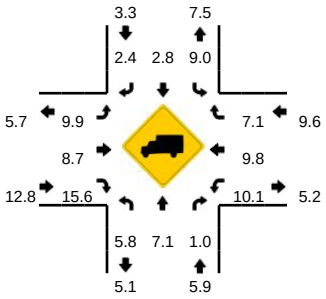
QC JOB #: 13963305

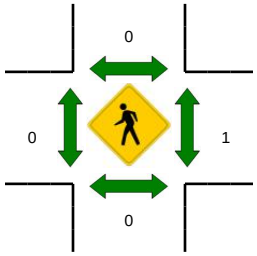
DATE: Thu, Nov 17 2016

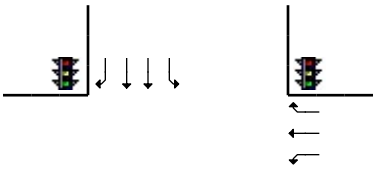
Peak-Hour: 7:35 AM -- 8:35 AM

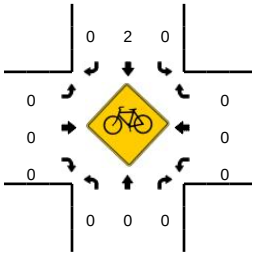
Peak 15-Min: 7:40 AM -- 7:55 AM

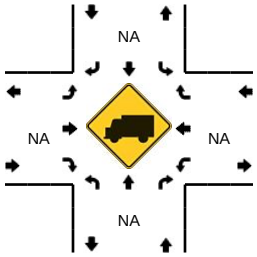


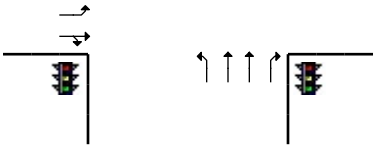


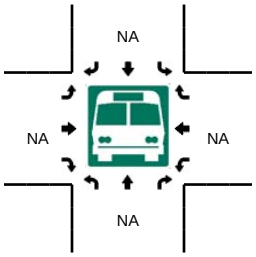












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Granite Dr (Eastbound)				Granite Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	17	23	11	3	3	37	7	0	4	1	12	0	14	2	3	0	137	
7:05 AM	9	28	9	1	9	36	6	1	3	1	9	1	19	0	1	0	133	
7:10 AM	10	32	9	2	4	59	5	0	8	2	4	0	11	4	2	0	152	
7:15 AM	10	32	8	3	7	58	4	0	4	0	4	0	11	2	6	0	149	
7:20 AM	12	38	8	2	6	53	1	1	1	2	6	1	9	2	3	0	145	
7:25 AM	11	20	13	4	1	27	4	1	7	2	9	1	11	3	2	0	116	
7:30 AM	18	38	7	2	8	59	2	0	4	3	5	1	12	0	4	0	163	
7:35 AM	11	39	10	1	9	74	7	0	6	1	7	0	13	0	2	0	180	
7:40 AM	19	41	13	0	6	56	7	0	6	4	7	0	12	3	0	0	174	
7:45 AM	22	37	8	5	4	77	10	0	8	2	9	0	11	4	3	0	200	
7:50 AM	23	31	6	4	8	73	5	1	5	2	9	1	8	3	2	0	181	
7:55 AM	19	37	3	1	5	58	8	0	5	1	12	0	9	8	3	0	169	1899
8:00 AM	19	39	11	0	5	63	8	0	2	2	6	0	16	4	2	0	177	1939
8:05 AM	13	40	11	1	7	55	8	3	7	1	8	0	11	5	0	0	170	1976
8:10 AM	10	30	14	0	6	70	7	1	8	2	11	0	11	3	3	0	176	2000
8:15 AM	16	42	8	1	7	69	6	0	3	1	9	0	19	2	4	0	187	2038
8:20 AM	16	29	7	2	8	54	6	0	4	2	10	0	14	2	3	0	157	2050
8:25 AM	10	26	9	3	8	68	6	0	7	4	10	1	14	3	3	0	172	2106
8:30 AM	9	43	4	2	11	69	5	0	7	1	11	1	11	4	3	0	181	2124
8:35 AM	9	38	9	0	4	71	2	1	5	1	14	0	14	2	1	0	171	2115
8:40 AM	14	28	7	0	5	49	3	1	7	3	25	1	9	1	2	0	155	2096
8:45 AM	15	35	14	2	3	40	6	3	0	1	7	1	11	4	1	0	143	2039
8:50 AM	18	34	8	1	5	49	7	0	4	4	14	0	9	4	2	0	159	2017
8:55 AM	14	41	2	1	6	53	4	0	1	2	9	0	16	4	3	0	156	2004

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	256	436	108	36	72	824	88	4	76	32	100	4	124	40	20	0	2220
Heavy Trucks	20	20	0		16	16	4		8	4	16		8	4	0		116
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Granite Dr

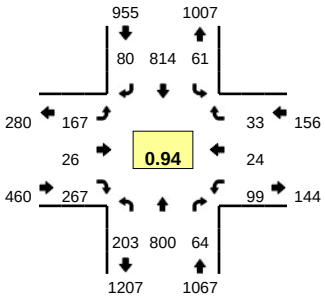
CITY/STATE: Rocklin, CA

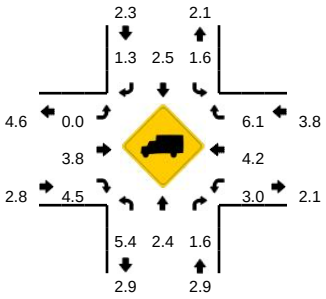
QC JOB #: 13963306

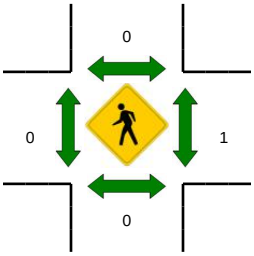
DATE: Thu, Nov 17 2016

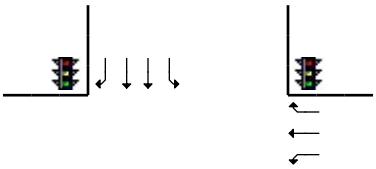
Peak-Hour: 4:35 PM -- 5:35 PM

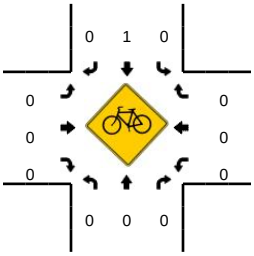
Peak 15-Min: 5:00 PM -- 5:15 PM

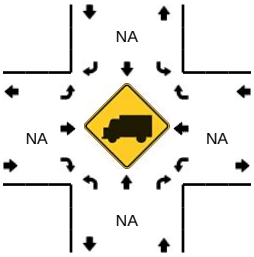


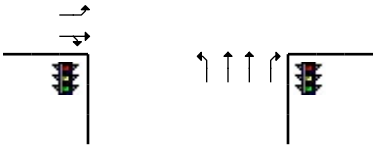


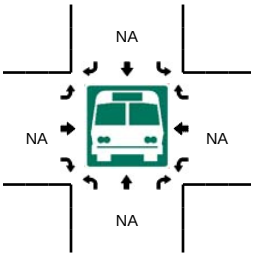












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Granite Dr (Eastbound)				Granite Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	15	45	1	2	1	56	7	0	11	2	17	2	8	2	4	0	173	
4:05 PM	16	55	8	1	6	66	1	2	11	3	19	1	7	0	3	0	199	
4:10 PM	13	72	5	2	3	99	7	0	6	2	21	0	2	2	3	0	237	
4:15 PM	16	90	6	5	4	55	5	1	11	1	24	0	4	1	3	0	226	
4:20 PM	21	63	5	3	1	56	7	0	10	7	19	0	13	2	8	0	215	
4:25 PM	6	63	5	1	2	67	8	0	20	3	17	0	9	2	1	0	204	
4:30 PM	15	56	10	2	5	52	8	1	12	1	18	0	5	0	1	0	186	
4:35 PM	10	73	9	1	5	61	8	0	12	2	19	0	2	2	3	1	208	
4:40 PM	16	55	5	2	4	75	11	0	12	4	22	0	10	2	4	0	222	
4:45 PM	12	66	2	4	4	65	3	1	15	1	14	0	11	1	3	0	202	
4:50 PM	11	68	5	4	5	60	6	1	11	4	15	0	10	2	2	0	204	
4:55 PM	7	68	1	1	2	61	5	0	14	0	29	0	12	0	5	0	205	2481
5:00 PM	20	82	3	1	4	74	5	0	9	0	32	0	4	2	3	0	239	2547
5:05 PM	14	55	9	2	1	69	6	0	13	2	27	0	7	3	2	0	210	2558
5:10 PM	20	72	7	4	6	77	6	1	16	4	27	0	10	4	1	0	255	2576
5:15 PM	17	67	6	1	1	67	6	0	15	3	24	0	7	1	4	0	219	2569
5:20 PM	19	60	5	4	9	69	6	2	11	2	22	0	9	5	2	0	225	2579
5:25 PM	16	61	9	1	6	72	9	1	20	3	15	1	7	2	2	0	225	2600
5:30 PM	13	73	3	3	6	64	9	2	18	1	21	0	9	0	2	0	224	2638
5:35 PM	9	59	9	1	7	62	4	0	8	3	11	0	9	2	1	0	185	2615
5:40 PM	10	67	12	3	2	47	4	0	9	3	11	2	8	1	2	0	181	2574
5:45 PM	8	66	7	1	1	52	3	0	10	1	16	0	6	1	4	0	176	2548
5:50 PM	8	68	7	1	5	54	6	1	6	1	20	0	12	4	2	0	195	2539
5:55 PM	7	50	5	2	4	54	7	1	21	2	11	0	12	5	3	0	184	2518

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	216	836	76	28	44	880	68	4	152	24	344	0	84	36	24	0	2816
Heavy Trucks	16	12	0		0	16	0		0	4	16		0	4	4		72
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

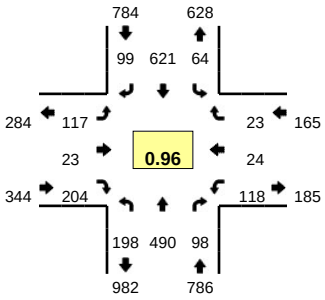
LOCATION: B7 - Sierra†College†Blvd -- Granite†Drive

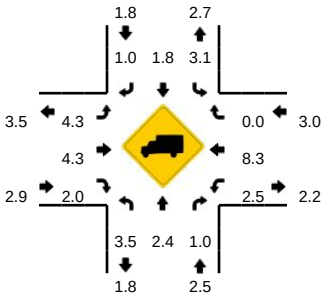
QC JOB #: 14088503

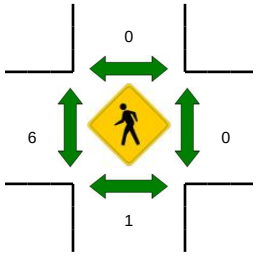
CITY/STATE: Rocklin, CA

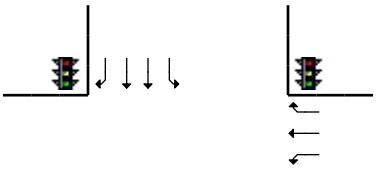
DATE: Sat, Jan 28 2017

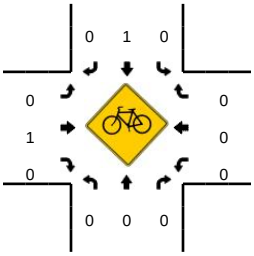
Peak-Hour: 12:00 PM -- 1:00 PM
Peak 15-Min: 12:15 PM -- 12:30 PM

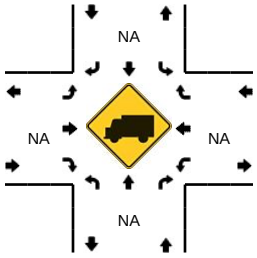


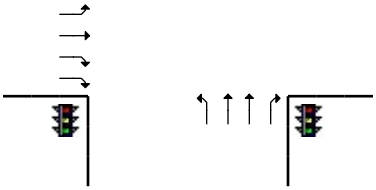


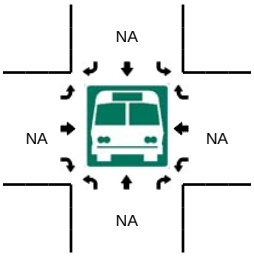












5-Min Count Period Beginning At	B7 - Sierra†College†Blvd (Northbound)				B7 - Sierra†College†Blvd (Southbound)				Granite†Drive (Eastbound)				Granite†Drive (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	12	34	1	3	6	31	2	0	8	3	12	0	7	1	4	0	124	
11:05 AM	5	35	10	1	2	41	4	0	12	3	15	0	16	0	3	0	147	
11:10 AM	6	41	11	4	7	47	2	0	3	3	6	0	11	3	0	0	144	
11:15 AM	11	19	7	1	2	41	8	0	8	0	14	0	12	2	6	0	131	
11:20 AM	12	46	5	3	6	49	9	0	12	2	10	0	8	3	3	0	168	
11:25 AM	12	39	10	3	5	37	8	0	9	1	16	0	9	3	1	0	153	
11:30 AM	9	29	4	4	2	54	8	0	13	2	9	0	11	1	3	0	149	
11:35 AM	14	31	11	2	9	54	13	0	9	1	13	0	10	2	2	0	171	
11:40 AM	11	33	6	7	6	56	9	0	11	1	19	0	9	3	1	0	172	
11:45 AM	12	27	7	1	3	57	6	0	13	1	11	0	18	2	2	0	160	
11:50 AM	16	42	4	2	5	42	4	0	14	4	13	0	15	1	2	0	164	
11:55 AM	21	37	6	2	5	44	6	0	5	3	9	0	8	2	2	0	150	1833
12:00 PM	12	45	6	2	3	50	10	0	9	4	16	0	15	2	2	0	176	1885
12:05 PM	13	45	10	3	2	56	9	0	11	2	16	0	7	2	3	0	179	1917
12:10 PM	8	30	8	2	6	44	13	0	10	0	22	0	5	4	1	0	153	1926
12:15 PM	15	44	6	2	5	75	9	0	4	1	11	2	12	1	2	0	189	1984
12:20 PM	19	36	8	3	9	38	7	0	13	4	22	0	11	1	2	0	173	1989
12:25 PM	11	47	9	0	2	62	8	0	5	3	12	0	12	3	3	0	177	2013
12:30 PM	12	35	9	5	2	43	6	0	10	2	12	0	10	4	1	0	151	2015
12:35 PM	12	37	10	6	8	50	10	0	8	0	23	0	8	3	5	0	180	2024
12:40 PM	12	43	6	3	6	64	8	0	7	4	13	0	8	0	1	0	175	2027
12:45 PM	12	40	8	4	5	48	7	0	18	1	20	0	9	2	2	0	176	2043
12:50 PM	15	50	10	4	7	46	5	0	8	0	13	0	7	1	1	0	167	2046
12:55 PM	18	38	8	5	9	45	7	0	12	2	24	0	14	1	0	0	183	2079

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	180	508	92	20	64	700	96	0	88	32	180	8	140	20	28	0	2156
Heavy Trucks	4	16	0		4	8	0		0	0	4		4	4	0		44
Pedestrians		4				0				12				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

Location: Sierra College Blvd -- I-80 WB Ramps
Date: 1/28/2017
Site Code: 14088504

	Sierra College Blvd Southbound					I-80 WB Ramps Westbound					Sierra College Blvd Northbound					On Ramp Northeast Bound					I-80 WB Ramps Eastbound				
Start Time	Right	Bear Right	Thru	Left	U-Turns	Right	Thru	Bear Left	Left	U-Turns	Right	Thru	Left	Hard Left	U-Turns	Hard Right	Bear Right	Bear Left	Hard Left	U-Turns	Hard Right	Right	Thru	Left	U-Turns
11:00 AM	5	13	30	0	0	17	7	0	28	0	16	38	16	0	0	0	0	0	0	0	8	3	0	1	0
11:05 AM	5	21	43	0	0	9	13	0	17	0	20	50	26	0	0	0	0	0	0	0	7	6	0	1	0
11:10 AM	4	23	46	0	0	14	12	0	22	0	15	37	16	0	0	0	0	0	0	0	6	15	0	8	0
11:15 AM	5	19	34	0	0	18	2	0	33	0	15	31	16	0	0	0	0	0	0	0	6	15	0	3	0
11:20 AM	10	19	45	0	0	18	7	0	44	0	11	42	25	0	0	0	0	0	0	0	5	6	0	3	0
11:25 AM	4	18	48	0	0	20	8	0	29	0	9	32	11	0	0	0	0	0	0	0	7	17	0	7	0
11:30 AM	4	17	39	0	0	18	11	0	28	0	17	31	17	0	0	0	0	0	0	0	7	11	0	3	0
11:35 AM	4	28	55	0	0	13	10	0	24	0	15	34	19	0	0	0	0	0	0	0	10	5	0	3	0
11:40 AM	7	24	47	0	0	14	11	0	41	0	18	44	13	0	0	0	0	0	0	0	10	14	0	5	0
11:45 AM	6	28	59	0	0	12	12	0	17	0	13	36	24	0	0	0	0	0	0	0	5	15	0	4	0
11:50 AM	7	19	40	0	0	7	15	0	23	0	22	47	27	0	0	0	0	0	0	0	13	17	0	2	0
11:55 AM	7	16	45	0	0	10	9	0	40	0	17	46	26	0	0	0	0	0	0	0	7	17	0	3	0
12:00 PM	2	30	51	0	0	16	12	0	17	0	17	49	20	0	0	0	0	0	0	0	8	8	0	2	0
12:05 PM	3	24	39	0	0	19	16	0	41	0	26	42	21	0	0	0	0	0	0	0	12	11	0	11	0
12:10 PM	6	29	44	0	0	7	13	0	30	0	21	37	31	0	0	0	0	0	0	0	5	13	0	6	0
12:15 PM	11	31	64	0	0	13	14	0	31	0	19	42	29	0	0	0	0	0	0	0	7	12	0	6	0
12:20 PM	1	18	33	0	0	11	14	0	46	0	19	53	33	0	0	0	0	0	0	0	12	14	0	7	0
12:25 PM	11	27	47	0	0	9	17	0	49	0	20	42	28	0	0	0	0	0	0	0	4	12	0	8	0
12:30 PM	6	25	44	0	0	15	11	0	26	0	20	46	29	0	0	0	0	0	0	0	16	13	0	4	0
12:35 PM	10	22	40	0	0	11	10	0	44	0	17	51	31	0	0	0	0	0	0	0	14	9	0	7	0
12:40 PM	11	33	42	0	0	13	7	0	26	0	23	41	25	0	0	0	0	0	0	0	11	11	0	6	0
12:45 PM	7	26	58	0	0	18	9	0	20	0	18	46	21	0	0	0	0	0	0	0	11	15	0	11	0
12:50 PM	6	18	36	0	0	15	15	0	35	0	23	41	27	0	0	0	0	0	0	0	10	21	1	6	0
12:55 PM	8	29	42	0	0	22	11	0	29	0	15	53	36	0	0	0	0	0	0	0	11	21	0	5	0
Totals	**151**	**570**	**1105**	**0**	**0**	**362**	**270**	**0**	**760**	**0**	**439**	**1049**	**580**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**214**	**304**	**0**	**122**	**0**

Peak Hour: 12:00 PM - 1:00 PM
Peak 15-Min: 12:15 PM - 12:30 PM
PHF: 0.958

	Right	Bear Right	Thru	Left	U-Turns	Right	Thru	Bear Left	Left	U-Turns	Right	Thru	Left	Hard Left	U-Turns	Hard Right	Bear Right	Bear Left	Hard Left	U-Turns	Hard Right	Right	Thru	Left	U-Turns
Total Volume	82	312	540	0	0	169	149	0	394	0	238	543	331	0	0	0	0	0	0	0	121	160	1	79	0
Total Trucks	0	6	16	0	0	11	1	0	8	0	8	12	0	0	0	0	0	0	0	0	0	1	0	0	0
Truck %	0%	2%	3%			7%	1%		2%		3%	2%	0%								0%	1%	0%	0%	

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

Location: Sierra College Blvd -- I-80 WB Ramps
Start Date: 11/17/2016
Site Code: 13963307

	Sierra College Blvd Southbound					I-80 WB Ramps Westbound					Sierra College Blvd Northbound					I-80 On-Ramp Northeastbound					I-80 WB Ramps Eastbound				
Start Time	Right	Right to I-80 On-Ramp	Thru	Left	Peds	Right	Thru	Left to I-80 On-Ramp	Left	Peds	Right	Thru	Left	Left to I-80 On-Ramp	Peds	Right to Sierra College Blvd	Right to I-80 WB Ramps	Left to Sierra College Blvd	Left to I-80 WB Ramps	Peds	Right to I-80 On-Ramp	Right	Thru	Left	Peds
07:00 AM	0	28	34	0	0	21	1	0	27	0	9	33	6	0	0	0	0	0	0	0	1	0	0	1	0
07:05 AM	0	21	35	0	0	20	1	0	37	0	12	27	5	0	0	0	0	0	0	0	0	0	0	1	0
07:10 AM	4	20	34	0	0	20	5	0	34	0	5	39	4	0	0	0	0	0	0	0	2	0	0	0	0
07:15 AM	3	22	56	0	0	12	5	0	34	0	13	44	4	0	0	0	0	0	0	0	3	2	0	0	0
07:20 AM	2	25	50	0	0	15	0	0	36	0	13	49	4	0	0	0	0	0	0	0	2	3	0	1	0
07:25 AM	0	17	35	0	0	21	4	0	56	0	10	35	4	0	0	0	0	0	0	0	2	3	0	0	0
07:30 AM	2	19	45	0	0	22	2	1	53	0	8	44	1	0	0	0	0	0	0	0	4	1	0	0	0
07:35 AM	3	33	48	0	0	19	3	0	53	0	7	39	5	0	0	0	0	0	0	0	0	1	0	0	0
07:40 AM	2	24	48	0	0	23	2	0	53	0	12	60	5	0	0	0	0	0	0	0	1	3	0	0	0
07:45 AM	1	31	58	0	0	27	8	0	50	0	15	52	5	0	0	0	0	0	0	0	1	1	0	0	0
07:50 AM	2	18	54	0	0	21	7	0	76	0	11	41	5	0	0	0	0	0	0	0	4	4	0	0	0
07:55 AM	1	34	52	0	0	23	3	0	64	0	23	44	4	0	0	0	0	0	0	0	4	2	0	0	0
08:00 AM	2	23	38	0	0	14	2	0	53	0	8	56	6	0	0	0	0	0	0	0	1	4	0	1	0
08:05 AM	6	36	48	0	0	17	3	0	30	0	9	50	4	0	0	0	0	0	0	0	0	2	0	0	0
08:10 AM	4	30	50	0	0	17	5	1	47	0	10	42	6	0	0	0	0	0	0	0	1	1	0	0	0
08:15 AM	1	26	61	0	0	25	6	0	45	0	10	50	7	0	0	0	0	0	0	0	1	6	0	0	0
08:20 AM	3	22	61	0	0	16	7	0	34	0	6	39	6	0	0	0	0	0	0	0	2	2	0	0	0
08:25 AM	6	25	67	0	0	15	7	0	44	0	6	44	4	0	0	0	0	0	0	0	1	5	0	0	0
08:30 AM	6	23	46	0	0	17	6	0	56	0	10	39	6	0	0	0	0	0	0	0	1	4	0	3	0
08:35 AM	4	35	65	0	0	11	8	0	30	0	10	39	10	0	0	0	0	0	0	0	4	6	0	1	0
08:40 AM	2	22	53	0	0	21	4	0	41	0	11	34	10	0	0	0	0	0	0	0	3	3	0	1	0
08:45 AM	4	24	34	0	0	25	7	0	32	0	15	40	6	0	0	0	0	0	0	0	6	1	0	1	0
08:50 AM	1	30	56	0	0	19	5	1	39	0	5	44	3	0	0	0	0	0	0	0	1	4	0	0	0
08:55 AM	1	19	53	0	0	20	5	0	36	0	8	44	13	0	0	0	0	0	0	0	4	6	0	1	0
Total	**60**	**607**	**1181**	**0**	**0**	**461**	**106**	**3**	**1060**	**0**	**246**	**1028**	**133**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**49**	**64**	**0**	**11**	**0**

Peak Hour: 7:40 AM - 8:40 AM
Peak 15: 7:45 AM - 8:00 AM
PHF: 0.906836

	Right	Right to I-8	Thru	Left	Peds	Right	Thru	Left to I-80	Left	Peds	Right	Thru	Left	Left to I-80	Peds	Right to Si	Right to I-8	Left to Sier	Left to I-80	Peds	Right to I-8	Right	Thru	Left	Peds
Total Volume	38	327	648	0	0	226	64	1	582	0	130	556	68	0	0	0	0	0	0	0	21	40	0	5	0
Total Trucks	0	24	34	0	0	16	1	0	15	0	17	31	3	0	0	0	0	0	0	0	0	3	0	0	0
Truck %	0%	7%	5%			7%	2%	0%	3%		13%	6%	4%								0%	8%		0%	

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

Location: Sierra College Blvd -- I-80 WB Ramps
Start Date: 11/17/2016
Site Code: 13963308

	Sierra College Blvd Southbound					I-80 WB Ramps Westbound					Sierra College Blvd Northbound					I-80 On-Ramp Northeastbound					I-80 WB Ramps Eastbound				
Start Time	Right	Right to I-80 On-Ramp	Thru	Left	Peds	Right	Thru	Left to I-80 On-Ramp	Left	Peds	Right	Thru	Left	Left to I-80 On-Ramp	Peds	Right to Sierra College Blvd	Right to I-80 WB Ramps	Left to Sierra College Blvd	Left to I-80 WB Ramps	Peds	Right to I-80 On-Ramp	Right	Thru	Left	Peds
04:00 PM	4	19	76	0	0	18	5	1	32	0	18	46	7	0	0	0	0	0	0	0	9	20	0	6	0
04:05 PM	6	19	61	0	0	11	2	0	17	0	15	64	13	0	0	0	0	0	0	0	7	10	0	1	0
04:10 PM	6	32	73	0	0	16	9	0	33	0	18	73	11	0	0	0	0	0	0	0	4	9	0	5	0
04:15 PM	10	14	83	0	0	19	4	0	25	0	17	77	15	0	0	0	0	0	0	0	6	11	0	6	0
04:20 PM	4	24	55	0	0	24	10	0	35	0	21	81	17	0	0	0	0	0	0	0	5	16	0	7	0
04:25 PM	11	18	53	0	0	15	9	0	35	0	17	63	15	0	0	0	0	0	0	0	6	16	0	4	0
04:30 PM	4	18	53	0	0	14	5	0	32	0	16	64	19	0	0	0	0	0	0	0	6	13	0	7	0
04:35 PM	7	20	46	0	0	9	10	0	29	0	19	67	16	0	0	0	0	0	0	0	9	15	0	8	0
04:40 PM	4	34	66	0	0	12	5	0	30	0	28	79	17	0	0	0	0	0	0	0	5	10	0	6	1
04:45 PM	5	27	62	0	0	15	7	0	39	0	10	52	11	0	0	0	0	0	0	0	5	19	0	9	0
04:50 PM	7	28	66	0	0	8	7	0	20	0	13	81	28	0	0	0	0	0	0	0	9	7	0	3	0
04:55 PM	4	30	64	0	0	12	10	0	32	0	24	75	22	0	0	0	0	0	0	0	5	16	0	6	0
05:00 PM	7	32	45	0	0	19	5	0	36	0	20	71	21	0	0	0	0	0	0	0	7	18	0	5	0
05:05 PM	9	40	63	0	0	24	13	0	28	0	31	62	19	0	0	0	0	0	0	0	16	7	0	6	1
05:10 PM	11	14	96	0	0	19	5	0	34	0	17	83	18	0	0	0	0	0	0	0	5	9	0	4	0
05:15 PM	5	2	85	0	0	14	10	0	38	0	25	67	21	0	0	0	0	0	0	0	8	14	0	7	1
05:20 PM	7	13	50	0	0	23	17	0	52	0	23	74	25	0	0	0	0	0	0	0	9	8	0	6	0
05:25 PM	11	8	98	0	0	15	3	0	38	0	15	67	24	0	0	0	0	0	0	0	5	5	0	11	1
05:30 PM	15	11	70	0	0	18	16	1	32	0	17	63	19	0	0	0	0	0	0	0	1	11	0	2	0
05:35 PM	9	19	53	0	0	17	6	0	40	0	17	62	24	0	0	0	0	0	0	0	6	3	0	12	0
05:40 PM	4	15	55	0	0	17	10	0	38	0	19	54	22	0	0	0	0	0	0	0	11	13	0	9	1
05:45 PM	8	11	42	0	0	23	12	0	25	0	16	58	28	0	0	0	0	0	0	0	4	8	0	6	0
05:50 PM	13	9	54	0	0	14	11	0	44	0	12	54	19	0	0	0	0	0	0	0	4	14	0	8	0
05:55 PM	9	14	51	0	0	15	6	0	30	0	16	54	28	0	0	0	0	0	0	0	2	12	0	9	0
Total	**180**	**471**	**1520**	**0**	**0**	**391**	**197**	**2**	**794**	**0**	**444**	**1591**	**459**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**154**	**284**	**0**	**153**	**5**

Peak Hour: 4:40 PM - 5:40 PM
Peak 15: 5:05 PM - 5:20 PM
PHF: 0.940924

	Right	Right to I-8	Thru	Left	Peds	Right	Thru	Left to I-80	Left	Peds	Right	Thru	Left	Left to I-80	Peds	Right to Si	Right to I-8	Left to Sier	Left to I-80	Peds	Right to I-8	Right	Thru	Left	Peds
Total Volume	94	258	818	0	0	196	104	1	419	0	240	836	249	0	0	0	0	0	0	0	81	127	0	77	4
Total Truck	1	8	21	0	0	10	2	0	11	0	4	21	2	0	0	0	0	0	0	0	0	2	0	0	0
Truck %	1%	3%	3%			5%	2%	0%	3%		2%	3%	1%								0%	2%		0%	0%

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

Location: Sierra College Blvd -- I-80 EB Ramps
Start Date: 11/17/2016
Site Code: 13963309

	Sierra College Blvd Southbound					I-80 On-Ramp Southwestbound					I-80 EB Ramps Westbound					Sierra College Blvd Northbound					I-80 EB Ramps Eastbound				
Start Time	Right	Thru	Left	Hard Left to I-80 On-Ramp	Peds	Hard Right to Sierra College Blvd	Bear Right to I-80 EB Ramps	Bear Left to Sierra College Blvd	Hard Left to I-80 EB Ramps	Peds	Hard Right to I-80 On-Ramp	Right	Thru	Left	Peds	Right	Bear Right to I-80 On-Ramp	Thru	Left	Peds	Right	Thru	Bear Left to I-80 On-Ramp	Left	Peds
07:00 AM	4	41	10	0	0	0	0	0	0	0	5	8	0	4	0	0	12	27	0	0	8	4	0	13	0
07:05 AM	9	56	5	0	0	0	0	0	0	0	1	6	0	5	0	2	18	23	0	0	6	9	0	11	0
07:10 AM	10	48	13	0	0	0	0	0	0	0	5	5	0	5	0	2	26	28	0	0	4	14	0	17	0
07:15 AM	4	63	14	0	0	0	0	0	0	0	6	10	0	2	0	1	25	21	0	0	3	9	1	25	0
07:20 AM	12	66	13	0	0	0	0	0	0	0	7	10	0	3	0	0	23	34	0	0	3	15	0	18	0
07:25 AM	6	70	4	0	0	0	0	0	0	0	5	4	0	6	0	0	33	22	0	0	1	5	1	23	0
07:30 AM	8	77	15	0	0	0	0	0	0	0	9	10	0	2	0	1	44	26	0	0	8	13	0	16	0
07:35 AM	9	77	18	0	0	0	0	0	0	0	6	7	0	2	0	2	28	20	0	0	13	7	0	28	0
07:40 AM	9	87	9	0	0	0	0	0	0	0	6	9	0	5	1	2	24	32	0	0	25	6	0	33	0
07:45 AM	7	77	9	0	0	0	0	0	0	0	7	9	0	4	0	1	30	35	0	0	19	7	0	24	0
07:50 AM	16	135	7	0	0	0	0	0	0	0	5	6	0	4	0	0	37	41	0	0	36	6	1	21	0
07:55 AM	15	91	13	0	0	0	0	0	0	0	7	10	0	1	0	4	28	33	0	0	12	7	0	19	0
08:00 AM	22	74	11	0	0	0	0	0	0	0	2	7	0	3	0	5	22	27	0	0	11	7	0	35	0
08:05 AM	15	75	8	0	0	0	0	0	0	0	5	9	0	3	0	0	28	31	0	0	13	11	0	21	0
08:10 AM	7	62	12	0	0	0	0	0	0	0	8	8	0	5	0	0	19	23	0	0	7	11	0	25	0
08:15 AM	15	98	29	0	0	0	0	0	0	0	4	5	0	3	0	0	28	38	0	0	4	4	0	22	0
08:20 AM	15	47	18	0	0	0	0	0	0	0	7	9	0	0	0	0	21	23	0	0	14	11	0	24	0
08:25 AM	14	76	17	0	0	0	0	0	0	0	7	6	0	4	0	2	20	14	0	0	11	8	0	23	0
08:30 AM	25	70	21	0	0	0	0	0	0	0	7	7	0	4	0	2	30	25	0	0	12	9	0	24	0
08:35 AM	21	52	18	0	1	0	0	0	0	0	5	10	0	2	0	1	15	16	0	0	12	12	0	29	0
08:40 AM	24	49	18	0	0	0	0	0	0	0	2	9	0	5	0	2	17	23	0	0	11	5	0	24	0
08:45 AM	7	45	14	0	0	0	0	0	0	0	5	11	0	1	0	4	15	32	0	0	4	20	0	17	0
08:50 AM	5	57	17	0	0	0	0	0	0	0	9	4	0	4	0	4	22	35	0	0	7	7	0	21	0
08:55 AM	18	69	18	0	0	0	0	0	0	0	4	7	0	3	0	6	12	24	0	0	6	9	0	34	0
Total	**297**	**1662**	**331**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**134**	**186**	**0**	**80**	**1**	**41**	**577**	**653**	**0**	**0**	**250**	**216**	**3**	**547**	**0**

Peak Hour: 7:35 AM - 8:35 AM
Peak 15: 7:40 AM - 7:55 AM
PHF: 0.870581

	Right	Thru	Left	Hard Left t	Peds	Hard Right	Bear Right	Bear Left t	Hard Left t	Peds	Hard Right	Right	Thru	Left	Peds	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left t	Left	Peds
Total Volume	169	969	172	0	0	0	0	0	0	0	71	92	0	38	1	18	315	342	0	0	177	94	1	299	0
Total Truck	16	22	4	0	0	0	0	0	0	0	5	2	0	1	0	1	23	23	0	0	13	3	0	21	0
Truck %	9%	2%	2%								7%	2%		3%	0%	6%	7%	7%			7%	3%	0%	7%	

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

Location: Sierra College Blvd -- I-80 EB Ramps
Start Date: 11/17/2016
Site Code: 13963310

	Sierra College Blvd Southbound					I-80 On-Ramp Southwestbound					I-80 EB Ramps Westbound					Sierra College Blvd Northbound					I-80 EB Ramps Eastbound				
Start Time	Right	Thru	Left	Hard Left to I-80 On-Ramp	Peds	Hard Right to Sierra College Blvd	Bear Right to I-80 EB Ramps	Bear Left to Sierra College Blvd	Hard Left to I-80 EB Ramps	Peds	Hard Right to I-80 On-Ramp	Right	Thru	Left	Peds	Right	Bear Right to I-80 On-Ramp	Thru	Left	Peds	Right	Thru	Bear Left to I-80 On-Ramp	Left	Peds
04:00 PM	29	52	20	0	0	0	0	0	0	0	25	23	0	7	0	8	23	42	0	0	6	20	0	25	0
04:05 PM	28	58	23	0	0	0	0	0	0	0	19	16	0	7	0	6	45	54	0	0	8	14	0	21	0
04:10 PM	23	56	20	0	0	0	0	0	0	0	23	26	0	12	0	3	53	56	0	0	4	15	0	40	0
04:15 PM	22	63	32	0	0	0	0	0	0	0	16	22	0	3	0	6	47	57	0	0	2	16	0	35	0
04:20 PM	31	43	16	0	0	0	0	0	0	0	15	28	0	6	0	3	26	51	0	0	4	10	1	37	0
04:25 PM	27	76	22	0	0	0	0	0	0	0	30	22	0	6	0	3	50	53	0	0	7	11	0	16	0
04:30 PM	28	44	27	0	0	0	0	0	0	0	23	24	0	6	0	8	44	50	0	0	3	19	0	28	0
04:35 PM	19	58	23	0	0	0	0	0	0	0	19	25	0	10	0	8	26	52	0	0	1	25	0	37	0
04:40 PM	30	49	17	0	0	0	0	0	0	0	25	23	0	12	0	15	37	52	0	0	3	6	0	39	0
04:45 PM	27	74	25	0	0	0	0	0	0	0	23	22	0	7	0	6	37	51	0	0	3	17	1	25	0
04:50 PM	22	35	25	0	0	0	0	0	0	0	18	18	0	12	0	2	49	62	0	0	4	22	0	29	0
04:55 PM	27	69	15	0	0	0	0	0	0	0	13	25	0	4	0	17	42	65	0	0	8	22	0	23	0
05:00 PM	35	55	25	0	0	0	0	0	0	0	25	20	0	7	0	3	58	72	0	0	4	14	0	30	0
05:05 PM	21	58	13	0	0	0	0	0	0	0	17	28	0	14	0	9	40	60	0	0	7	20	0	30	0
05:10 PM	29	73	18	0	0	0	0	0	0	0	22	28	0	8	0	3	46	54	0	0	7	26	0	31	0
05:15 PM	27	72	36	0	0	0	0	0	0	0	22	22	0	3	0	7	46	80	0	0	6	14	0	20	0
05:20 PM	25	64	18	0	0	0	0	0	0	0	18	26	0	10	0	4	38	47	0	0	3	19	0	42	0
05:25 PM	25	75	26	0	0	0	0	0	0	0	14	18	0	3	0	6	40	60	0	0	2	10	0	28	0
05:30 PM	21	69	22	0	0	0	0	0	0	0	20	24	0	8	0	8	26	35	0	0	7	25	0	34	0
05:35 PM	32	73	24	0	0	0	0	0	0	0	11	26	0	9	0	3	39	56	0	0	5	13	0	21	0
05:40 PM	28	51	26	0	0	0	0	0	0	0	12	23	0	7	0	6	45	53	0	0	2	18	0	31	0
05:45 PM	18	53	32	0	0	0	0	0	0	0	22	13	0	6	0	1	39	39	0	0	4	17	0	31	0
05:50 PM	21	47	19	0	0	0	0	0	0	0	26	15	0	11	0	2	27	53	0	0	5	12	0	46	0
05:55 PM	26	49	32	0	0	0	0	0	0	0	18	22	0	4	0	2	40	43	0	0	5	14	0	29	0
Total	**621**	**1416**	**556**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**476**	**539**	**0**	**182**	**0**	**139**	**963**	**1297**	**0**	**0**	**110**	**399**	**2**	**728**	**0**

Peak Hour: 4:20 PM - 5:20 PM
Peak 15: 5:10 PM - 5:25 PM
PHF: 0.949607

	Right	Thru	Left	Hard Left t	Peds	Hard Right	Bear Right	Bear Left t	Hard Left t	Peds	Hard Right	Right	Thru	Left	Peds	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left t	Left	Peds
Total Volume	348	770	280	0	0	0	0	0	0	0	270	311	0	105	0	88	539	749	0	0	60	225	2	387	0
Total Trucks	5	24	2	0	0	0	0	0	0	0	0	4	0	1	0	0	8	20	0	0	1	1	0	8	0
Truck %	1%	3%	1%								0%	1%		1%		0%	1%	3%			2%	0%	0%	2%	

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

Location: Sierra College Blvd -- I-80 EB Ramps
Date: 1/28/2017
Site Code: 14088505

	Sierra College Blvd Southbound					On Ramp Southwestbound					I-80 EB Ramps Westbound					Sierra College Blvd Northbound					I-80 EB Ramps Eastbound				
Start Time	Right	Thru	Left	Hard Left	U-Turns	Hard Right	Bear Right	Bear Left	Hard Left	U-Turns	Hard Right	Right	Thru	Left	U-Turns	Right	Bear Right	Thru	Left	U-Turns	Right	Thru	Bear Left	Left	U-Turns
11:00 AM	13	28	13	0	0	0	0	0	0	0	12	15	0	8	0	4	13	45	0	0	2	29	0	29	0
11:05 AM	17	25	23	0	0	0	0	0	0	0	12	23	0	7	0	10	12	31	0	1	6	15	0	21	0
11:10 AM	11	46	28	0	0	0	0	0	0	0	16	12	0	4	1	10	24	39	0	1	7	19	0	24	0
11:15 AM	17	42	33	0	0	0	0	0	0	0	8	24	0	6	0	7	17	23	0	0	4	17	0	12	0
11:20 AM	18	36	31	0	0	0	0	0	0	0	16	17	0	7	0	7	23	29	0	3	3	31	0	39	0
11:25 AM	22	50	31	0	0	0	0	0	0	0	21	14	0	6	0	7	17	20	0	0	6	29	0	25	0
11:30 AM	17	39	28	0	0	0	0	0	0	0	12	25	0	10	1	14	16	20	0	1	6	14	0	20	0
11:35 AM	10	34	33	0	0	0	0	0	0	0	13	26	0	4	0	5	20	31	0	0	8	23	0	10	0
11:40 AM	19	41	37	0	0	0	0	0	0	0	27	30	0	9	0	6	21	28	0	2	3	21	0	25	0
11:45 AM	22	29	30	0	0	0	0	0	0	0	20	17	0	7	0	9	31	44	0	1	2	37	0	32	0
11:50 AM	27	38	38	0	0	0	0	0	0	0	18	25	0	10	0	2	23	56	0	3	3	13	0	21	0
11:55 AM	13	35	44	0	0	0	0	0	0	0	23	26	0	11	0	6	19	34	0	1	7	22	0	38	0
12:00 PM	22	47	16	0	0	0	0	0	0	0	20	29	0	11	1	8	13	26	0	2	3	37	0	24	0
12:05 PM	20	37	21	0	0	0	0	0	0	0	17	23	0	4	0	12	24	43	0	0	2	22	0	22	0
12:10 PM	8	36	56	0	0	0	0	0	0	0	15	34	0	10	0	9	17	22	0	1	6	12	0	28	0
12:15 PM	25	50	45	0	0	0	0	0	0	0	26	27	0	8	0	8	9	31	0	0	7	18	0	37	0
12:20 PM	14	46	28	0	0	0	0	0	0	0	13	31	0	9	0	6	32	45	0	0	3	26	0	40	0
12:25 PM	17	38	49	0	0	0	0	0	0	0	19	31	0	7	0	5	19	22	0	1	3	20	0	34	0
12:30 PM	12	55	43	0	0	0	0	0	0	0	12	33	0	14	0	9	21	32	0	0	5	23	0	32	0
12:35 PM	20	42	25	0	0	0	0	0	0	0	18	29	0	5	1	10	19	36	0	5	6	30	0	40	0
12:40 PM	11	33	32	0	0	0	0	0	0	0	17	31	0	8	0	10	33	37	0	1	8	23	0	21	0
12:45 PM	20	32	30	0	0	0	0	0	0	0	22	28	0	6	0	6	15	36	0	0	9	22	0	36	0
12:50 PM	18	41	49	0	0	0	0	0	0	0	20	31	0	10	1	9	14	23	0	1	5	27	0	25	0
12:55 PM	16	41	30	0	0	0	0	0	0	0	24	21	0	12	0	10	18	49	0	0	7	21	0	44	0
Totals	**409**	**941**	**793**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**421**	**602**	**0**	**193**	**5**	**189**	**470**	**802**	**0**	**24**	**121**	**551**	**0**	**679**	**0**

Peak Hour: 11:45 AM - 12:45 PM
Peak 15-Min: 12:20 PM - 12:35 PM
PHF: 0.969

	Right	Thru	Left	Hard Left	U-Turns	Hard Right	Bear Right	Bear Left	Hard Left	U-Turns	Hard Right	Right	Thru	Left	U-Turns	Right	Bear Right	Thru	Left	U-Turns	Right	Thru	Bear Left	Left	U-Turns
Total Volume	219	494	432	0	0	0	0	0	0	0	228	335	0	105	2	90	248	419	0	16	50	281	0	373	0
Total Trucks	8	15	3	0	0	0	0	0	0	0	5	1	0	0	0	0	8	16	0	0	2	5	0	8	0
Truck %	4%	3%	1%								2%	0%		0%	0%	0%	3%	4%		0%	4%	2%		2%	

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Schriber Way

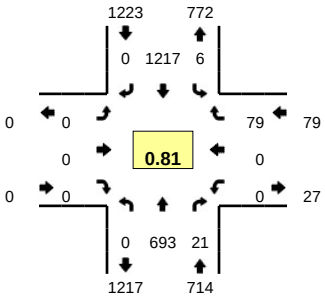
CITY/STATE: Placer, CA

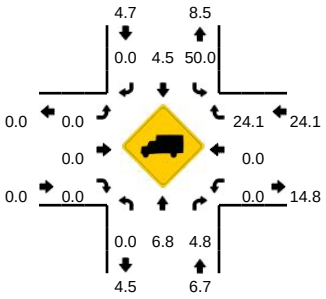
QC JOB #: 13963317

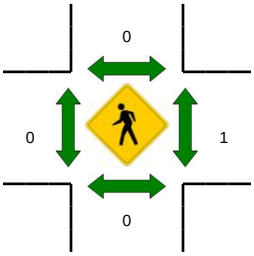
DATE: Thu, Nov 17 2016

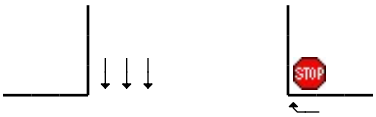
Peak-Hour: 7:20 AM -- 8:20 AM

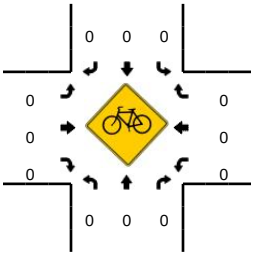
Peak 15-Min: 7:40 AM -- 7:55 AM

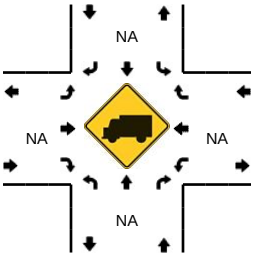


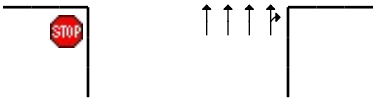


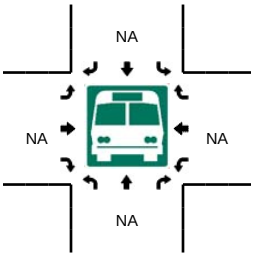












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Schriber Way (Eastbound)				Schriber Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	34	2	0	1	61	0	0	0	0	0	0	0	0	4	0	102	
7:05 AM	0	40	0	0	1	63	0	0	0	0	0	0	0	0	5	0	109	
7:10 AM	0	53	1	0	0	58	0	0	0	0	0	0	0	0	2	0	114	
7:15 AM	0	51	0	0	0	70	0	0	0	0	0	0	0	0	4	0	125	
7:20 AM	0	63	2	0	0	79	0	0	0	0	0	0	0	0	4	0	148	
7:25 AM	0	41	1	0	1	92	0	0	0	0	0	0	0	0	7	0	142	
7:30 AM	0	68	4	0	1	92	0	0	0	0	0	0	0	0	4	0	169	
7:35 AM	0	54	2	0	1	97	0	0	0	0	0	0	0	0	4	0	158	
7:40 AM	0	51	1	0	3	121	0	0	0	0	0	0	0	0	6	0	182	
7:45 AM	0	76	5	0	0	109	0	0	0	0	0	0	0	0	8	0	198	
7:50 AM	0	62	0	0	0	172	0	0	0	0	0	0	0	0	10	0	244	
7:55 AM	0	55	0	0	0	109	0	0	0	0	0	0	0	0	9	0	173	1864
8:00 AM	0	46	1	0	0	95	0	0	0	0	0	0	0	0	8	0	150	1912
8:05 AM	0	62	1	0	0	81	0	0	0	0	0	0	0	0	6	0	150	1953
8:10 AM	0	44	2	0	0	77	0	0	0	0	0	0	0	0	8	0	131	1970
8:15 AM	0	71	2	0	0	93	0	0	0	0	0	0	0	0	5	0	171	2016
8:20 AM	0	32	2	0	0	63	0	0	0	0	0	0	0	0	5	0	102	1970
8:25 AM	0	36	1	0	2	89	0	0	0	0	0	0	0	0	4	0	132	1960
8:30 AM	0	56	3	0	0	83	0	0	0	0	0	0	0	0	6	0	148	1939
8:35 AM	0	42	1	0	1	69	0	0	0	0	0	0	0	0	1	0	114	1895
8:40 AM	0	43	2	0	0	70	0	0	0	0	0	0	0	0	3	0	118	1831
8:45 AM	0	42	0	0	0	58	0	0	0	0	0	0	0	0	7	0	107	1740
8:50 AM	0	59	0	0	0	73	0	0	0	0	0	0	0	0	4	0	136	1632
8:55 AM	0	45	2	0	0	80	0	0	0	0	0	0	0	0	2	0	129	1588

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	756	24	0	12	1608	0	0	0	0	0	0	0	0	96	0	2496
Heavy Trucks	0	60	4		8	44	0		0	0	0		0	0	32		148
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Schriber Way

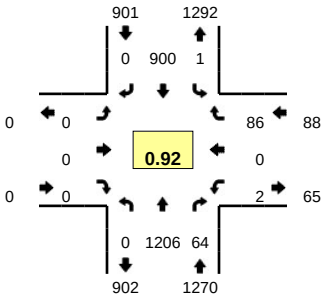
CITY/STATE: Placer, CA

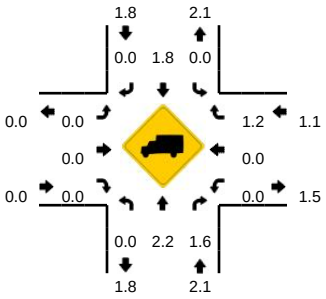
QC JOB #: 13963318

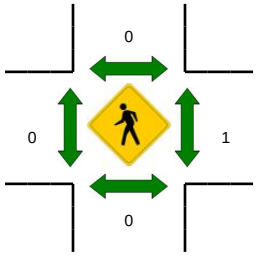
DATE: Thu, Nov 17 2016

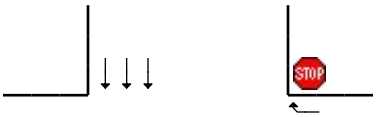
Peak-Hour: 4:40 PM -- 5:40 PM

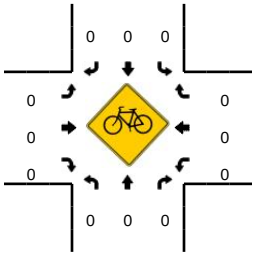
Peak 15-Min: 4:55 PM -- 5:10 PM

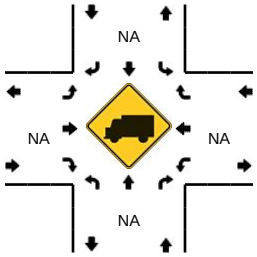


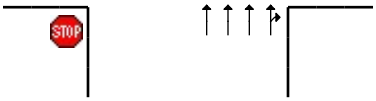


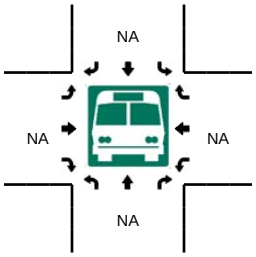












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Schriber Way (Eastbound)				Schriber Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	74	6	0	0	67	0	0	0	0	0	0	0	0	5	0	152	
4:05 PM	0	88	2	0	0	74	0	0	0	0	0	0	0	0	4	0	168	
4:10 PM	0	101	3	0	0	69	0	0	0	0	0	0	0	0	9	0	182	
4:15 PM	0	104	2	0	0	77	0	0	0	0	0	0	0	0	6	0	189	
4:20 PM	0	88	5	0	1	65	0	0	0	0	0	0	1	0	4	0	164	
4:25 PM	0	88	6	0	0	86	0	0	0	0	0	0	0	0	10	0	190	
4:30 PM	0	87	5	0	0	55	0	0	0	0	0	0	0	0	8	0	155	
4:35 PM	0	84	5	0	0	70	0	0	0	0	0	0	1	0	11	0	171	
4:40 PM	0	97	7	0	0	61	0	0	0	0	0	0	0	0	10	0	175	
4:45 PM	0	93	5	0	0	86	0	0	0	0	0	0	0	0	7	0	191	
4:50 PM	0	104	8	0	0	54	0	0	0	0	0	0	0	0	8	0	174	
4:55 PM	0	108	7	0	1	83	0	0	0	0	0	0	1	0	11	0	211	2122
5:00 PM	0	139	4	0	0	68	0	0	0	0	0	0	0	0	6	0	217	2187
5:05 PM	0	91	11	0	0	77	0	0	0	0	0	0	1	0	8	0	188	2207
5:10 PM	0	110	1	0	0	82	0	0	0	0	0	0	0	0	6	0	199	2224
5:15 PM	0	113	2	0	0	83	0	0	0	0	0	0	0	0	7	0	205	2240
5:20 PM	0	90	4	0	0	67	0	0	0	0	0	0	0	0	7	0	168	2244
5:25 PM	0	95	5	0	0	81	0	0	0	0	0	0	0	0	5	0	186	2240
5:30 PM	0	81	3	0	0	82	0	0	0	0	0	0	0	0	1	0	167	2252
5:35 PM	0	85	7	0	0	76	0	0	0	0	0	0	0	0	10	0	178	2259
5:40 PM	0	96	5	0	0	65	0	0	0	0	0	0	0	0	2	0	168	2252
5:45 PM	0	77	5	0	0	63	0	0	0	0	0	0	0	0	5	0	150	2211
5:50 PM	0	77	5	0	0	65	0	0	0	0	0	0	0	0	9	0	156	2193
5:55 PM	0	78	3	0	0	57	0	0	0	0	0	0	1	0	6	0	145	2127

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1352	88	0	4	912	0	0	0	0	0	0	8	0	100	0	2464
Heavy Trucks	0	16	0		0	16	0		0	0	0		0	0	0		32
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: A2 - Sierra†College†Blvd -- Schriber†Wy

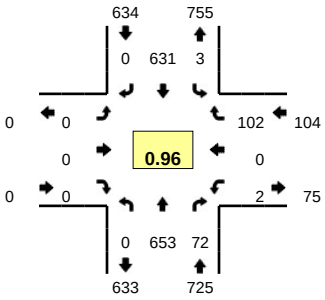
CITY/STATE: Placer, CA

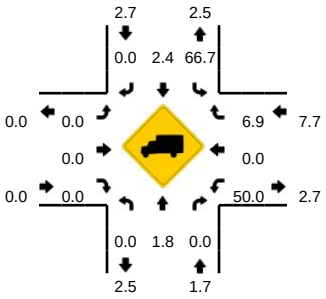
QC JOB #: 14088509

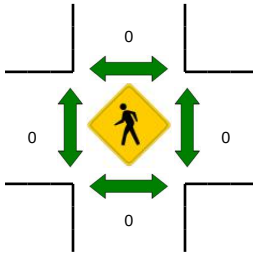
DATE: Sat, Jan 28 2017

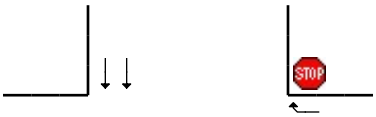
Peak-Hour: 11:50 AM -- 12:50 PM

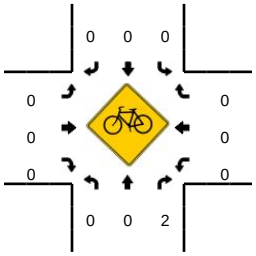
Peak 15-Min: 12:30 PM -- 12:45 PM

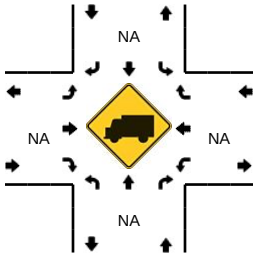


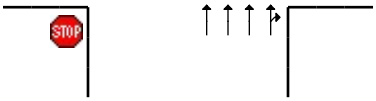


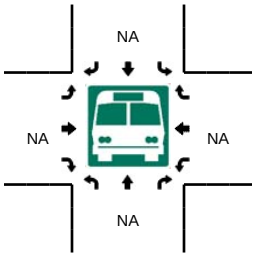












5-Min Count Period Beginning At	A2 - Sierra†College†Blvd (Northbound)				A2 - Sierra†College†Blvd (Southbound)				Schriber†Wy (Eastbound)				Schriber†Wy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	57	3	0	0	36	0	0	0	0	0	0	0	0	6	0	102	
11:05 AM	0	56	4	0	0	42	0	0	0	0	0	0	0	0	7	0	109	
11:10 AM	0	58	6	0	0	58	0	0	0	0	0	0	0	0	6	0	128	
11:15 AM	0	48	7	0	0	37	0	0	0	0	0	0	0	0	7	0	99	
11:20 AM	0	49	6	0	0	53	0	0	0	0	0	0	0	0	2	0	110	
11:25 AM	0	35	5	0	1	58	0	0	0	0	0	0	0	0	7	0	106	
11:30 AM	0	55	7	0	0	52	0	0	0	0	0	0	0	0	6	0	120	
11:35 AM	0	58	2	0	4	42	0	0	0	0	0	0	0	0	4	0	110	
11:40 AM	0	41	5	0	0	50	0	0	0	0	0	0	1	0	6	0	103	
11:45 AM	0	67	2	0	0	45	0	0	0	0	0	0	0	0	7	0	121	
11:50 AM	0	74	6	0	0	41	0	0	0	0	0	0	0	0	9	0	130	
11:55 AM	0	51	4	0	0	61	0	0	0	0	0	0	0	0	9	0	125	1363
12:00 PM	0	49	2	0	0	56	0	0	0	0	0	0	0	0	5	0	112	1373
12:05 PM	0	68	11	0	0	41	0	0	0	0	0	0	0	0	3	0	123	1387
12:10 PM	0	49	4	0	0	43	0	0	0	0	0	0	0	0	6	0	102	1361
12:15 PM	0	49	7	0	1	54	0	0	0	0	0	0	0	0	9	0	120	1382
12:20 PM	0	55	6	0	0	70	0	0	0	0	0	0	0	0	9	0	140	1412
12:25 PM	0	36	5	0	0	58	0	0	0	0	0	0	0	0	10	0	109	1415
12:30 PM	0	60	5	0	0	48	0	0	0	0	0	0	0	0	14	0	127	1422
12:35 PM	0	54	6	0	0	63	0	0	0	0	0	0	0	0	12	0	135	1447
12:40 PM	0	58	5	0	2	41	0	0	0	0	0	0	1	0	11	0	118	1462
12:45 PM	0	50	11	0	0	55	0	0	0	0	0	0	1	0	5	0	122	1463
12:50 PM	0	52	4	0	0	50	0	0	0	0	0	0	1	0	3	0	110	1443
12:55 PM	0	60	4	0	1	60	0	0	0	0	0	0	0	0	8	0	133	1451

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	688	64	0	8	608	0	0	0	0	0	0	4	0	148	0	1520
Heavy Trucks	0	4	0		8	16	0		0	0	0		0	0	24		52
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Bass Pro Dr/Dominguez Rd

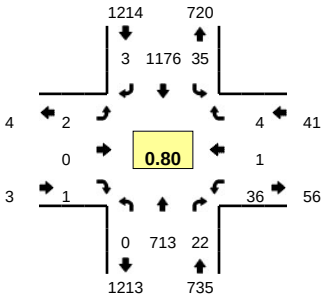
QC JOB #: 13963319

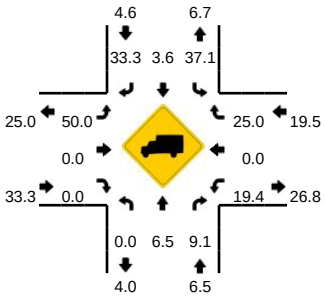
CITY/STATE: Placer, CA

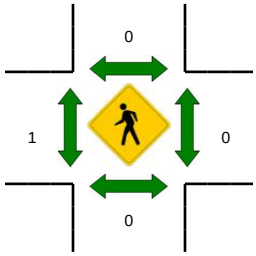
DATE: Thu, Nov 17 2016

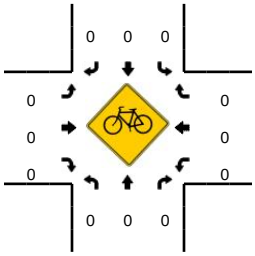
Peak-Hour: 7:20 AM -- 8:20 AM

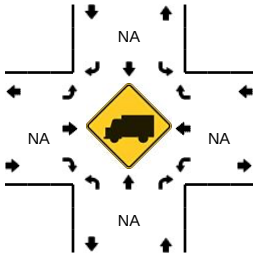
Peak 15-Min: 7:40 AM -- 7:55 AM

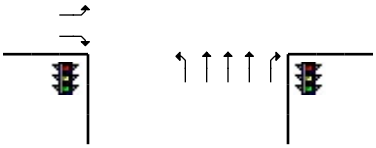


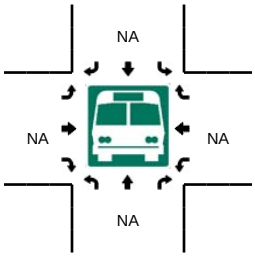












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Bass Pro Dr/Dominguez Rd (Eastbound)				Bass Pro Dr/Dominguez Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	36	6	0	6	60	0	0	0	0	0	0	0	0	0	0	108	
7:05 AM	0	37	3	0	3	52	0	0	2	0	2	0	2	0	2	0	103	
7:10 AM	0	55	3	0	1	56	1	0	2	0	2	0	3	0	2	0	125	
7:15 AM	0	54	3	0	5	68	0	0	0	0	0	0	0	0	0	0	130	
7:20 AM	0	64	2	0	4	79	0	0	0	0	0	0	3	0	0	0	152	
7:25 AM	0	42	1	0	2	80	0	0	0	0	0	0	4	0	1	0	130	
7:30 AM	0	70	1	0	1	87	0	0	0	0	0	0	2	0	0	0	161	
7:35 AM	0	55	3	0	1	101	0	1	0	0	0	0	3	0	1	0	165	
7:40 AM	0	53	3	0	3	128	0	0	0	0	0	0	2	0	0	0	189	
7:45 AM	0	82	3	0	1	101	1	0	1	0	0	0	5	1	1	0	196	
7:50 AM	0	61	3	0	3	166	0	0	1	0	0	0	2	0	0	0	236	
7:55 AM	0	57	3	0	2	118	0	0	0	0	0	0	4	0	0	0	184	1879
8:00 AM	0	45	1	0	5	92	0	0	0	0	0	0	3	0	1	0	147	1918
8:05 AM	0	64	1	0	4	68	0	0	0	0	0	0	3	0	0	0	140	1955
8:10 AM	0	45	1	0	4	72	1	0	0	0	0	0	3	0	0	0	126	1956
8:15 AM	0	75	0	0	4	84	1	0	0	0	1	0	2	0	0	0	167	1993
8:20 AM	2	35	6	0	4	64	0	0	1	0	1	0	3	0	0	0	116	1957
8:25 AM	0	36	3	0	3	77	0	0	0	0	0	0	2	0	1	0	122	1949
8:30 AM	0	59	0	0	2	76	0	0	0	0	0	0	0	0	1	0	138	1926
8:35 AM	0	42	3	0	4	63	1	0	0	0	0	0	0	0	0	0	113	1874
8:40 AM	0	46	1	0	1	78	0	0	0	0	0	0	3	0	1	0	130	1815
8:45 AM	0	40	0	0	2	53	1	0	0	0	0	0	2	0	2	0	100	1719
8:50 AM	0	61	4	0	1	64	1	0	0	0	0	0	3	0	0	0	134	1617
8:55 AM	0	47	2	0	0	79	0	0	0	0	0	0	3	0	0	0	131	1564

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	784	36	0	28	1580	4	0	8	0	0	0	36	4	4	0	2484
Heavy Trucks	0	56	4		4	40	4		4	0	0		4	0	0		116
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Bass Pro Dr/Dominguez Rd

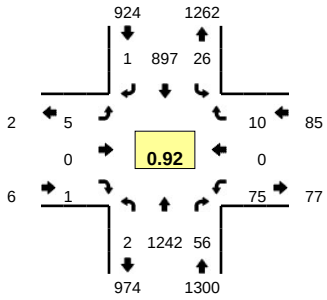
QC JOB #: 13963320

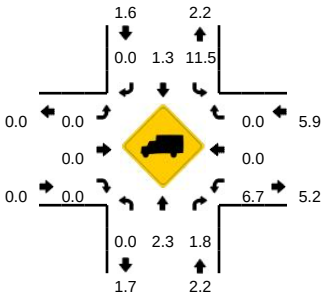
CITY/STATE: Placer, CA

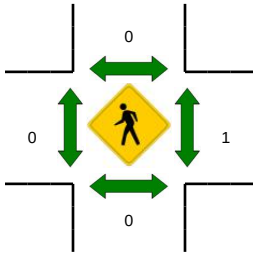
DATE: Thu, Nov 17 2016

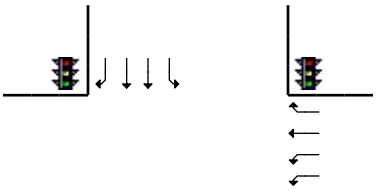
Peak-Hour: 4:40 PM -- 5:40 PM

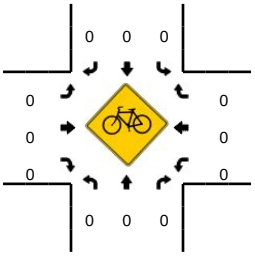
Peak 15-Min: 4:55 PM -- 5:10 PM

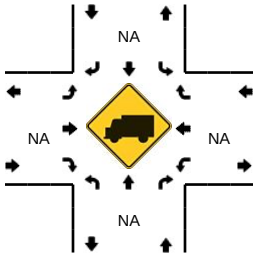


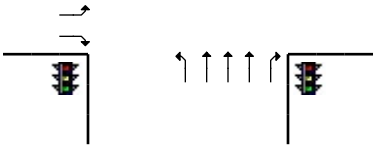


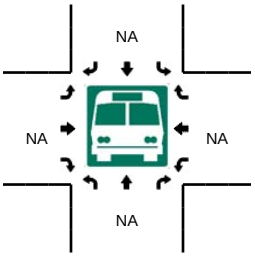












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Bass Pro Dr/Dominguez Rd (Eastbound)				Bass Pro Dr/Dominguez Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	81	4	0	4	74	0	0	0	0	0	0	3	0	0	0	167	
4:05 PM	0	93	1	0	0	74	0	0	0	0	0	0	3	0	0	0	171	
4:10 PM	0	100	6	0	1	70	0	0	1	0	0	0	1	0	2	0	181	
4:15 PM	0	104	6	0	0	75	0	0	0	0	0	0	5	0	1	0	191	
4:20 PM	0	89	4	0	1	60	0	0	0	0	0	0	2	0	1	0	157	
4:25 PM	0	93	6	0	3	80	0	0	0	0	0	0	2	0	0	0	184	
4:30 PM	0	85	4	0	5	48	0	4	0	0	0	0	2	0	3	0	151	
4:35 PM	0	86	6	0	2	61	0	0	0	0	0	0	5	0	0	0	160	
4:40 PM	0	100	5	0	0	73	1	0	0	0	0	0	4	0	2	0	185	
4:45 PM	0	94	4	0	3	69	0	1	2	0	1	0	4	0	0	0	178	
4:50 PM	0	107	1	0	0	64	0	1	2	0	0	0	6	0	0	0	181	
4:55 PM	0	113	4	0	2	76	0	1	0	0	0	0	12	0	1	0	209	2115
5:00 PM	0	141	8	0	1	76	0	1	0	0	0	0	7	0	1	0	235	2183
5:05 PM	0	100	3	0	2	73	0	0	0	0	0	0	8	0	1	0	187	2199
5:10 PM	0	112	4	0	2	87	0	0	0	0	0	0	3	0	1	0	209	2227
5:15 PM	0	112	8	0	2	81	0	0	0	0	0	0	5	0	2	0	210	2246
5:20 PM	1	93	5	0	1	72	0	0	1	0	0	0	4	0	0	0	177	2266
5:25 PM	0	100	6	0	4	71	0	1	0	0	0	0	7	0	1	0	190	2272
5:30 PM	0	81	6	1	0	83	0	0	0	0	0	0	8	0	1	0	180	2301
5:35 PM	0	89	2	0	4	72	0	0	0	0	0	0	7	0	0	0	174	2315
5:40 PM	0	101	5	0	0	66	2	0	0	0	0	0	5	0	0	0	179	2309
5:45 PM	0	80	6	0	4	58	0	0	0	0	0	0	4	0	0	0	152	2283
5:50 PM	1	77	3	0	2	70	0	0	0	0	0	0	6	0	2	0	161	2263
5:55 PM	0	82	4	0	0	56	0	0	0	0	0	0	10	0	0	0	152	2206

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1416	60	0	20	900	0	8	0	0	0	0	108	0	12	0	2524
Heavy Trucks	0	20	0		8	12	0		0	0	0		8	0	0		48
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: A3 - Sierra†College†Blvd -- Bass†Pro†Dr/Dominguez Rd

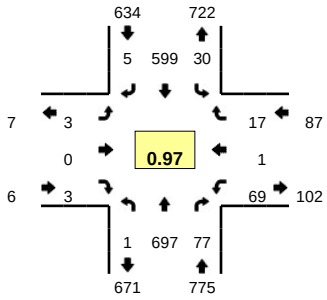
QC JOB #: 14088510

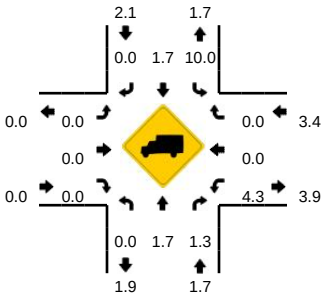
CITY/STATE: Placer, CA

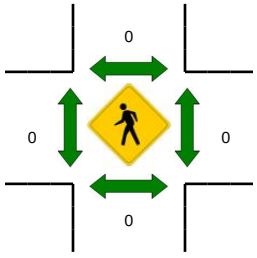
DATE: Sat, Jan 28 2017

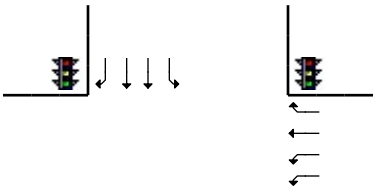
Peak-Hour: 11:50 AM -- 12:50 PM

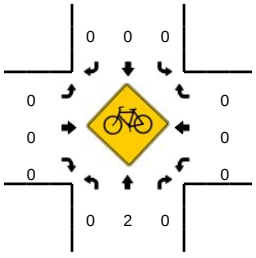
Peak 15-Min: 12:35 PM -- 12:50 PM

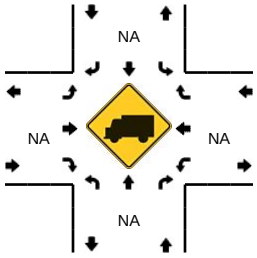


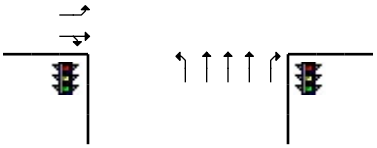


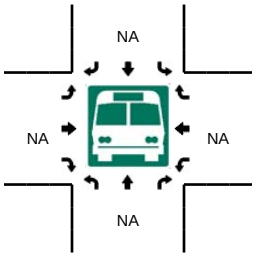












5-Min Count Period Beginning At	A3 - Sierra†College†Blvd (Northbound)				A3 - Sierra†College†Blvd (Southbound)				Bass†Pro†Dr/Dominguez Rd (Eastbound)				Bass†Pro†Dr/Dominguez Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	58	1	0	1	33	0	0	0	0	0	0	5	0	0	0	98	
11:05 AM	0	59	4	0	6	39	0	0	0	0	0	0	4	0	0	0	112	
11:10 AM	0	63	3	0	1	54	0	0	0	0	0	0	1	0	1	0	123	
11:15 AM	1	53	5	0	1	38	0	1	0	0	1	0	1	0	1	0	102	
11:20 AM	0	55	7	0	1	52	0	0	0	0	1	0	6	0	2	0	124	
11:25 AM	1	37	5	0	4	53	0	1	0	0	1	0	2	0	1	0	105	
11:30 AM	0	58	7	0	2	48	0	1	1	0	1	0	5	0	3	0	126	
11:35 AM	0	58	6	0	2	33	0	0	0	0	0	0	5	0	2	0	106	
11:40 AM	0	44	3	0	3	53	0	0	0	0	0	0	1	0	2	0	106	
11:45 AM	0	68	3	0	1	48	2	0	0	0	0	0	0	0	1	0	123	
11:50 AM	0	77	4	0	3	37	0	0	1	0	1	0	8	0	0	0	131	
11:55 AM	0	54	6	0	0	61	0	1	0	0	0	0	6	0	0	0	128	1384
12:00 PM	0	48	11	0	2	56	0	0	0	0	0	0	4	0	1	0	122	1408
12:05 PM	0	80	9	0	0	41	0	0	0	0	0	0	3	0	1	0	134	1430
12:10 PM	0	51	10	0	3	34	1	0	0	0	1	0	5	0	2	0	107	1414
12:15 PM	0	52	2	0	3	56	1	1	0	0	0	0	4	0	2	0	121	1433
12:20 PM	0	60	2	0	2	62	0	0	1	0	0	0	2	0	1	0	130	1439
12:25 PM	0	40	8	0	1	57	0	0	0	0	0	0	3	0	1	0	110	1444
12:30 PM	0	63	3	0	3	49	0	0	0	0	0	0	11	0	1	0	130	1448
12:35 PM	1	56	8	0	4	55	0	0	0	0	0	0	7	0	3	0	134	1476
12:40 PM	0	61	12	0	2	40	1	0	1	0	0	0	5	0	2	0	124	1494
12:45 PM	0	55	2	0	2	51	2	3	0	0	1	0	11	1	3	0	131	1502
12:50 PM	0	53	6	0	2	47	0	0	0	0	1	0	8	0	2	0	119	1490
12:55 PM	0	64	4	0	3	53	0	0	1	0	1	0	5	0	0	0	131	1493

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	688	88	0	32	584	12	12	4	0	4	0	92	4	32	0	1556
Heavy Trucks	0	8	0		0	20	0		0	0	0		4	0	0		32
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Stadium Dwy

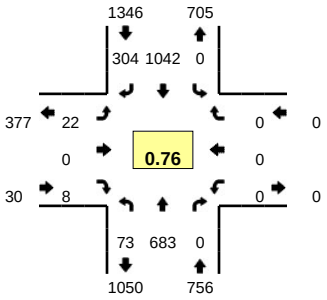
CITY/STATE: Placer, CA

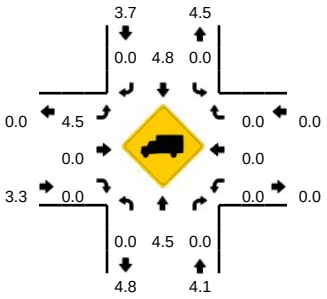
QC JOB #: 13963321

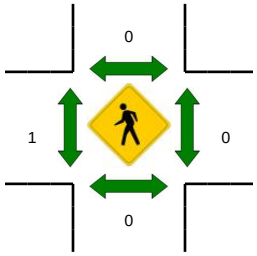
DATE: Wed, Nov 30 2016

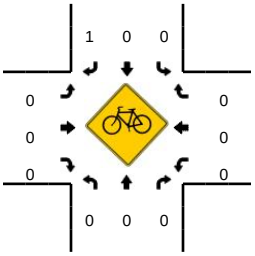
Peak-Hour: 7:25 AM -- 8:25 AM

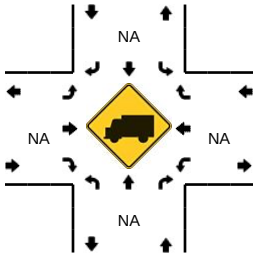
Peak 15-Min: 7:45 AM -- 8:00 AM

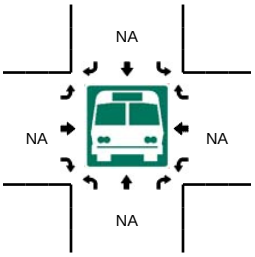












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Stadium Dwy (Eastbound)				Stadium Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	29	0	0	0	48	5	0	0	0	1	0	0	0	0	0	86	
7:05 AM	2	42	0	0	0	37	4	0	2	0	0	0	0	0	0	0	87	
7:10 AM	1	47	0	0	0	68	4	0	0	0	0	0	0	0	0	0	120	
7:15 AM	2	47	0	0	0	51	8	0	1	0	0	0	0	0	0	0	109	
7:20 AM	3	52	0	0	0	58	14	0	1	0	4	0	0	0	0	0	132	
7:25 AM	4	59	0	0	0	81	8	0	1	0	0	0	0	0	0	0	153	
7:30 AM	4	52	0	0	0	74	20	0	2	0	0	0	0	0	0	0	152	
7:35 AM	2	66	0	0	0	86	33	0	3	0	2	0	0	0	0	0	192	
7:40 AM	10	50	0	0	0	113	35	0	1	0	0	0	0	0	0	0	209	
7:45 AM	11	64	0	0	0	108	41	0	3	0	0	0	0	0	0	0	227	
7:50 AM	15	67	0	0	0	113	39	0	1	0	2	0	0	0	0	0	237	
7:55 AM	12	83	0	0	0	103	34	0	4	0	0	0	0	0	0	0	236	1940
8:00 AM	7	58	0	0	0	79	25	0	3	0	1	0	0	0	0	0	173	2027
8:05 AM	2	39	0	0	0	59	24	0	0	0	1	0	0	0	0	0	125	2065
8:10 AM	3	53	0	0	0	75	16	0	1	0	1	0	0	0	0	0	149	2094
8:15 AM	2	35	0	0	0	73	17	0	1	0	0	0	0	0	0	0	128	2113
8:20 AM	1	57	0	0	0	78	12	0	2	0	1	0	0	0	0	0	151	2132
8:25 AM	1	49	0	0	0	54	12	0	1	0	2	0	0	0	0	0	119	2098
8:30 AM	5	48	0	0	0	72	12	0	0	0	1	0	0	0	0	0	138	2084
8:35 AM	5	58	0	0	0	57	8	0	1	0	1	0	0	0	0	0	130	2022
8:40 AM	7	64	0	0	0	58	8	0	6	0	1	0	0	0	0	0	144	1957
8:45 AM	5	68	0	0	0	55	8	0	4	0	4	0	0	0	0	0	144	1874
8:50 AM	5	66	0	0	0	72	12	0	2	0	5	0	0	0	0	0	162	1799
8:55 AM	8	65	0	0	0	63	16	0	0	0	2	0	0	0	0	0	154	1717

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	152	856	0	0	0	1296	456	0	32	0	8	0	0	0	0	0	2800
Heavy Trucks	0	44	0		0	52	0		4	0	0		0	0	0		100
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Stadium Dwy

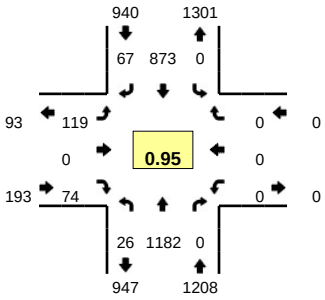
CITY/STATE: Placer, CA

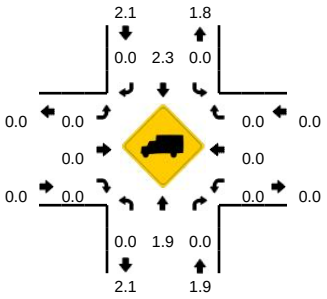
QC JOB #: 13963322

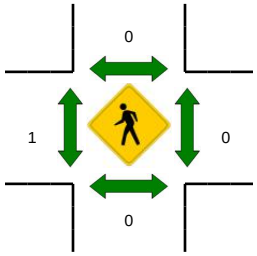
DATE: Wed, Nov 30 2016

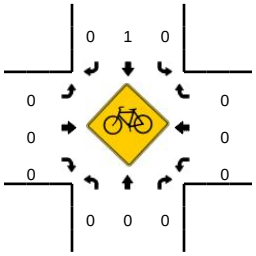
Peak-Hour: 4:35 PM -- 5:35 PM

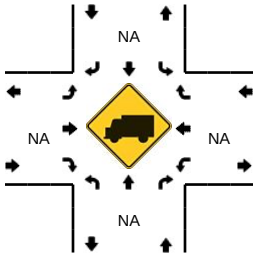
Peak 15-Min: 4:55 PM -- 5:10 PM

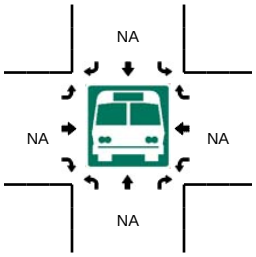












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Stadium Dwy (Eastbound)				Stadium Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	62	0	0	0	63	8	0	6	0	2	0	0	0	0	0	144	
4:05 PM	6	90	0	0	0	80	7	0	9	0	4	0	0	0	0	0	196	
4:10 PM	1	108	0	0	0	64	10	0	8	0	0	0	0	0	0	0	191	
4:15 PM	8	77	0	0	0	76	7	0	19	0	10	0	0	0	0	0	197	
4:20 PM	1	97	0	0	0	81	6	0	18	0	10	0	0	0	0	0	213	
4:25 PM	0	80	0	0	0	60	5	0	7	0	3	0	0	0	0	0	155	
4:30 PM	2	67	0	0	0	58	2	0	7	0	3	0	0	0	0	0	139	
4:35 PM	2	104	0	0	0	58	6	0	6	0	3	0	0	0	0	0	179	
4:40 PM	3	89	0	0	0	63	8	0	8	0	2	0	0	0	0	0	173	
4:45 PM	1	94	0	0	0	79	6	0	5	0	2	0	0	0	0	0	187	
4:50 PM	2	98	0	0	0	76	5	0	10	0	11	0	0	0	0	0	202	
4:55 PM	6	118	0	0	0	65	5	0	11	0	7	0	0	0	0	0	212	2188
5:00 PM	3	88	0	0	0	72	5	0	17	0	11	0	0	0	0	0	196	2240
5:05 PM	1	101	0	0	0	82	7	0	13	0	7	0	0	0	0	0	211	2255
5:10 PM	2	85	0	0	0	73	4	0	21	0	13	0	0	0	0	0	198	2262
5:15 PM	2	99	0	0	0	74	4	0	8	0	4	0	0	0	0	0	191	2256
5:20 PM	3	107	0	0	0	78	5	0	8	0	6	0	0	0	0	0	207	2250
5:25 PM	0	113	0	0	0	84	5	0	6	0	5	0	0	0	0	0	213	2308
5:30 PM	1	86	0	0	0	69	7	0	6	0	3	0	0	0	0	0	172	2341
5:35 PM	2	70	0	0	0	64	8	0	11	0	4	0	0	0	0	0	159	2321
5:40 PM	3	71	0	0	0	92	8	0	4	0	5	0	0	0	0	0	183	2331
5:45 PM	4	65	0	0	0	78	6	0	9	0	6	0	0	0	0	0	168	2312
5:50 PM	3	78	0	0	0	61	7	0	4	0	4	0	0	0	0	0	157	2267
5:55 PM	4	95	0	0	0	70	9	0	9	0	1	0	0	0	0	0	188	2243

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	1228	0	0	0	876	68	0	164	0	100	0	0	0	0	0	2476
Heavy Trucks	0	16	0		0	24	0		0	0	0		0	0	0		40
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

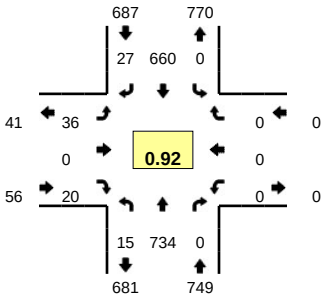
Method for determining peak hour: Total Entering Volume

LOCATION: A4 - Sierra†College†Blvd -- Stadium Dwy

CITY/STATE: Placer, CA

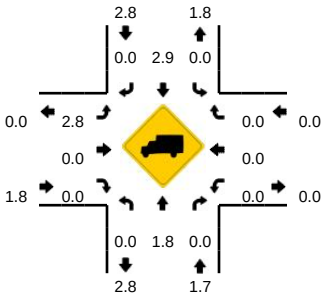
QC JOB #: 14088511

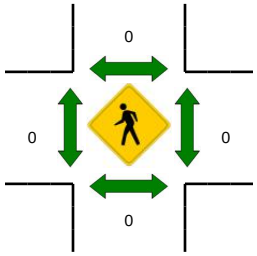
DATE: Sat, Jan 28 2017

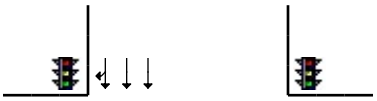


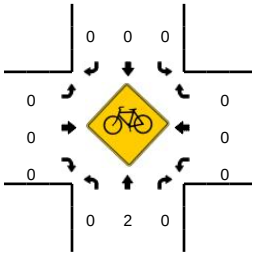
Peak-Hour: 11:55 AM -- 12:55 PM

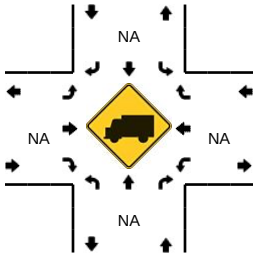
Peak 15-Min: 11:55 AM -- 12:10 PM

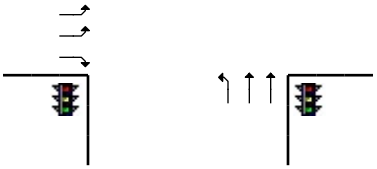


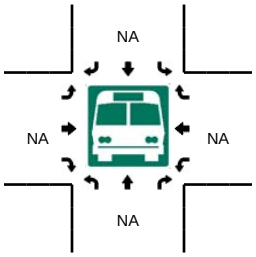












5-Min Count Period Beginning At	A4 - Sierra†College†Blvd (Northbound)				A4 - Sierra†College†Blvd (Southbound)				Stadium Dwy (Eastbound)				Stadium Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	2	67	0	0	0	37	1	0	4	0	4	0	0	0	0	0	115	
11:05 AM	2	40	0	0	0	38	2	0	6	0	1	0	0	0	0	0	89	
11:10 AM	3	56	0	0	0	56	4	0	2	0	3	0	0	0	0	0	124	
11:15 AM	4	63	0	0	0	36	4	0	4	0	3	0	0	0	0	0	114	
11:20 AM	6	53	0	0	0	51	6	0	3	0	6	0	0	0	0	0	125	
11:25 AM	3	40	0	0	0	52	6	0	3	0	1	0	0	0	0	0	105	
11:30 AM	3	64	0	0	0	48	7	0	0	0	4	0	0	0	0	0	126	
11:35 AM	1	63	0	0	0	37	3	0	2	0	1	0	0	0	0	0	107	
11:40 AM	3	59	0	0	0	50	2	0	1	0	0	0	0	0	0	0	115	
11:45 AM	3	62	0	0	0	48	2	0	0	0	4	0	0	0	0	0	119	
11:50 AM	4	62	0	0	0	47	0	0	10	0	1	0	0	0	0	0	124	
11:55 AM	0	65	0	1	0	62	3	0	7	0	7	0	0	0	0	0	145	1408
12:00 PM	0	53	0	0	0	57	4	0	8	0	1	0	0	0	0	0	123	1416
12:05 PM	1	73	0	0	0	45	3	0	10	0	6	0	0	0	0	0	138	1465
12:10 PM	0	54	0	0	0	36	1	0	3	0	1	0	0	0	0	0	95	1436
12:15 PM	2	54	0	0	0	66	1	0	1	0	1	0	0	0	0	0	125	1447
12:20 PM	1	55	0	0	0	65	1	0	3	0	0	0	0	0	0	0	125	1447
12:25 PM	2	47	0	0	0	49	2	0	1	0	0	0	0	0	0	0	101	1443
12:30 PM	0	75	0	0	0	67	4	0	1	0	1	0	0	0	0	0	148	1465
12:35 PM	2	62	0	0	0	64	0	0	2	0	1	0	0	0	0	0	131	1489
12:40 PM	2	64	0	0	0	46	0	0	0	0	1	0	0	0	0	0	113	1487
12:45 PM	2	58	0	0	0	50	1	0	0	0	0	0	0	0	0	0	111	1479
12:50 PM	2	74	0	0	0	53	7	0	0	0	1	0	0	0	0	0	137	1492
12:55 PM	1	54	0	0	0	59	4	0	4	0	0	0	0	0	0	0	122	1469

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	764	0	4	0	656	40	0	100	0	56	0	0	0	0	0	1624
Heavy Trucks	0	16	0		0	20	0		4	0	0		0	0	0		40
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Rocklin Rd

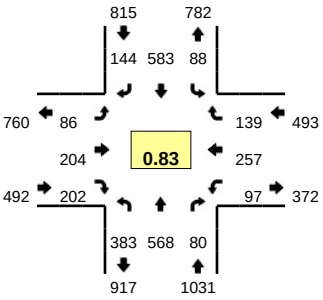
CITY/STATE: Placer, CA

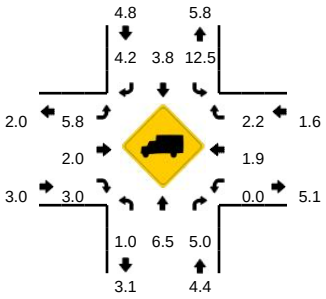
QC JOB #: 13963323

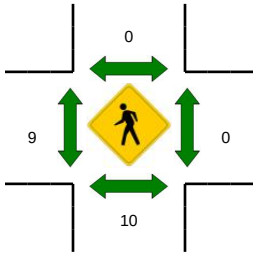
DATE: Thu, Nov 17 2016

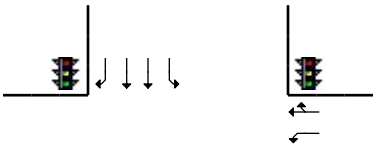
Peak-Hour: 7:25 AM -- 8:25 AM

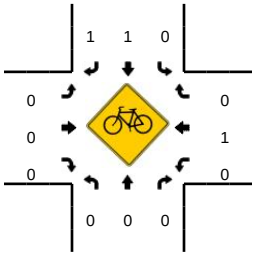
Peak 15-Min: 7:45 AM -- 8:00 AM

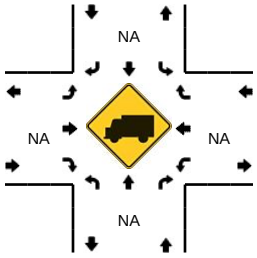


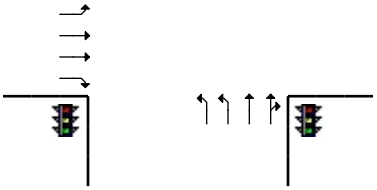


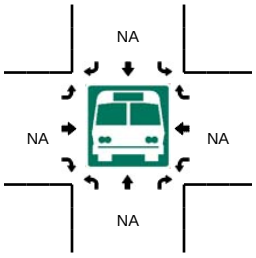












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	19	34	4	6	13	27	10	0	2	5	11	0	2	13	5	0	151	
7:05 AM	21	41	3	3	8	37	10	0	3	15	12	3	2	12	4	0	174	
7:10 AM	29	39	7	2	7	29	11	0	6	14	10	0	3	11	9	0	177	
7:15 AM	20	47	2	3	7	43	14	0	9	10	11	0	8	17	7	0	198	
7:20 AM	21	38	4	8	5	36	8	0	2	17	8	1	3	17	10	0	178	
7:25 AM	20	46	3	4	5	44	6	0	4	10	14	0	8	16	14	0	194	
7:30 AM	26	45	6	2	9	43	19	0	6	23	16	0	8	20	9	0	232	
7:35 AM	27	64	11	4	2	50	14	0	4	14	22	0	0	16	11	0	239	
7:40 AM	30	57	5	3	5	49	16	0	10	16	22	3	10	21	7	0	254	
7:45 AM	34	55	7	2	3	53	16	0	8	11	11	4	9	24	11	0	248	
7:50 AM	62	57	5	8	12	61	20	0	6	17	18	0	4	28	9	0	307	
7:55 AM	56	48	12	1	11	40	16	0	9	19	12	3	12	37	18	0	294	2646
8:00 AM	23	30	4	1	9	48	8	0	5	19	19	1	11	26	17	0	221	2716
8:05 AM	8	42	5	3	4	52	14	0	10	20	18	0	10	16	9	0	211	2753
8:10 AM	25	43	8	5	9	43	6	0	3	12	13	0	8	13	9	0	197	2773
8:15 AM	18	44	8	0	8	58	2	0	7	16	18	0	13	15	14	0	221	2796
8:20 AM	19	37	6	2	11	42	7	0	3	27	19	0	4	25	11	0	213	2831
8:25 AM	13	32	8	3	4	53	10	0	1	14	8	0	12	17	5	0	180	2817
8:30 AM	10	44	2	3	9	54	6	0	10	17	20	0	7	22	8	0	212	2797
8:35 AM	21	30	3	4	8	43	5	0	5	15	19	0	15	24	9	0	201	2759
8:40 AM	19	33	4	1	6	45	4	0	3	14	20	0	5	19	13	0	186	2691
8:45 AM	8	44	5	4	7	33	6	0	7	19	17	0	7	21	6	0	184	2627
8:50 AM	17	35	1	4	0	35	5	0	15	22	22	0	7	17	9	0	189	2509
8:55 AM	24	37	1	1	7	53	10	0	9	16	13	3	6	14	11	0	205	2420

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	608	640	96	44	104	616	208	0	92	188	164	28	100	356	152	0	3396
Heavy Trucks	4	40	4		16	20	4		4	0	0		0	12	0		104
Pedestrians		20				0				20				0			40
Bicycles	0	0	0		0	1	0		0	0	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Rocklin Rd

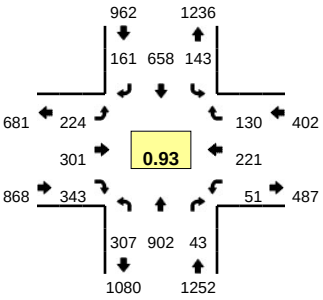
CITY/STATE: Placer, CA

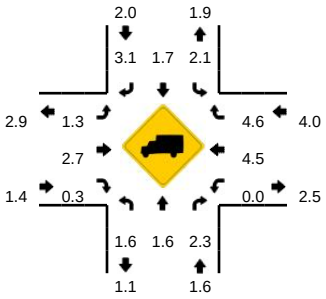
QC JOB #: 13963324

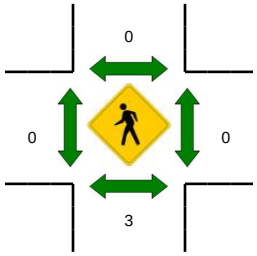
DATE: Thu, Nov 17 2016

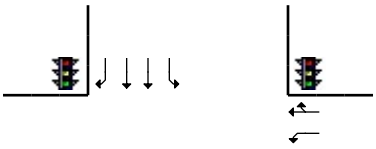
Peak-Hour: 4:40 PM -- 5:40 PM

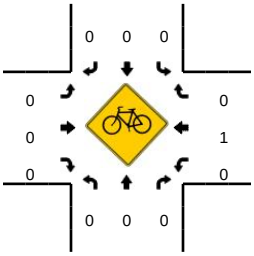
Peak 15-Min: 5:05 PM -- 5:20 PM

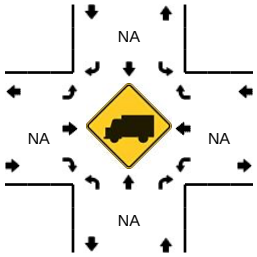


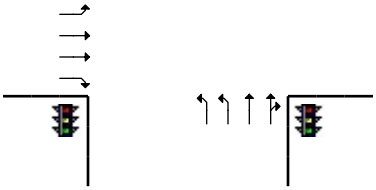


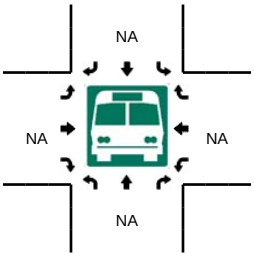












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	20	36	3	0	10	34	12	0	10	22	18	1	3	11	12	0	192	
4:05 PM	17	65	6	1	12	58	7	0	18	28	27	0	7	8	11	0	265	
4:10 PM	27	68	4	0	5	35	7	0	14	26	24	1	4	24	9	0	248	
4:15 PM	17	71	11	0	18	40	13	1	23	35	25	1	8	9	10	0	282	
4:20 PM	20	65	8	0	12	68	4	0	7	16	23	0	5	14	8	0	250	
4:25 PM	20	91	4	2	6	41	13	0	8	23	27	2	5	13	9	0	264	
4:30 PM	23	67	5	2	15	51	5	0	8	16	15	0	1	25	7	0	240	
4:35 PM	23	53	6	1	6	49	10	0	19	20	22	0	9	11	12	0	241	
4:40 PM	23	74	3	4	7	42	17	0	22	25	34	5	3	23	9	0	291	
4:45 PM	18	46	1	2	17	43	12	0	11	23	30	1	4	27	8	0	243	
4:50 PM	19	97	4	2	10	56	11	0	17	16	36	0	1	13	13	0	295	
4:55 PM	20	47	0	3	11	33	17	0	33	38	41	2	6	23	15	0	289	3100
5:00 PM	24	77	4	2	11	67	15	0	26	10	33	0	7	8	12	0	296	3204
5:05 PM	36	70	1	1	16	72	11	0	20	45	29	3	5	13	10	0	332	3271
5:10 PM	17	90	4	2	9	55	14	0	18	32	18	1	2	20	8	0	290	3313
5:15 PM	26	94	5	2	16	50	14	0	16	26	35	0	4	19	6	0	313	3344
5:20 PM	27	85	5	3	8	70	15	0	9	14	22	5	5	18	9	0	295	3389
5:25 PM	17	71	6	2	4	47	11	0	4	37	26	1	7	25	21	0	279	3404
5:30 PM	26	70	9	2	19	73	11	0	13	16	18	1	2	13	12	0	285	3449
5:35 PM	26	81	1	3	15	50	13	0	15	19	21	1	5	19	7	0	276	3484
5:40 PM	24	65	4	3	12	32	13	0	16	22	25	3	2	31	6	0	258	3451
5:45 PM	27	56	4	3	9	42	11	0	9	33	17	4	5	19	15	0	254	3462
5:50 PM	18	59	3	2	9	36	15	1	11	25	16	1	4	12	6	0	218	3385
5:55 PM	25	48	3	2	7	48	10	0	7	27	29	0	1	19	9	0	235	3331

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	316	1016	40	20	164	708	156	0	216	412	328	16	44	208	96	0	3740
Heavy Trucks	0	4	0		8	4	8		4	12	4		0	12	4		60
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

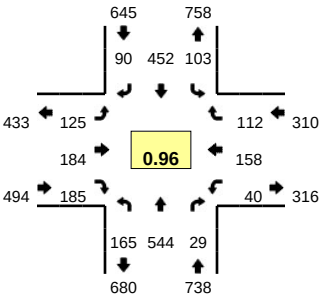
LOCATION: A5 -Sierra†College†Blvd -- Rocklin†Rd

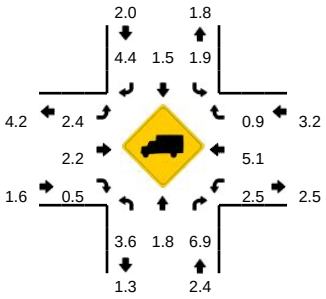
QC JOB #: 14088512

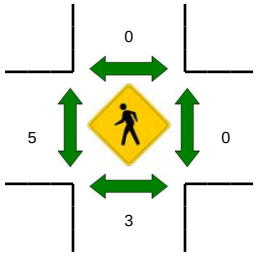
CITY/STATE: Placer, CA

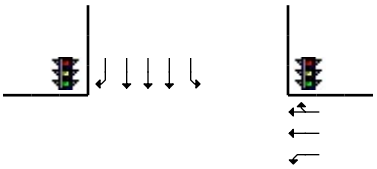
DATE: Sat, Jan 28 2017

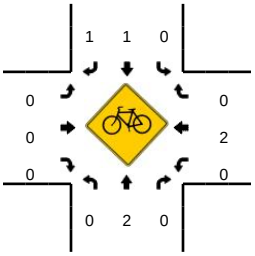
Peak-Hour: 12:00 PM -- 1:00 PM
Peak 15-Min: 12:45 PM -- 1:00 PM

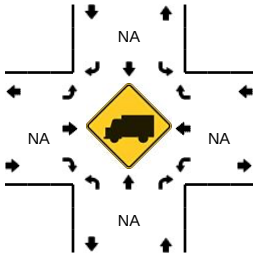


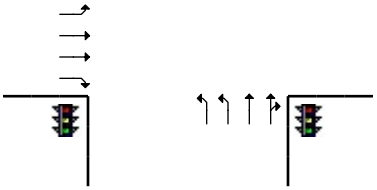


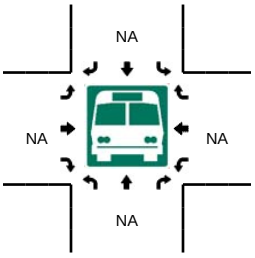












5-Min Count Period Beginning At	A5 -Sierra†College†Blvd (Northbound)				A5 -Sierra†College†Blvd (Southbound)				Rocklin†Rd (Eastbound)				Rocklin†Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	12	48	4	0	5	28	6	0	13	12	23	4	3	14	7	0	179	
11:05 AM	10	32	2	0	7	28	12	0	9	13	14	1	2	13	10	0	153	
11:10 AM	6	36	3	1	3	36	4	0	11	11	19	5	1	6	5	0	147	
11:15 AM	6	42	7	0	7	26	8	0	15	17	20	1	1	12	9	0	171	
11:20 AM	21	50	4	0	7	41	8	0	10	16	15	2	1	10	5	0	190	
11:25 AM	8	23	2	0	10	41	10	1	10	10	16	1	4	12	8	0	156	
11:30 AM	11	47	4	0	6	34	5	0	8	11	11	1	6	12	10	0	166	
11:35 AM	16	47	2	0	6	32	5	0	7	15	15	4	3	8	7	0	167	
11:40 AM	21	45	1	0	4	38	7	0	13	15	20	1	2	11	7	0	185	
11:45 AM	12	43	4	0	6	32	8	0	12	10	14	2	2	10	7	0	162	
11:50 AM	13	58	2	0	14	32	7	0	10	19	25	0	8	31	10	0	229	
11:55 AM	9	41	0	0	6	45	8	0	9	8	13	0	1	13	5	0	158	2063
12:00 PM	11	37	4	0	6	39	9	0	7	12	11	1	3	13	8	0	161	2045
12:05 PM	14	54	3	0	6	31	6	0	9	17	15	3	5	15	9	0	187	2079
12:10 PM	13	37	5	0	5	39	6	0	11	10	21	2	2	7	11	0	169	2101
12:15 PM	18	32	2	0	9	40	9	0	9	17	16	2	7	19	9	0	189	2119
12:20 PM	13	50	0	0	5	45	9	0	3	19	17	4	2	15	4	0	186	2115
12:25 PM	14	56	1	0	8	46	2	0	3	12	14	4	6	12	9	0	187	2146
12:30 PM	9	42	2	1	12	35	6	0	8	16	12	1	1	23	9	0	177	2157
12:35 PM	14	54	3	0	14	31	5	0	9	17	12	0	3	9	9	0	180	2170
12:40 PM	18	40	1	0	5	33	9	0	14	18	19	3	2	11	11	0	184	2169
12:45 PM	15	37	6	0	7	33	8	0	13	14	15	2	1	11	15	0	177	2184
12:50 PM	18	60	1	2	11	37	11	0	7	10	10	1	2	11	9	0	190	2145
12:55 PM	5	45	1	0	15	43	10	0	9	22	23	0	6	12	9	0	200	2187

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	152	568	32	8	132	452	116	0	116	184	192	12	36	136	132	0	2268
Heavy Trucks	8	16	0		4	12	8		4	0	0		4	12	4		72
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Pacific St -- Dominguez Rd/Delmar Ave

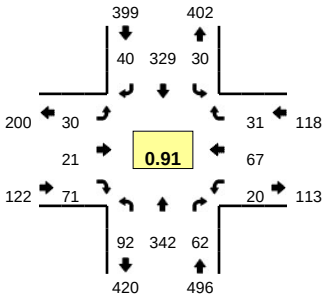
QC JOB #: 13963331

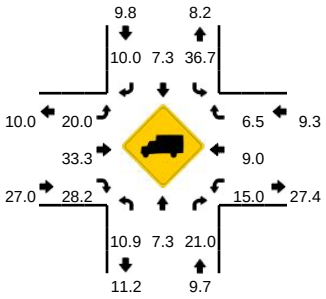
CITY/STATE: Placer, CA

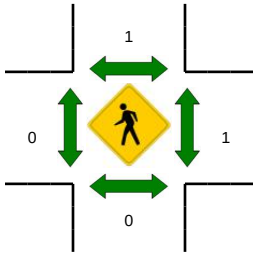
DATE: Thu, Nov 17 2016

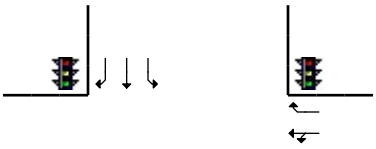
Peak-Hour: 7:40 AM -- 8:40 AM

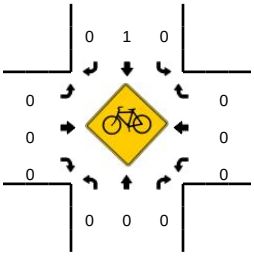
Peak 15-Min: 7:40 AM -- 7:55 AM

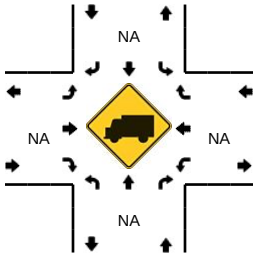


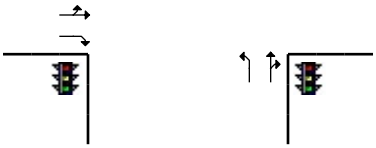


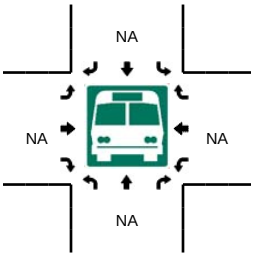












5-Min Count Period Beginning At	Pacific St (Northbound)				Pacific St (Southbound)				Dominguez Rd/Delmar Ave (Eastbound)				Dominguez Rd/Delmar Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	7	15	3	0	3	18	2	0	1	5	2	0	3	9	1	0	69	
7:05 AM	6	19	3	0	0	15	1	0	1	2	3	0	1	2	2	0	55	
7:10 AM	1	26	2	0	2	15	4	0	2	4	6	0	2	3	0	0	67	
7:15 AM	6	26	3	0	3	25	1	0	2	1	3	0	1	9	2	0	82	
7:20 AM	10	15	4	0	4	18	2	0	0	2	3	0	3	6	1	0	68	
7:25 AM	2	33	0	0	1	12	2	0	0	1	9	0	6	1	4	0	71	
7:30 AM	5	34	5	0	3	21	2	0	1	3	4	0	0	3	2	0	83	
7:35 AM	5	34	2	0	0	21	3	0	2	1	3	0	4	4	1	0	80	
7:40 AM	6	20	7	0	3	31	3	0	6	1	12	0	6	4	4	0	103	
7:45 AM	11	39	7	0	1	41	5	0	2	3	8	0	0	6	1	0	124	
7:50 AM	11	33	4	0	3	19	3	0	1	0	5	0	1	6	0	0	86	
7:55 AM	8	32	5	0	2	23	2	0	1	1	2	0	2	10	4	0	92	980
8:00 AM	7	31	2	0	2	38	4	0	1	1	5	0	1	6	2	0	100	1011
8:05 AM	9	27	7	0	3	19	6	0	3	1	6	0	0	6	3	0	90	1046
8:10 AM	7	23	2	0	4	17	3	0	2	0	7	1	2	4	0	0	72	1051
8:15 AM	5	32	5	0	3	34	5	0	3	4	6	0	2	7	3	0	109	1078
8:20 AM	10	27	8	0	5	27	1	0	5	3	3	0	0	1	3	0	93	1103
8:25 AM	5	26	6	0	1	33	1	0	1	3	5	0	1	9	6	0	97	1129
8:30 AM	6	31	4	0	2	20	2	0	3	0	8	0	1	5	3	0	85	1131
8:35 AM	7	21	5	0	1	27	5	0	1	4	4	0	4	3	2	0	84	1135
8:40 AM	8	36	3	0	2	9	1	0	2	2	7	0	3	2	6	0	81	1113
8:45 AM	3	18	4	0	1	33	0	0	2	4	7	0	3	2	0	0	77	1066
8:50 AM	0	24	4	0	0	39	2	0	3	1	3	0	1	3	4	0	84	1064
8:55 AM	9	22	2	0	0	15	1	0	1	2	4	0	1	4	2	0	63	1035

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	112	368	72	0	28	364	44	0	36	16	100	0	28	64	20	0	1252
Heavy Trucks	8	16	12		8	24	4		8	12	36		4	4	4		140
Pedestrians		0				4				0				4			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Pacific St -- Dominguez Rd/Delmar Ave

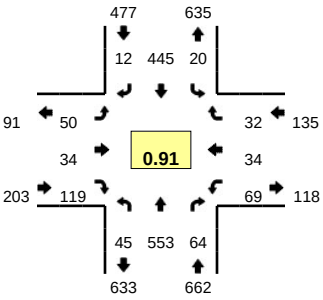
CITY/STATE: Placer, CA

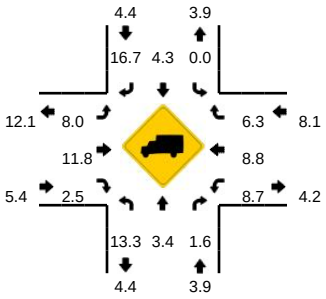
QC JOB #: 13963332

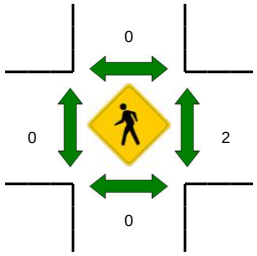
DATE: Thu, Nov 17 2016

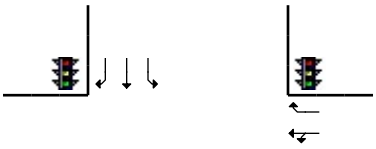
Peak-Hour: 4:00 PM -- 5:00 PM

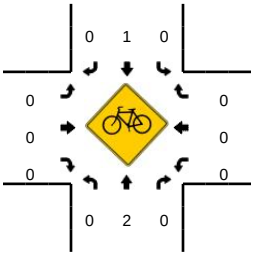
Peak 15-Min: 4:00 PM -- 4:15 PM

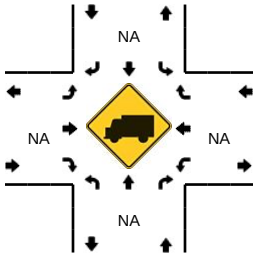


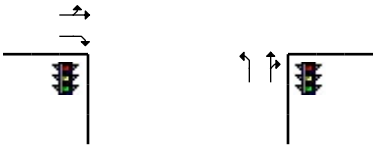


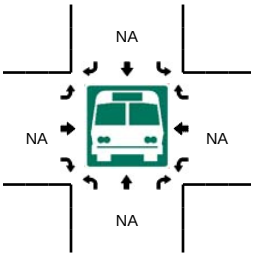












5-Min Count Period Beginning At	Pacific St (Northbound)				Pacific St (Southbound)				Dominguez Rd/Delmar Ave (Eastbound)				Dominguez Rd/Delmar Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	9	50	5	0	0	36	1	0	8	2	10	0	9	5	1	0	136	
4:05 PM	4	47	8	0	2	35	1	0	6	5	20	0	4	3	2	0	137	
4:10 PM	6	52	5	0	2	39	0	0	7	3	13	0	2	5	1	0	135	
4:15 PM	4	59	6	0	3	26	2	0	5	3	8	0	5	1	4	0	126	
4:20 PM	0	31	1	0	2	36	0	0	1	3	12	0	9	2	10	0	107	
4:25 PM	2	53	7	0	1	49	1	0	4	1	3	0	5	2	4	0	132	
4:30 PM	5	48	4	0	2	38	0	0	3	3	14	0	5	1	3	0	126	
4:35 PM	4	46	6	0	4	28	1	0	2	4	10	0	9	3	3	0	120	
4:40 PM	4	52	4	0	0	39	3	0	7	2	5	0	6	5	2	0	129	
4:45 PM	5	29	4	0	2	52	1	0	1	1	11	0	7	2	0	0	115	
4:50 PM	2	42	9	0	2	28	0	0	3	2	8	0	3	2	1	0	102	
4:55 PM	0	44	5	0	0	39	2	0	3	5	5	0	5	3	1	0	112	1477
5:00 PM	4	46	0	0	2	42	1	0	0	6	8	0	12	2	1	0	124	1465
5:05 PM	1	67	2	0	3	32	0	0	3	2	16	0	4	0	3	0	133	1461
5:10 PM	1	53	2	0	1	43	2	0	3	4	11	0	11	3	0	0	134	1460
5:15 PM	1	41	0	0	0	52	0	0	5	4	4	0	11	1	5	0	124	1458
5:20 PM	0	48	4	0	0	46	0	0	4	1	7	0	3	1	1	0	115	1466
5:25 PM	1	35	3	0	1	36	2	0	2	0	4	0	11	3	0	0	98	1432
5:30 PM	2	56	4	0	1	34	1	0	0	5	6	0	3	3	1	0	116	1422
5:35 PM	2	57	6	0	1	31	0	0	2	3	9	0	3	1	1	0	116	1418
5:40 PM	1	35	2	0	0	36	0	0	0	1	5	0	9	2	0	0	91	1380
5:45 PM	2	35	7	0	0	33	2	0	0	2	4	0	1	1	0	0	87	1352
5:50 PM	2	38	2	0	2	21	0	0	1	2	3	0	0	3	1	0	75	1325
5:55 PM	1	35	7	0	1	35	1	0	3	2	3	0	3	2	1	0	94	1307

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	76	596	72	0	16	440	8	0	84	40	172	0	60	52	16	0	1632
Heavy Trucks	4	24	4		0	16	0		4	12	0		4	8	0		76
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

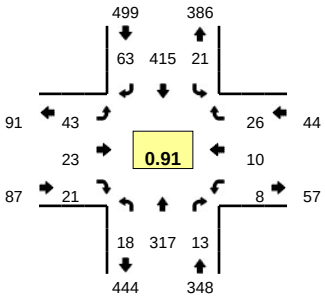
Method for determining peak hour: Total Entering Volume

LOCATION: B11 - Pacific†St -- Dominguez†Rd/Delmar Ave

QC JOB #: 14088516

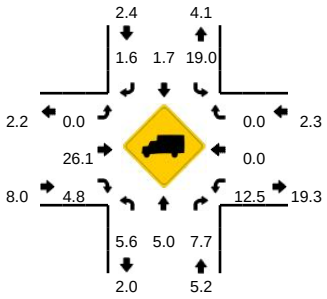
CITY/STATE: Rocklin, CA

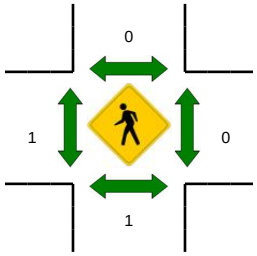
DATE: Sat, Jan 28 2017

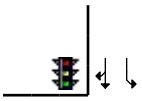


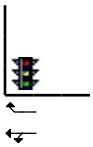
Peak-Hour: 11:55 AM -- 12:55 PM

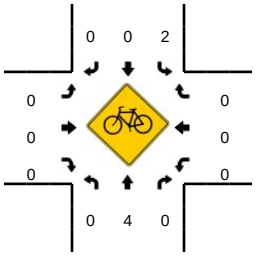
Peak 15-Min: 12:10 PM -- 12:25 PM

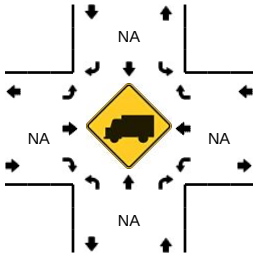


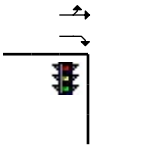


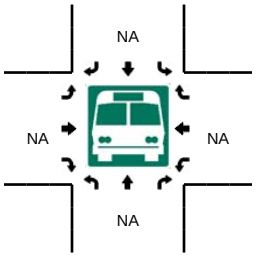












5-Min Count Period Beginning At	B11 - Pacific†St (Northbound)				B11 - Pacific†St (Southbound)				Dominguez†Rd/Delmar Ave (Eastbound)				Dominguez†Rd/Delmar Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	2	20	4	0	0	25	4	0	2	2	1	0	1	2	3	0	66	
11:05 AM	0	29	1	0	3	21	4	0	1	0	4	0	0	2	2	0	67	
11:10 AM	3	27	1	0	2	24	3	0	4	0	0	0	1	3	1	0	69	
11:15 AM	3	23	0	0	1	36	9	0	0	2	2	0	2	1	4	0	83	
11:20 AM	2	28	2	0	1	19	2	0	3	1	1	0	1	2	3	0	65	
11:25 AM	1	18	1	0	2	33	4	0	4	2	0	0	0	0	5	0	70	
11:30 AM	2	22	1	0	0	31	1	0	2	2	2	0	1	1	0	0	65	
11:35 AM	0	17	0	0	3	32	2	0	4	1	4	0	1	2	1	0	67	
11:40 AM	1	29	2	0	5	22	3	0	3	1	1	0	4	0	2	0	73	
11:45 AM	3	19	1	0	3	21	5	0	1	1	2	0	2	2	2	0	62	
11:50 AM	1	18	0	0	0	29	1	0	2	4	0	0	2	0	3	0	60	
11:55 AM	3	32	2	0	2	33	6	0	1	1	2	0	0	2	0	0	84	831
12:00 PM	0	27	0	0	3	27	5	0	1	4	2	0	0	2	1	0	72	837
12:05 PM	2	19	1	0	4	36	9	0	6	5	2	0	0	1	4	0	89	859
12:10 PM	0	31	1	0	2	36	4	0	4	1	2	0	1	2	3	0	87	877
12:15 PM	1	26	1	0	1	27	8	0	3	4	2	0	0	1	2	0	76	870
12:20 PM	3	30	0	0	3	49	8	0	4	1	2	0	2	0	3	0	105	910
12:25 PM	2	33	2	0	0	29	0	0	2	0	1	0	1	1	3	0	74	914
12:30 PM	2	24	0	0	1	40	5	0	2	0	1	0	1	0	2	0	78	927
12:35 PM	3	22	2	0	3	31	7	0	6	1	2	0	0	0	0	0	77	937
12:40 PM	1	26	2	0	1	44	2	0	5	3	2	0	2	0	1	0	89	953
12:45 PM	0	24	1	0	0	35	2	0	3	2	3	0	1	1	3	0	75	966
12:50 PM	1	23	1	0	1	28	7	0	6	1	0	0	0	0	4	0	72	978
12:55 PM	1	20	1	0	2	30	6	0	6	0	0	0	0	1	2	0	69	963

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	348	8	0	24	448	80	0	44	24	24	0	12	12	32	0	1072
Heavy Trucks	0	12	0		4	4	0		0	16	4		0	0	0		40
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

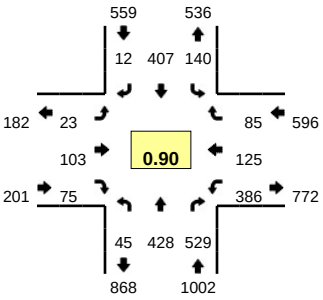
Method for determining peak hour: Total Entering Volume

LOCATION: Pacific St -- Rocklin Rd

CITY/STATE: Placer, CA

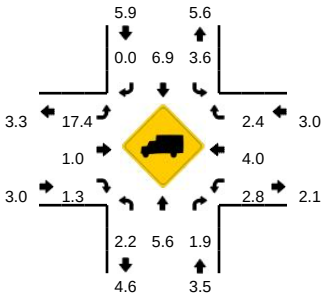
QC JOB #: 13963329

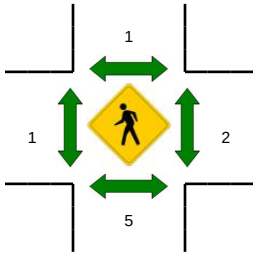
DATE: Thu, Nov 17 2016

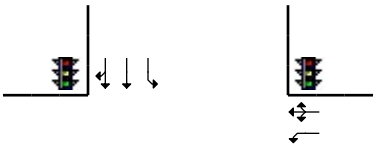


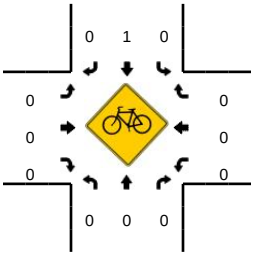
Peak-Hour: 7:35 AM -- 8:35 AM

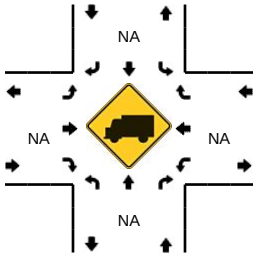
Peak 15-Min: 7:55 AM -- 8:10 AM

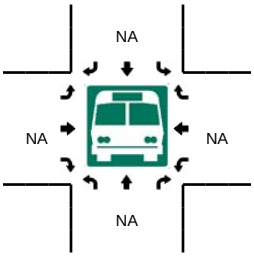












5-Min Count Period Beginning At	Pacific St (Northbound)				Pacific St (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	16	18	1	11	20	0	0	1	2	3	0	12	2	4	0	90	
7:05 AM	1	18	20	0	7	27	0	0	2	3	3	0	10	4	4	0	99	
7:10 AM	6	21	21	0	6	16	2	0	0	3	1	0	11	4	5	0	96	
7:15 AM	3	26	17	0	11	18	2	0	0	8	3	0	14	3	4	0	109	
7:20 AM	3	25	25	0	9	26	0	0	1	5	4	0	11	10	9	0	128	
7:25 AM	0	25	34	0	16	27	3	0	0	14	3	0	28	5	3	0	158	
7:30 AM	2	28	36	0	18	26	1	0	1	7	2	0	18	0	7	0	146	
7:35 AM	1	32	45	0	13	37	0	0	2	3	3	0	20	3	8	0	167	
7:40 AM	2	30	41	0	13	32	0	0	2	4	6	0	14	9	2	0	155	
7:45 AM	0	40	50	0	15	38	0	0	0	10	2	0	28	9	8	0	200	
7:50 AM	1	41	47	0	14	36	2	0	7	9	1	0	36	0	7	0	201	
7:55 AM	3	37	58	0	15	42	3	0	4	4	4	0	25	5	11	0	211	1760
8:00 AM	4	41	66	0	11	28	3	0	0	8	6	0	36	18	11	0	232	1902
8:05 AM	5	41	50	0	11	29	0	0	1	13	7	0	35	12	8	0	212	2015
8:10 AM	8	31	46	0	5	33	1	0	2	11	6	0	34	13	5	0	195	2114
8:15 AM	10	33	45	0	17	27	0	0	2	9	16	0	48	26	7	0	240	2245
8:20 AM	6	44	24	0	10	36	2	0	1	12	12	0	38	18	5	0	208	2325
8:25 AM	2	28	26	0	11	36	0	0	1	15	8	0	49	7	7	0	190	2357
8:30 AM	3	30	31	0	5	33	1	0	1	5	4	0	23	5	6	0	147	2358
8:35 AM	1	25	13	0	9	37	1	0	1	5	0	0	28	3	9	0	132	2323
8:40 AM	0	36	37	0	12	37	0	0	2	1	0	0	25	2	9	0	161	2329
8:45 AM	0	28	27	1	9	31	0	0	1	3	6	0	16	6	11	0	139	2268
8:50 AM	2	17	25	0	15	47	2	0	0	11	0	0	11	3	5	0	138	2205
8:55 AM	3	33	34	0	4	34	1	0	3	5	4	0	17	2	9	0	149	2143

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	476	696	0	148	396	24	0	20	100	68	0	384	140	120	0	2620
Heavy Trucks	0	28	20		4	24	0		4	0	0		4	0	0		84
Pedestrians		16				0				0				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

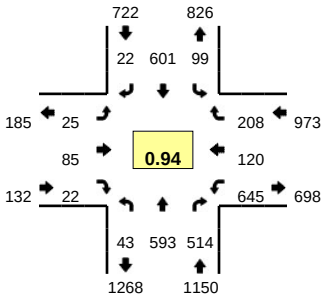
Method for determining peak hour: Total Entering Volume

LOCATION: Pacific St -- Rocklin Rd

CITY/STATE: Placer, CA

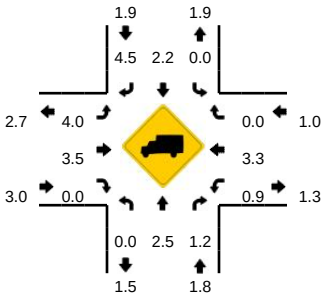
QC JOB #: 13963330

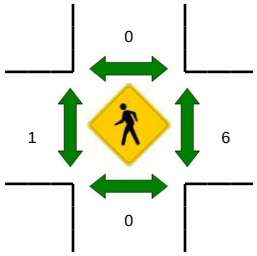
DATE: Thu, Nov 17 2016

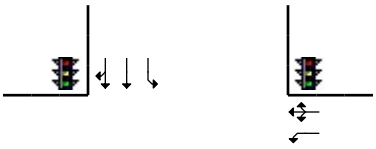


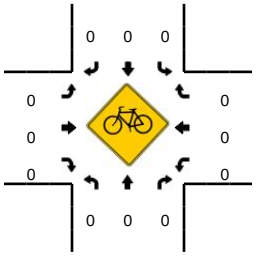
Peak-Hour: 4:35 PM -- 5:35 PM

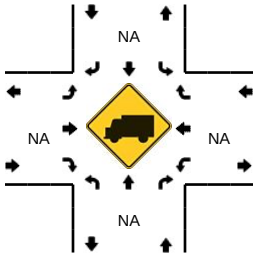
Peak 15-Min: 5:15 PM -- 5:30 PM

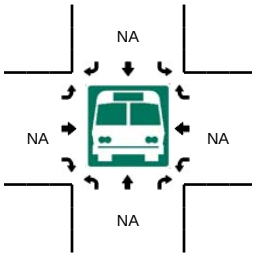












5-Min Count Period Beginning At	Pacific St (Northbound)				Pacific St (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	53	41	0	6	48	7	0	1	7	1	0	57	8	26	0	259	
4:05 PM	4	45	48	0	7	57	2	0	0	4	3	0	61	9	10	0	250	
4:10 PM	2	58	39	0	9	40	0	0	1	2	3	0	48	11	12	0	225	
4:15 PM	2	50	46	0	10	34	1	0	1	4	1	0	43	5	11	0	208	
4:20 PM	2	52	45	0	8	47	5	0	1	7	5	0	54	10	12	0	248	
4:25 PM	8	51	42	0	13	44	1	0	4	7	7	0	38	3	6	0	224	
4:30 PM	1	56	40	0	9	46	0	0	2	4	2	0	34	6	7	0	207	
4:35 PM	2	46	51	0	12	55	2	0	2	5	3	0	54	9	13	0	254	
4:40 PM	3	43	33	0	6	32	1	0	1	3	4	0	48	11	17	0	202	
4:45 PM	3	32	37	0	14	35	1	0	2	5	1	0	53	10	22	0	215	
4:50 PM	1	55	42	0	4	55	3	0	2	14	1	0	49	8	15	0	249	
4:55 PM	8	50	49	0	9	48	0	0	3	5	3	0	52	7	17	0	251	2792
5:00 PM	5	57	38	0	5	52	2	0	1	5	2	0	55	6	23	0	251	2784
5:05 PM	5	51	55	0	10	63	3	0	1	4	0	0	59	12	20	0	283	2817
5:10 PM	3	50	47	0	7	58	3	0	4	7	2	0	44	10	12	0	247	2839
5:15 PM	2	51	44	0	6	64	3	0	0	7	0	0	57	9	17	0	260	2891
5:20 PM	6	37	40	0	11	51	2	0	4	8	2	0	65	10	19	0	255	2898
5:25 PM	2	65	39	0	10	52	0	0	4	9	3	0	60	16	17	0	277	2951
5:30 PM	3	56	39	0	5	36	2	0	1	13	1	0	49	12	16	0	233	2977
5:35 PM	3	45	29	0	4	32	2	0	5	3	0	0	68	15	17	0	223	2946
5:40 PM	3	42	25	0	10	34	3	0	2	5	1	0	53	18	13	0	209	2953
5:45 PM	3	51	36	0	9	27	2	0	4	9	3	0	39	12	21	0	216	2954
5:50 PM	6	47	42	0	7	27	3	0	4	7	1	0	36	13	12	0	205	2910
5:55 PM	4	36	29	0	10	27	3	0	1	7	3	0	42	9	9	0	180	2839

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	612	492	0	108	668	20	0	32	96	20	0	728	140	212	0	3168
Heavy Trucks	0	8	4		0	20	0		4	4	0		12	8	0		60
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

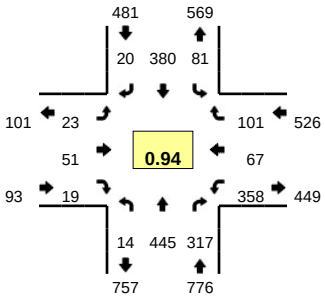
Method for determining peak hour: Total Entering Volume

LOCATION: A10 - Pacific†St -- Rocklin†Rd

CITY/STATE: Placer, CA

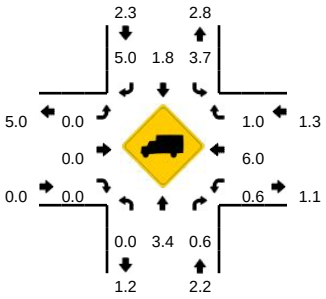
QC JOB #: 14088515

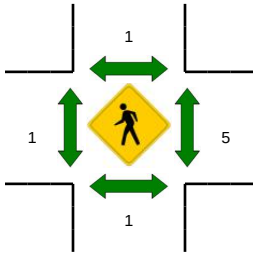
DATE: Sat, Jan 28 2017

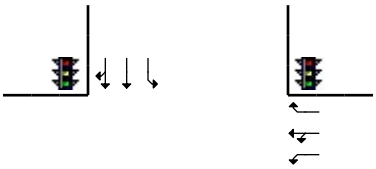


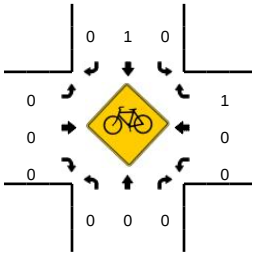
Peak-Hour: 12:00 PM -- 1:00 PM

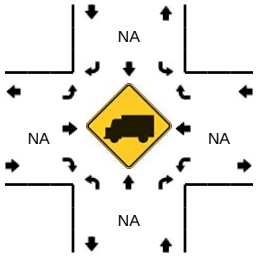
Peak 15-Min: 12:45 PM -- 1:00 PM

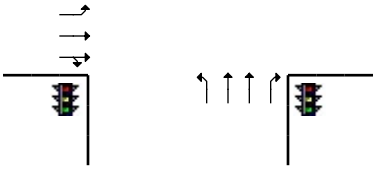


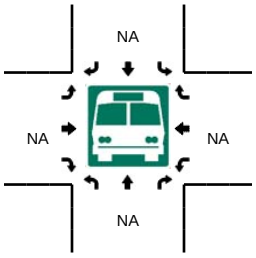












5-Min Count Period Beginning At	A10 - Pacific†St (Northbound)				A10 - Pacific†St (Southbound)				Rocklin†Rd (Eastbound)				Rocklin†Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	1	21	18	0	5	21	1	0	2	1	2	0	24	9	14	0	119	
11:05 AM	0	39	21	0	8	39	0	0	1	2	1	0	31	14	8	0	164	
11:10 AM	0	38	26	0	12	40	2	0	0	8	3	0	26	9	7	0	171	
11:15 AM	4	40	27	0	9	21	0	0	0	1	1	0	27	5	4	0	139	
11:20 AM	1	35	22	0	9	35	1	0	3	2	1	0	22	3	10	0	144	
11:25 AM	2	23	20	0	12	31	2	0	2	5	0	0	29	5	7	0	138	
11:30 AM	1	30	33	0	6	33	1	0	1	4	6	0	24	2	9	0	150	
11:35 AM	1	32	35	0	8	35	1	0	2	3	1	0	31	4	9	0	162	
11:40 AM	2	20	22	0	7	27	0	0	1	5	2	0	23	4	12	0	125	
11:45 AM	1	29	30	0	6	23	3	0	1	4	3	0	43	2	5	0	150	
11:50 AM	0	26	31	0	5	32	1	0	3	2	4	0	13	6	11	0	134	
11:55 AM	4	34	18	0	10	25	0	0	5	10	2	0	28	6	8	0	150	1746
12:00 PM	0	42	28	0	10	27	1	0	5	9	3	0	37	5	7	0	174	1801
12:05 PM	2	40	28	0	6	28	0	0	2	5	0	0	40	3	13	0	167	1804
12:10 PM	0	35	24	0	10	31	0	0	2	2	0	0	21	7	6	0	138	1771
12:15 PM	0	50	33	0	2	35	1	0	0	7	2	0	26	6	10	0	172	1804
12:20 PM	0	39	28	0	9	29	5	0	0	0	0	0	26	5	9	0	150	1810
12:25 PM	5	30	17	0	5	39	1	0	1	4	3	0	27	5	6	0	143	1815
12:30 PM	0	31	22	0	6	24	1	0	3	4	2	0	26	8	9	0	136	1801
12:35 PM	0	40	25	0	7	33	1	0	2	7	3	0	22	2	8	0	150	1789
12:40 PM	2	31	22	0	4	33	2	0	1	6	1	0	27	9	11	0	149	1813
12:45 PM	0	43	30	0	4	37	4	0	1	2	2	0	38	5	9	0	175	1838
12:50 PM	4	27	29	0	8	35	3	0	2	2	1	0	30	3	8	0	152	1856
12:55 PM	1	37	31	0	10	29	1	0	4	3	2	0	38	9	5	0	170	1876

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	428	360	0	88	404	32	0	28	28	20	0	424	68	88	0	1988
Heavy Trucks	0	8	0		4	4	4		0	0	0		0	0	4		24
Pedestrians		0				0				0				16			16
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Granite Dr -- Rocklin Rd

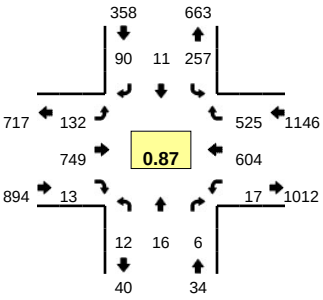
CITY/STATE: Placer, CA

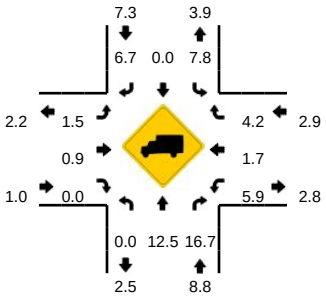
QC JOB #: 13963327

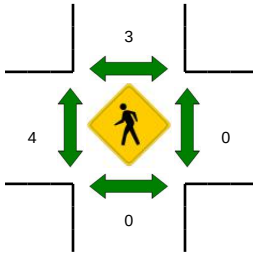
DATE: Thu, Nov 17 2016

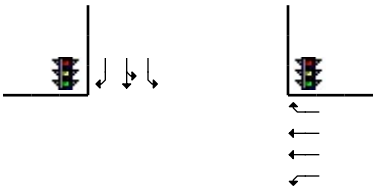
Peak-Hour: 7:30 AM -- 8:30 AM

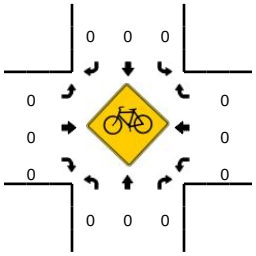
Peak 15-Min: 8:00 AM -- 8:15 AM

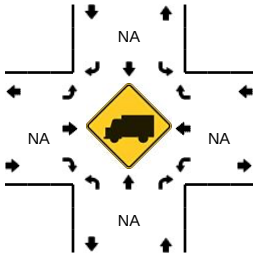


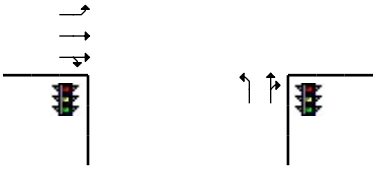


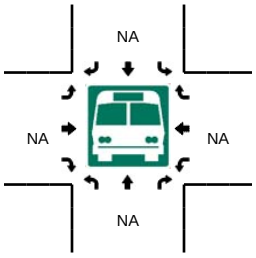












5-Min Count Period Beginning At	Granite Dr (Northbound)				Granite Dr (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	1	1	0	13	0	2	0	3	36	0	0	1	23	37	0	117	
7:05 AM	1	3	0	0	16	1	5	0	5	39	1	0	2	20	24	0	117	
7:10 AM	0	0	0	0	13	0	2	0	4	37	0	1	3	27	27	0	114	
7:15 AM	1	1	1	0	15	1	2	0	8	51	0	0	0	29	24	0	133	
7:20 AM	0	0	1	0	10	0	4	0	5	44	1	1	0	37	40	0	143	
7:25 AM	0	2	0	0	22	0	3	0	6	61	0	0	2	37	36	0	169	
7:30 AM	0	2	0	0	10	0	8	0	7	82	0	0	0	30	33	0	172	
7:35 AM	0	0	0	0	16	0	5	0	2	69	1	1	0	39	44	0	177	
7:40 AM	0	1	1	0	15	0	6	0	4	54	0	0	0	28	42	0	151	
7:45 AM	0	2	0	0	3	1	8	0	15	74	1	0	0	50	43	0	197	
7:50 AM	2	1	0	0	27	1	3	0	8	62	0	0	1	46	49	0	200	
7:55 AM	2	0	0	0	20	1	8	0	13	44	2	1	3	70	56	0	220	1910
8:00 AM	0	0	0	0	23	0	8	0	9	73	0	1	3	77	53	0	247	2040
8:05 AM	3	4	2	0	21	3	2	1	12	66	3	0	3	52	42	0	214	2137
8:10 AM	1	1	1	0	21	0	12	0	19	61	3	2	2	74	44	0	241	2264
8:15 AM	1	3	2	0	39	1	11	0	8	57	0	1	2	37	42	0	204	2335
8:20 AM	1	1	0	0	32	2	12	0	7	55	1	3	1	53	36	1	205	2397
8:25 AM	2	1	0	0	29	2	7	0	17	52	2	2	1	48	41	0	204	2432
8:30 AM	2	2	1	0	20	2	3	0	12	57	0	0	1	31	27	0	158	2418
8:35 AM	0	1	2	0	29	3	11	0	5	30	0	0	2	44	34	0	161	2402
8:40 AM	0	1	0	0	44	3	8	0	8	42	0	0	0	35	28	0	169	2420
8:45 AM	1	4	0	0	42	0	6	0	5	50	1	0	1	20	28	0	158	2381
8:50 AM	0	3	1	0	21	0	3	0	14	42	0	0	1	26	53	1	165	2346
8:55 AM	0	0	0	0	12	0	3	0	1	22	0	0	1	35	44	0	118	2244

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	20	12	0	260	12	88	4	160	800	24	12	32	812	556	0	2808
Heavy Trucks	0	8	0		20	0	16		0	4	0		0	12	36		96
Pedestrians		0				8				12				0			20
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Granite Dr -- Rocklin Rd

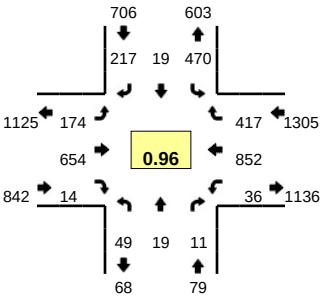
CITY/STATE: Placer, CA

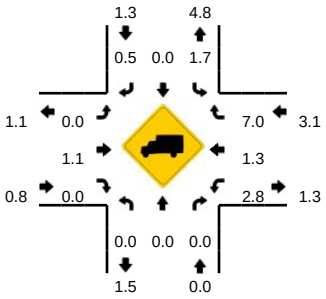
QC JOB #: 13963328

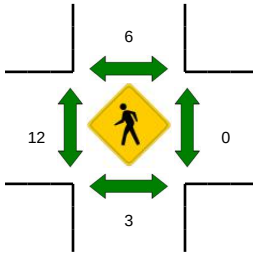
DATE: Thu, Nov 17 2016

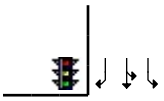
Peak-Hour: 4:40 PM -- 5:40 PM

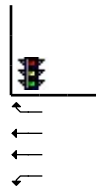
Peak 15-Min: 5:00 PM -- 5:15 PM

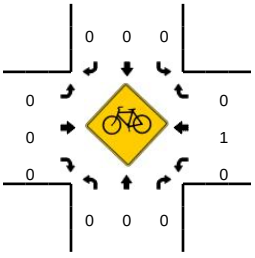


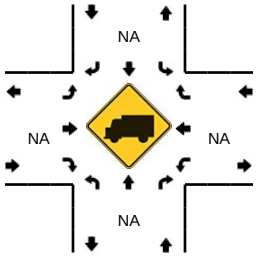


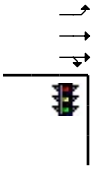


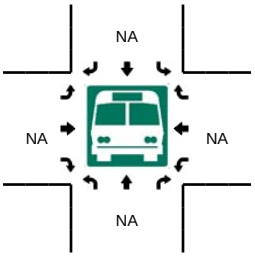












5-Min Count Period Beginning At	Granite Dr (Northbound)				Granite Dr (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	1	1	0	24	1	18	0	8	45	0	0	1	57	40	0	199	
4:05 PM	3	2	3	0	39	1	17	0	14	62	0	0	3	52	28	2	226	
4:10 PM	3	1	1	0	31	1	14	0	9	62	0	0	0	56	41	0	219	
4:15 PM	1	1	0	0	39	1	19	0	15	52	1	0	4	63	48	0	244	
4:20 PM	3	1	1	0	40	0	13	0	9	40	1	2	4	47	35	1	197	
4:25 PM	2	0	4	0	30	0	11	0	7	58	4	1	0	56	40	0	213	
4:30 PM	3	3	1	0	34	5	21	0	12	42	1	0	3	45	38	0	208	
4:35 PM	6	4	0	0	55	2	13	0	16	56	2	0	3	46	34	0	237	
4:40 PM	6	2	2	0	41	1	21	0	18	48	0	0	2	67	27	0	235	
4:45 PM	5	0	1	0	21	1	13	0	3	66	3	0	1	100	36	0	250	
4:50 PM	7	4	0	0	53	0	24	0	12	42	0	0	4	56	34	0	236	
4:55 PM	4	0	2	0	30	2	19	0	15	57	2	1	7	65	27	0	231	2695
5:00 PM	3	2	2	0	47	1	23	0	18	55	0	0	4	82	36	0	273	2769
5:05 PM	3	1	1	0	57	1	19	0	13	42	0	0	3	48	46	1	235	2778
5:10 PM	6	1	0	0	51	3	16	0	19	68	0	0	6	49	37	0	256	2815
5:15 PM	2	2	0	0	20	3	19	0	11	66	1	0	1	105	27	0	257	2828
5:20 PM	3	1	0	0	36	2	13	0	16	62	3	2	4	52	46	0	240	2871
5:25 PM	2	3	1	0	29	1	12	0	8	52	4	1	1	90	28	0	232	2890
5:30 PM	4	2	0	0	43	3	22	0	21	41	1	1	1	63	40	0	242	2924
5:35 PM	4	1	2	0	42	1	16	0	13	55	0	2	1	75	33	0	245	2932
5:40 PM	8	0	0	0	30	1	17	0	6	36	0	0	1	86	36	0	221	2918
5:45 PM	3	1	0	0	29	1	10	0	18	47	2	0	1	73	28	0	213	2881
5:50 PM	6	2	2	0	46	1	16	0	14	43	0	0	6	53	38	1	228	2873
5:55 PM	5	2	1	0	35	5	17	0	19	53	0	0	2	59	34	0	232	2874

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	16	12	0	620	20	232	0	200	660	0	0	52	716	476	4	3056
Heavy Trucks	0	0	0		24	0	0		0	4	0		0	8	44		80
Pedestrians		0				8				20				0			28
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

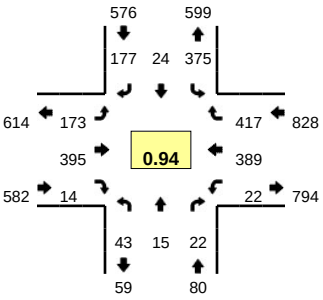
LOCATION: A9 - Granite†Dr -- Rocklin†Rd

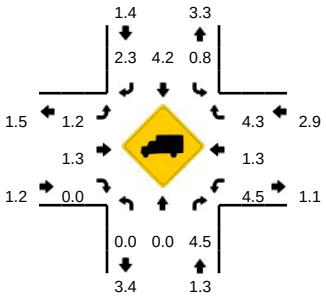
QC JOB #: 14088514

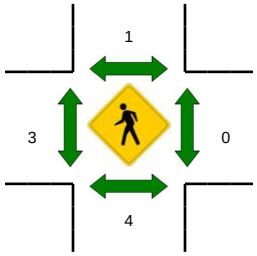
CITY/STATE: Placer, CA

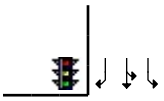
DATE: Sat, Jan 28 2017

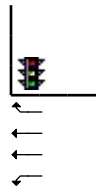
Peak-Hour: 11:50 AM -- 12:50 PM
Peak 15-Min: 12:35 PM -- 12:50 PM

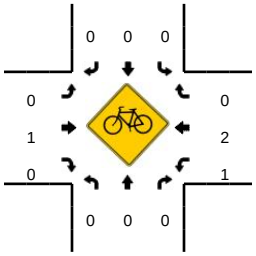


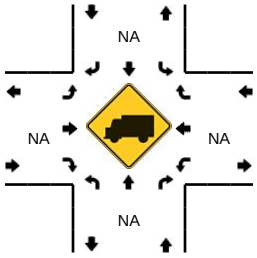


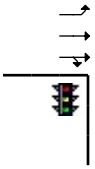


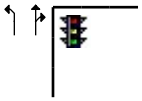


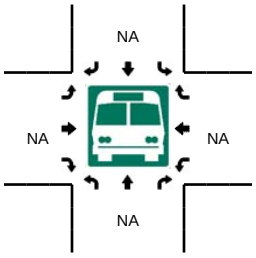












5-Min Count Period Beginning At	A9 - Granite†Dr (Northbound)				A9 - Granite†Dr (Southbound)				Rocklin†Rd (Eastbound)				Rocklin†Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	2	2	4	0	24	1	10	0	15	28	1	2	3	48	26	0	166	
11:05 AM	2	1	2	0	26	2	15	0	7	38	1	1	3	43	34	0	175	
11:10 AM	2	1	1	0	39	1	12	0	21	28	1	0	2	28	37	1	174	
11:15 AM	1	0	1	0	24	1	6	0	11	38	3	0	3	33	30	0	151	
11:20 AM	2	1	0	0	25	1	13	0	3	40	0	0	3	24	37	0	149	
11:25 AM	3	1	2	0	15	1	15	0	14	32	1	1	2	30	36	1	154	
11:30 AM	3	2	1	0	24	3	14	0	18	32	1	0	4	30	42	0	174	
11:35 AM	3	2	2	0	42	0	19	0	13	37	4	1	2	33	33	0	191	
11:40 AM	3	1	1	0	45	3	16	0	14	31	0	0	3	24	25	0	166	
11:45 AM	3	3	0	0	28	2	16	0	0	48	2	2	2	23	45	0	174	
11:50 AM	3	0	2	0	18	1	12	0	18	25	2	2	0	37	40	0	160	
11:55 AM	4	2	2	0	29	1	18	0	17	33	3	0	1	35	45	0	190	2024
12:00 PM	3	0	4	0	33	2	21	0	11	36	0	0	2	36	39	1	188	2046
12:05 PM	4	2	2	0	33	3	14	0	15	38	2	0	0	27	25	1	166	2037
12:10 PM	2	2	0	0	21	1	15	0	14	36	1	1	1	33	31	0	158	2021
12:15 PM	5	1	4	1	40	1	17	0	8	35	1	1	1	30	23	0	168	2038
12:20 PM	4	1	1	0	21	2	13	0	16	38	2	1	0	26	35	0	160	2049
12:25 PM	1	2	1	0	33	3	16	0	9	23	1	0	3	33	31	0	156	2051
12:30 PM	5	1	2	0	46	4	13	0	8	27	1	0	4	18	41	0	170	2047
12:35 PM	3	0	3	0	34	3	12	0	17	38	0	0	3	41	33	0	187	2043
12:40 PM	5	2	0	0	36	1	13	0	16	37	1	0	1	43	30	0	185	2062
12:45 PM	3	2	1	0	31	2	13	0	18	29	0	1	4	30	44	0	178	2066
12:50 PM	3	1	2	0	37	2	15	0	8	25	2	1	2	29	30	0	157	2063
12:55 PM	3	1	2	0	27	3	18	0	18	41	2	1	2	33	39	0	190	2063

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	44	16	16	0	404	24	152	0	204	416	4	4	32	456	428	0	2200
Heavy Trucks	0	0	0		0	4	0		0	8	0		4	0	16		32
Pedestrians		12				0				4				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	1	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: I-80 WB Ramps -- Rocklin Rd

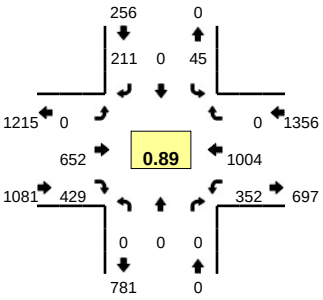
CITY/STATE: Placer, CA

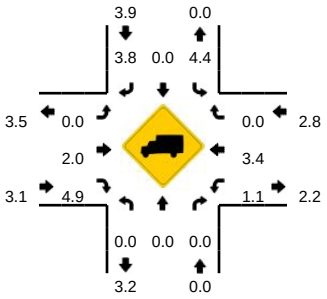
QC JOB #: 13963337

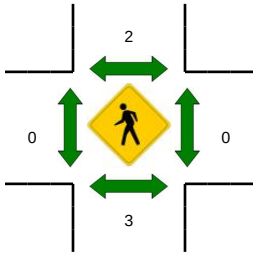
DATE: Thu, Nov 17 2016

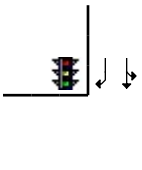
Peak-Hour: 7:30 AM -- 8:30 AM

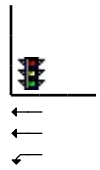
Peak 15-Min: 7:50 AM -- 8:05 AM

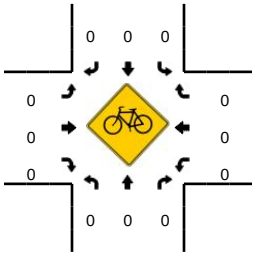


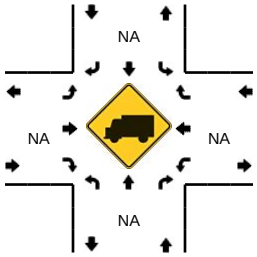


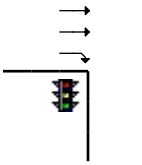


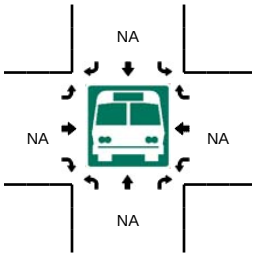












5-Min Count Period Beginning At	I-80 WB Ramps (Northbound)				I-80 WB Ramps (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	12	0	0	35	25	0	33	49	0	0	155	
7:05 AM	0	0	0	0	2	0	7	0	0	33	21	0	30	42	0	0	135	
7:10 AM	0	0	0	0	4	0	7	0	0	29	25	0	35	52	0	0	152	
7:15 AM	0	0	0	0	7	0	4	0	0	46	25	0	45	56	0	0	183	
7:20 AM	0	0	0	0	2	1	12	0	0	35	20	0	38	71	0	0	179	
7:25 AM	0	0	0	0	2	0	14	0	0	45	18	0	35	61	0	0	175	
7:30 AM	0	0	0	0	4	0	10	0	0	81	29	0	33	62	0	0	219	
7:35 AM	0	0	0	0	2	0	20	0	0	65	25	0	25	56	0	0	193	
7:40 AM	0	0	0	0	2	0	13	0	0	52	20	0	43	66	0	0	196	
7:45 AM	0	0	0	0	3	0	24	0	0	62	19	0	28	78	0	0	214	
7:50 AM	0	0	0	0	5	0	26	0	0	62	29	0	31	96	0	0	249	
7:55 AM	0	0	0	0	9	0	19	0	0	39	34	0	24	113	0	0	238	2288
8:00 AM	0	0	0	0	2	0	19	0	0	46	42	0	43	121	0	0	273	2406
8:05 AM	0	0	0	0	5	0	14	0	0	58	56	0	16	88	0	0	237	2508
8:10 AM	0	0	0	0	5	0	15	0	0	47	40	0	35	94	0	0	236	2592
8:15 AM	0	0	0	0	2	0	16	0	0	51	47	0	30	84	0	0	230	2639
8:20 AM	0	0	0	0	5	0	15	0	0	47	41	0	25	80	0	0	213	2673
8:25 AM	0	0	0	0	1	0	20	0	0	42	47	0	19	66	0	0	195	2693
8:30 AM	0	0	0	0	4	0	16	0	0	56	31	0	28	54	0	0	189	2663
8:35 AM	0	0	0	0	1	0	15	0	0	31	28	0	35	59	0	0	169	2639
8:40 AM	0	0	0	0	2	0	13	0	0	55	38	0	26	51	0	0	185	2628
8:45 AM	0	0	0	0	8	0	14	0	0	48	48	0	32	46	0	0	196	2610
8:50 AM	0	0	0	0	5	0	16	0	0	35	41	0	39	73	0	0	209	2570
8:55 AM	0	0	0	0	2	0	8	0	0	45	33	0	28	80	0	0	196	2528

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	64	0	256	0	0	588	420	0	392	1320	0	0	3040
Heavy Trucks	0	0	0		4	0	8		0	16	16		4	40	0		88
Pedestrians		0				8				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: I-80 WB Ramps -- Rocklin Rd

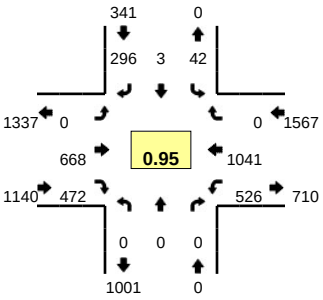
CITY/STATE: Placer, CA

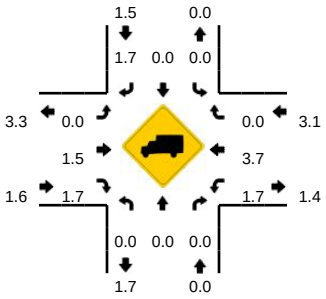
QC JOB #: 13963338

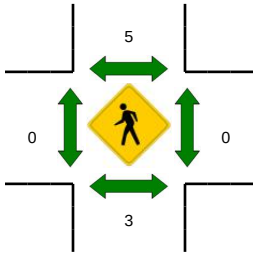
DATE: Thu, Nov 17 2016

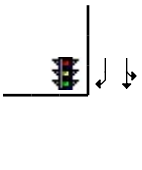
Peak-Hour: 4:40 PM -- 5:40 PM

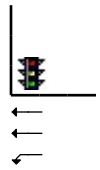
Peak 15-Min: 4:50 PM -- 5:05 PM

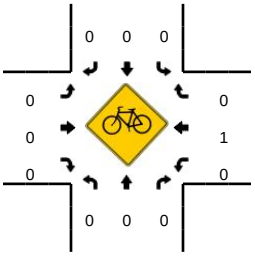


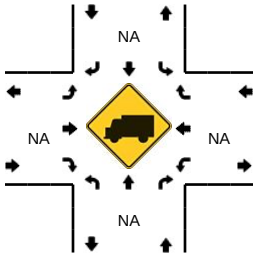


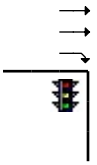


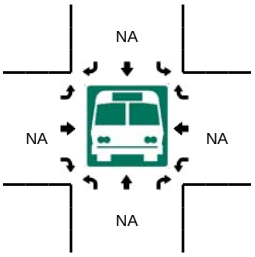












5-Min Count Period Beginning At	I-80 WB Ramps (Northbound)				I-80 WB Ramps (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	3	0	20	0	0	37	30	0	56	89	0	0	235	
4:05 PM	0	0	0	0	2	0	15	0	0	54	48	0	42	87	0	0	248	
4:10 PM	0	0	0	0	0	0	22	0	0	60	29	0	58	63	0	0	232	
4:15 PM	0	0	0	0	4	0	14	0	0	69	50	0	45	104	0	0	286	
4:20 PM	0	0	0	0	7	0	17	0	0	55	32	0	37	84	0	0	232	
4:25 PM	0	0	0	0	3	1	20	0	0	56	28	0	40	68	0	0	216	
4:30 PM	0	0	0	0	3	0	14	0	0	49	29	0	34	81	0	0	210	
4:35 PM	0	0	0	0	2	0	19	0	0	57	39	0	40	72	0	0	229	
4:40 PM	0	0	0	0	7	0	36	0	0	45	44	0	48	82	0	0	262	
4:45 PM	0	0	0	0	4	2	24	0	0	52	28	0	53	92	0	0	255	
4:50 PM	0	0	0	0	5	0	20	0	0	74	41	0	29	98	0	0	267	
4:55 PM	0	0	0	0	0	0	21	0	0	62	30	0	64	83	0	0	260	2932
5:00 PM	0	0	0	0	2	0	22	0	0	47	48	0	52	107	0	0	278	2975
5:05 PM	0	0	0	0	1	1	19	0	0	53	47	0	47	77	0	0	245	2972
5:10 PM	0	0	0	0	3	0	16	0	0	59	46	0	54	101	0	0	279	3019
5:15 PM	0	0	0	0	0	0	26	0	0	61	42	0	51	83	0	0	263	2996
5:20 PM	0	0	0	0	9	0	35	0	0	72	27	0	32	86	0	0	261	3025
5:25 PM	0	0	0	0	5	0	25	0	0	51	40	0	30	76	0	0	227	3036
5:30 PM	0	0	0	0	4	0	25	0	0	38	35	0	31	69	0	0	202	3028
5:35 PM	0	0	0	0	2	0	27	0	0	54	44	0	35	87	0	0	249	3048
5:40 PM	0	0	0	0	3	0	22	0	0	43	25	0	37	97	0	0	227	3013
5:45 PM	0	0	0	0	4	0	27	0	0	49	34	0	27	78	0	0	219	2977
5:50 PM	0	0	0	0	5	0	17	0	0	55	37	0	25	94	0	0	233	2943
5:55 PM	0	0	0	0	5	1	19	0	0	65	31	0	24	86	0	0	231	2914

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	28	0	252	0	0	732	476	0	580	1152	0	0	3220
Heavy Trucks	0	0	0		0	0	0		0	12	12		8	52	0		84
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

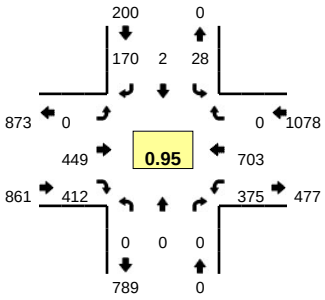
LOCATION: A8 - I-80†WB†Ramps -- Rocklin Rd

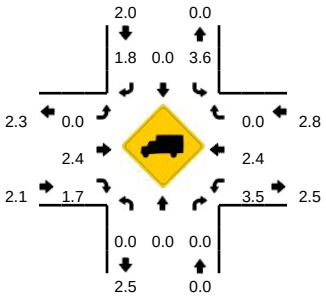
QC JOB #: 14088519

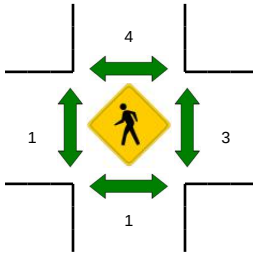
CITY/STATE: Placer, CA

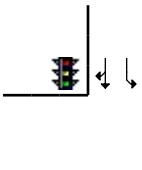
DATE: Sat, Jan 28 2017

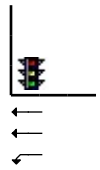
Peak-Hour: 11:40 AM -- 12:40 PM
Peak 15-Min: 11:55 AM -- 12:10 PM

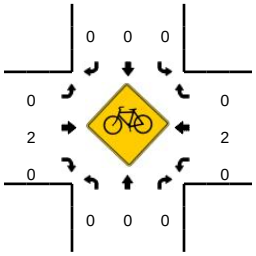


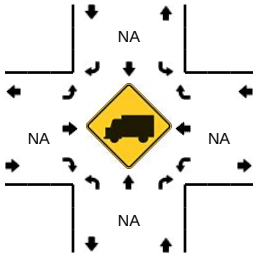


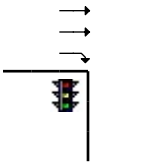


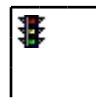


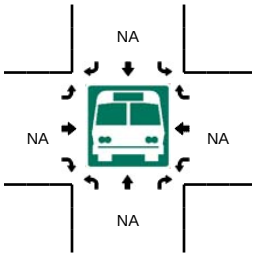












5-Min Count Period Beginning At	A8 - I-80†WB†Ramps (Northbound)				A8 - I-80†WB†Ramps (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	0	0	0	1	0	16	0	0	34	31	0	24	64	0	0	170	
11:05 AM	0	0	0	0	5	0	17	0	0	26	40	0	29	66	0	0	183	
11:10 AM	0	0	0	0	0	0	21	0	1	39	33	0	28	63	0	0	185	
11:15 AM	0	0	0	0	0	0	15	0	0	42	31	0	23	46	0	0	157	
11:20 AM	0	0	0	0	1	0	9	0	0	43	29	0	28	58	0	0	168	
11:25 AM	0	0	0	0	1	0	8	0	0	24	26	0	27	61	0	0	147	
11:30 AM	0	0	0	0	1	0	9	0	0	37	29	0	20	71	0	0	167	
11:35 AM	0	0	0	0	2	0	15	0	0	44	34	0	26	61	0	0	182	
11:40 AM	0	0	0	0	3	0	18	0	0	40	44	0	24	50	0	0	179	
11:45 AM	0	0	0	0	0	0	8	0	0	43	36	0	49	67	0	0	203	
11:50 AM	0	0	0	0	2	1	17	0	0	31	23	0	31	62	0	0	167	
11:55 AM	0	0	0	0	1	0	29	0	0	32	26	0	39	57	0	0	184	2092
12:00 PM	0	0	0	0	2	0	16	0	0	44	34	0	23	65	0	0	184	2106
12:05 PM	0	0	0	0	3	0	14	0	0	44	43	0	38	50	0	0	192	2115
12:10 PM	0	0	0	0	6	1	13	0	0	36	29	0	24	49	0	0	158	2088
12:15 PM	0	0	0	0	0	0	12	0	0	45	37	0	20	50	0	0	164	2095
12:20 PM	0	0	0	0	2	0	6	0	0	28	29	0	38	64	0	0	167	2094
12:25 PM	0	0	0	0	5	0	11	0	0	27	25	0	26	61	0	0	155	2102
12:30 PM	0	0	0	0	2	0	11	0	0	33	45	0	37	59	0	0	187	2122
12:35 PM	0	0	0	0	2	0	15	0	0	46	41	0	26	69	0	0	199	2139
12:40 PM	0	0	0	0	2	0	19	0	0	44	35	0	18	57	0	0	175	2135
12:45 PM	0	0	0	0	6	0	15	0	0	40	29	0	35	82	0	0	207	2139
12:50 PM	0	0	0	0	4	1	13	0	0	40	30	0	14	63	0	0	165	2137
12:55 PM	0	0	0	0	1	0	15	0	0	39	30	0	24	64	0	0	173	2126

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	24	0	236	0	0	480	412	0	400	688	0	0	2240
Heavy Trucks	0	0	0		0	0	0		0	4	16		16	32	0		68
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: I-80 EB Ramps -- Rocklin Rd

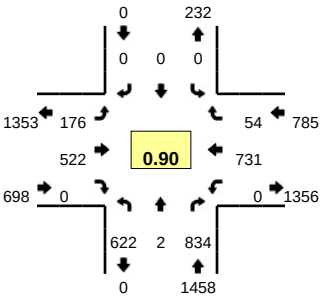
CITY/STATE: Placer, CA

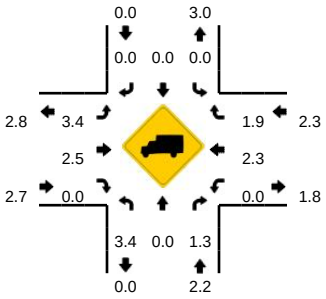
QC JOB #: 13963339

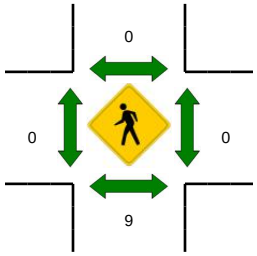
DATE: Thu, Nov 17 2016

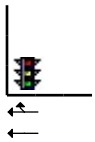
Peak-Hour: 7:20 AM -- 8:20 AM

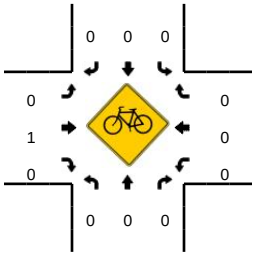
Peak 15-Min: 7:40 AM -- 7:55 AM

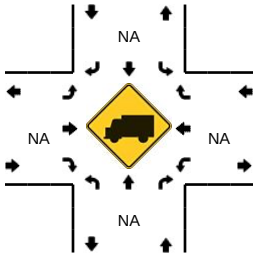


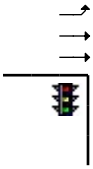


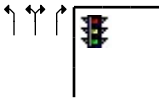


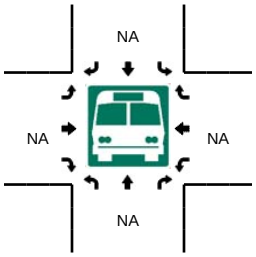












5-Min Count Period Beginning At	I-80 EB Ramps (Northbound)				I-80 EB Ramps (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	32	0	31	0	0	0	0	0	12	23	0	0	0	48	1	0	147	
7:05 AM	34	0	37	0	0	0	0	0	9	21	0	0	0	39	2	0	142	
7:10 AM	35	0	41	0	0	0	0	0	14	26	0	0	0	55	4	0	175	
7:15 AM	41	0	45	0	0	0	0	0	17	31	0	0	0	64	2	0	200	
7:20 AM	44	0	61	0	0	0	0	0	11	33	0	0	0	58	6	0	213	
7:25 AM	36	0	71	0	0	0	0	0	16	34	0	0	0	61	6	0	224	
7:30 AM	47	0	74	0	0	0	0	0	22	51	0	0	0	51	10	0	255	
7:35 AM	37	0	76	0	0	0	0	0	16	60	0	0	0	50	3	0	242	
7:40 AM	54	0	108	0	0	0	0	0	19	33	0	0	0	51	3	0	268	
7:45 AM	49	0	89	0	0	0	0	0	13	61	0	0	0	57	3	0	272	
7:50 AM	60	0	87	0	0	0	0	0	13	53	0	0	0	63	4	0	280	
7:55 AM	83	0	73	0	0	0	0	0	10	34	0	0	0	52	2	0	254	2672
8:00 AM	51	0	53	0	0	0	0	0	8	45	0	0	0	108	3	0	268	2793
8:05 AM	57	1	54	0	0	0	0	0	21	34	0	0	0	48	3	0	218	2869
8:10 AM	56	0	40	0	0	0	0	0	14	49	0	0	0	65	7	0	231	2925
8:15 AM	48	1	48	0	0	0	0	0	13	35	0	0	0	67	4	0	216	2941
8:20 AM	51	0	42	0	0	0	0	0	12	40	0	0	0	50	6	0	201	2929
8:25 AM	42	0	40	0	0	0	0	0	18	24	0	0	0	43	3	0	170	2875
8:30 AM	35	0	41	0	0	0	0	0	14	43	0	0	0	45	4	0	182	2802
8:35 AM	33	0	42	0	0	0	0	0	10	28	0	0	0	61	4	0	178	2738
8:40 AM	31	1	50	0	0	0	0	0	11	31	0	0	0	49	4	0	177	2647
8:45 AM	29	1	53	0	0	0	0	0	16	56	0	0	0	46	2	0	203	2578
8:50 AM	50	0	52	0	0	0	0	0	4	34	0	0	0	63	8	0	211	2509
8:55 AM	65	0	57	0	0	0	0	0	7	31	0	0	0	48	5	0	213	2468

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	652	0	1136	0	0	0	0	0	180	588	0	0	0	684	40	0	3280
Heavy Trucks	20	0	8		0	0	0		12	4	0		0	8	0		52
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	1	0		0	0	0		1
Railroad Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: I-80 EB Ramps -- Rocklin Rd

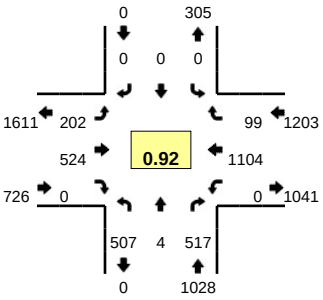
CITY/STATE: Placer, CA

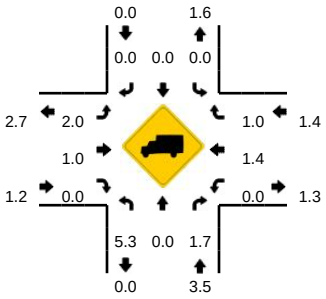
QC JOB #: 13963340

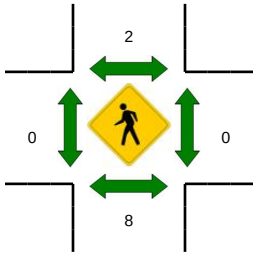
DATE: Thu, Nov 17 2016

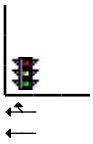
Peak-Hour: 4:15 PM -- 5:15 PM

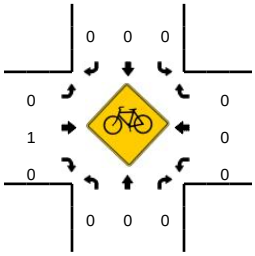
Peak 15-Min: 5:00 PM -- 5:15 PM

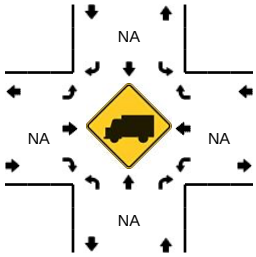


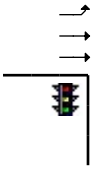


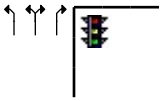


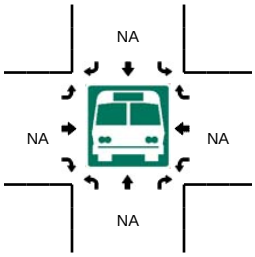












5-Min Count Period Beginning At	I-80 EB Ramps (Northbound)				I-80 EB Ramps (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	40	0	43	0	0	0	0	0	13	43	0	0	0	101	7	0	247	
4:05 PM	46	0	40	0	0	0	0	0	19	39	0	0	0	79	5	0	228	
4:10 PM	31	0	40	0	0	0	0	0	13	42	0	0	0	81	9	0	216	
4:15 PM	56	0	55	0	0	0	0	0	17	42	0	0	0	107	8	0	285	
4:20 PM	44	1	44	0	0	0	0	0	20	44	0	0	0	67	8	0	228	
4:25 PM	36	0	43	0	0	0	0	0	31	40	0	0	0	66	6	0	222	
4:30 PM	36	0	37	0	0	0	0	0	17	43	0	0	0	81	6	0	220	
4:35 PM	32	2	40	0	0	0	0	0	11	45	0	0	0	81	4	0	215	
4:40 PM	44	0	43	0	0	0	0	0	14	41	0	0	0	86	6	0	234	
4:45 PM	44	0	42	0	0	0	0	0	7	44	0	0	0	99	9	0	245	
4:50 PM	56	0	42	0	0	0	0	0	22	48	0	0	0	88	15	0	271	
4:55 PM	36	0	41	0	0	0	0	0	17	37	0	0	0	93	8	0	232	2843
5:00 PM	40	0	50	0	0	0	0	0	20	53	0	0	0	116	8	0	287	2883
5:05 PM	40	1	40	0	0	0	0	0	16	40	0	0	0	104	10	0	251	2906
5:10 PM	43	0	40	0	0	0	0	0	10	47	0	0	0	116	11	0	267	2957
5:15 PM	34	0	48	0	0	0	0	0	21	43	0	0	0	86	7	0	239	2911
5:20 PM	52	1	50	0	0	0	0	0	18	54	0	0	0	68	6	0	249	2932
5:25 PM	31	0	35	0	0	0	0	0	23	39	0	0	0	82	6	0	216	2926
5:30 PM	43	0	41	0	0	0	0	0	16	34	0	0	0	83	8	0	225	2931
5:35 PM	51	0	49	0	0	0	0	0	25	44	0	0	0	65	6	0	240	2956
5:40 PM	51	0	48	0	0	0	0	0	7	40	0	0	0	75	5	0	226	2948
5:45 PM	41	0	50	0	0	0	0	0	10	31	0	0	0	70	6	0	208	2911
5:50 PM	54	0	65	0	0	0	0	0	12	45	0	0	0	69	4	0	249	2889
5:55 PM	48	0	49	0	0	0	0	0	18	55	0	0	0	56	5	0	231	2888

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	492	4	520	0	0	0	0	0	184	560	0	0	0	1344	116	0	3220
Heavy Trucks	48	0	12		0	0	0		0	8	0		0	16	0		84
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	1	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: A7 - I-80†EB†Ramps -- Rocklin Rd

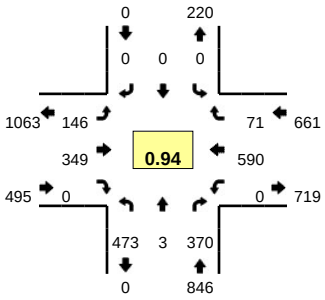
CITY/STATE: Placer, CA

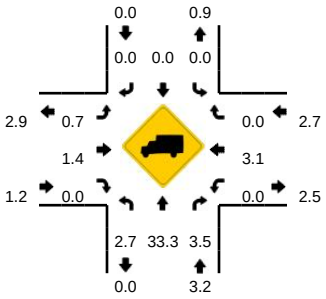
QC JOB #: 14088520

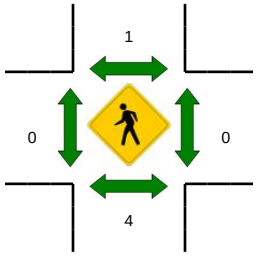
DATE: Sat, Jan 28 2017

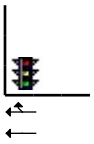
Peak-Hour: 12:00 PM -- 1:00 PM

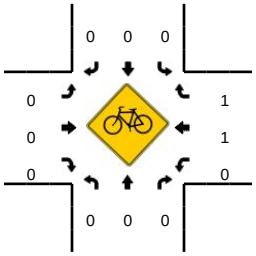
Peak 15-Min: 12:35 PM -- 12:50 PM

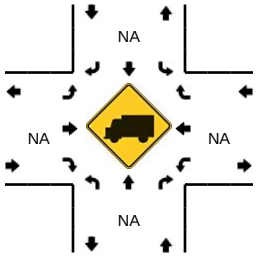


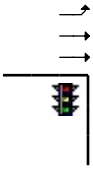


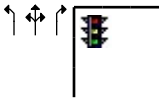


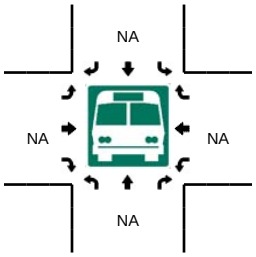












5-Min Count Period Beginning At	A7 - I-80†EB†Ramps (Northbound)				A7 - I-80†EB†Ramps (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	31	0	28	0	0	0	0	0	12	20	0	0	0	56	6	0	153	
11:05 AM	43	0	24	0	0	0	0	0	12	20	0	0	0	59	4	0	162	
11:10 AM	36	0	12	0	0	0	0	0	8	31	0	0	0	53	7	0	147	
11:15 AM	32	0	23	0	0	0	0	0	7	29	0	0	0	45	6	0	142	
11:20 AM	39	1	34	0	0	0	0	0	17	32	0	0	0	38	6	0	167	
11:25 AM	42	0	26	0	0	0	0	0	10	15	0	0	0	54	5	0	152	
11:30 AM	40	0	28	0	0	0	0	0	14	27	0	0	0	44	5	0	158	
11:35 AM	42	0	28	0	0	0	0	0	17	30	0	0	0	44	7	0	168	
11:40 AM	31	0	36	0	0	0	0	0	14	30	0	0	0	50	11	0	172	
11:45 AM	38	1	24	0	0	0	0	0	18	25	0	0	0	65	5	0	176	
11:50 AM	40	0	37	0	0	0	0	0	10	21	0	0	0	58	6	0	172	
11:55 AM	31	1	23	0	0	0	0	0	7	28	0	0	0	62	7	0	159	1928
12:00 PM	38	1	32	0	0	0	0	0	16	31	0	0	0	47	8	0	173	1948
12:05 PM	28	0	26	0	0	0	0	0	9	38	0	0	0	57	7	0	165	1951
12:10 PM	30	0	30	0	0	0	0	0	12	30	0	0	0	46	6	0	154	1958
12:15 PM	38	1	22	0	0	0	0	0	9	27	0	0	0	43	5	0	145	1961
12:20 PM	33	0	28	0	0	0	0	0	16	22	0	0	0	62	4	0	165	1959
12:25 PM	42	0	34	0	0	0	0	0	13	20	0	0	0	42	4	0	155	1962
12:30 PM	40	0	29	0	0	0	0	0	12	24	0	0	0	52	6	0	163	1967
12:35 PM	42	0	35	0	0	0	0	0	15	33	0	0	0	54	3	0	182	1981
12:40 PM	42	0	31	0	0	0	0	0	16	30	0	0	0	57	5	0	181	1990
12:45 PM	42	1	28	0	0	0	0	0	7	33	0	0	0	48	10	0	169	1983
12:50 PM	46	0	37	0	0	0	0	0	11	31	0	0	0	44	6	0	175	1986
12:55 PM	52	0	38	0	0	0	0	0	10	30	0	0	0	38	7	0	175	2002

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	504	4	376	0	0	0	0	0	152	384	0	0	0	636	72	0	2128
Heavy Trucks	8	4	8		0	0	0		0	8	0		0	12	0		40
Pedestrians		4				4				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

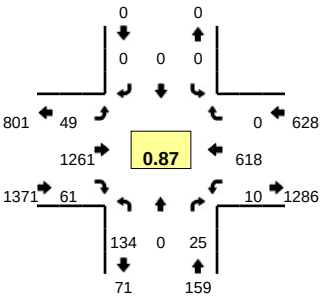
LOCATION: Aguilar Rd -- Rocklin Rd

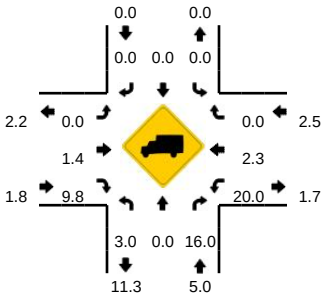
QC JOB #: 13963325

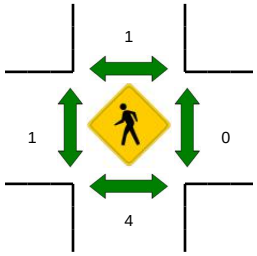
CITY/STATE: Placer, CA

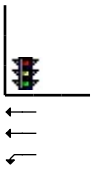
DATE: Thu, Nov 17 2016

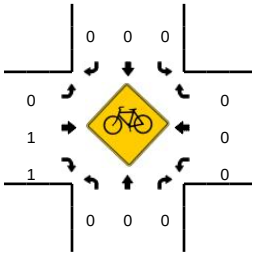
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

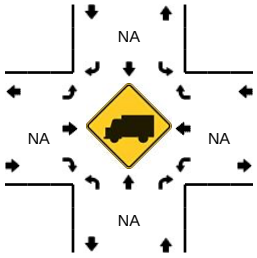


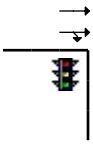


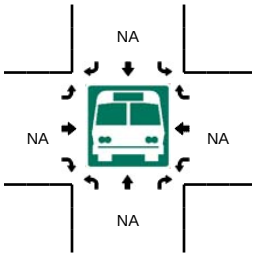












5-Min Count Period Beginning At	Aguilar Rd (Northbound)				Aguilar Rd (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	0	1	0	0	0	0	0	0	54	1	4	1	34	0	0	101	
7:05 AM	6	0	1	0	0	0	0	0	0	56	0	3	0	37	0	0	103	
7:10 AM	14	0	2	0	0	0	0	0	0	63	3	2	0	47	0	0	131	
7:15 AM	14	0	1	0	0	0	0	0	0	65	4	2	1	50	0	0	137	
7:20 AM	23	0	1	0	0	0	0	0	0	80	4	4	0	42	0	0	154	
7:25 AM	12	0	2	0	0	0	0	0	0	103	3	4	0	39	0	0	163	
7:30 AM	12	0	0	0	0	0	0	0	0	112	4	2	0	52	0	0	182	
7:35 AM	10	0	9	0	0	0	0	0	0	132	2	2	3	38	0	0	196	
7:40 AM	13	0	2	0	0	0	0	0	0	136	6	7	0	34	0	0	198	
7:45 AM	4	0	0	0	0	0	0	0	0	144	3	5	0	56	0	0	212	
7:50 AM	9	0	2	0	0	0	0	0	0	146	3	3	1	46	0	0	210	
7:55 AM	6	0	3	0	0	0	0	0	0	87	8	2	0	57	0	0	163	1950
8:00 AM	10	0	1	0	0	0	0	0	0	93	10	3	3	95	0	0	215	2064
8:05 AM	10	0	1	0	0	0	0	0	0	71	9	4	1	46	0	0	142	2103
8:10 AM	11	0	4	0	0	0	0	0	0	85	7	3	1	61	0	0	172	2144
8:15 AM	14	0	0	0	0	0	0	0	0	72	2	10	1	52	0	0	151	2158
8:20 AM	7	0	2	0	0	0	0	0	0	75	6	7	1	51	0	0	149	2153
8:25 AM	8	0	4	0	0	0	0	0	0	59	7	3	1	30	0	0	112	2102
8:30 AM	7	0	1	0	0	0	0	0	0	70	8	2	2	43	0	0	133	2053
8:35 AM	8	0	4	0	0	0	0	0	0	61	7	5	1	52	0	0	138	1995
8:40 AM	6	0	1	0	0	0	0	0	0	70	5	4	1	46	0	0	133	1930
8:45 AM	6	0	2	0	0	0	0	0	0	94	6	5	1	36	0	0	150	1868
8:50 AM	8	0	2	0	0	0	0	0	0	94	2	2	0	59	0	0	167	1825
8:55 AM	9	0	2	0	0	0	0	0	0	87	2	5	0	48	0	0	153	1815

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	104	0	16	0	0	0	0	0	0	1704	48	60	4	544	0	0	2480
Heavy Trucks	0	0	0		0	0	0		0	8	8		0	12	0		28
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	1	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Aguilar Rd -- Rocklin Rd

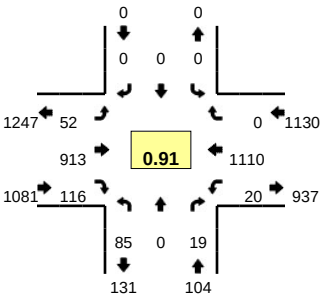
CITY/STATE: Placer, CA

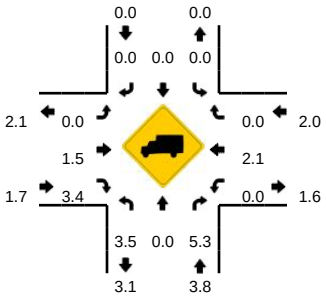
QC JOB #: 13963326

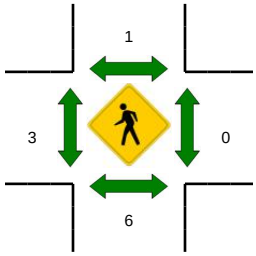
DATE: Thu, Nov 17 2016

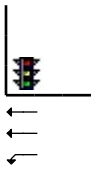
Peak-Hour: 4:30 PM -- 5:30 PM

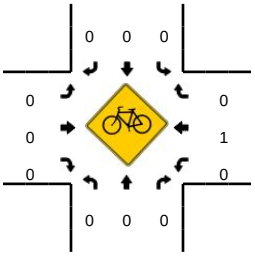
Peak 15-Min: 4:50 PM -- 5:05 PM

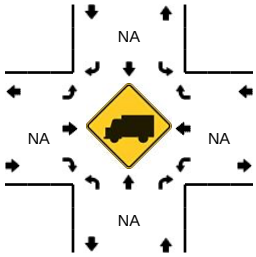


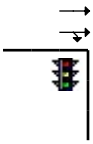


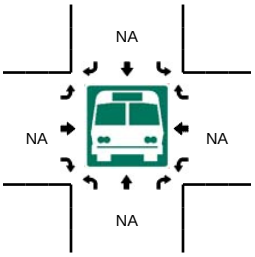












5-Min Count Period Beginning At	Aguilar Rd (Northbound)				Aguilar Rd (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	11	0	2	0	0	0	0	0	0	79	10	2	1	87	0	1	193	
4:05 PM	10	0	3	0	0	0	0	0	0	71	7	3	1	84	0	1	180	
4:10 PM	5	0	2	0	0	0	0	0	0	64	11	6	0	77	0	0	165	
4:15 PM	7	0	1	0	0	0	0	0	0	90	10	8	1	99	0	1	217	
4:20 PM	6	0	0	0	0	0	0	0	0	70	9	7	0	76	0	1	169	
4:25 PM	6	0	1	0	0	0	0	0	0	75	10	5	0	56	0	0	153	
4:30 PM	3	0	0	0	0	0	0	0	0	69	12	5	0	92	0	0	181	
4:35 PM	8	0	1	0	0	0	0	0	0	81	6	5	1	66	0	0	168	
4:40 PM	4	0	1	0	0	0	0	0	0	79	10	3	0	93	0	0	190	
4:45 PM	11	0	3	0	0	0	0	0	0	79	7	1	1	88	0	0	190	
4:50 PM	3	0	0	0	0	0	0	0	0	81	7	7	2	102	0	0	202	
4:55 PM	9	0	0	0	0	0	0	0	0	79	8	6	0	100	0	0	202	2210
5:00 PM	5	0	3	0	0	0	0	0	0	83	17	2	1	123	0	1	235	2252
5:05 PM	7	0	1	0	0	0	0	0	0	66	7	4	1	84	0	1	171	2243
5:10 PM	11	0	3	0	0	0	0	0	0	80	8	4	0	123	0	0	229	2307
5:15 PM	9	0	2	0	0	0	0	0	0	71	9	1	6	85	0	1	184	2274
5:20 PM	7	0	4	0	0	0	0	0	0	82	15	5	1	65	0	2	181	2286
5:25 PM	8	0	1	0	0	0	0	0	0	63	10	9	2	89	0	0	182	2315
5:30 PM	7	0	0	0	0	0	0	0	0	58	11	5	3	61	0	0	145	2279
5:35 PM	5	0	1	0	0	0	0	0	0	87	10	5	2	81	0	0	191	2302
5:40 PM	12	0	2	0	0	0	0	0	0	80	12	5	3	51	0	0	165	2277
5:45 PM	7	0	1	0	0	0	0	0	0	68	6	4	1	77	0	0	164	2251
5:50 PM	8	0	1	0	0	0	0	0	0	96	7	3	1	63	0	0	179	2228
5:55 PM	3	0	4	0	0	0	0	0	0	85	20	2	1	61	0	0	176	2202

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	68	0	12	0	0	0	0	0	0	972	128	60	12	1300	0	4	2556
Heavy Trucks	4	0	4		0	0	0		0	12	4		0	28	0		52
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

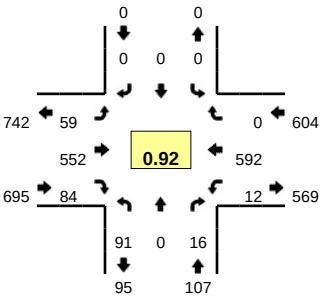
LOCATION: A6 - Aguilar†Rd -- Rocklin†Rd

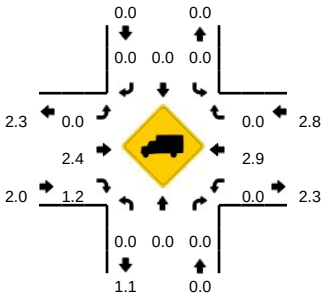
QC JOB #: 14088513

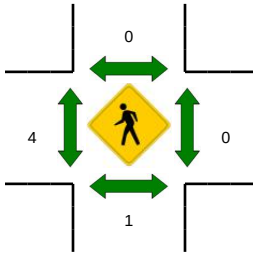
CITY/STATE: Placer, CA

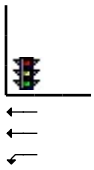
DATE: Sat, Jan 28 2017

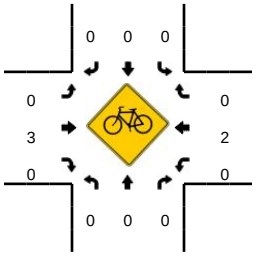
Peak-Hour: 11:35 AM -- 12:35 PM
Peak 15-Min: 11:35 AM -- 11:50 AM

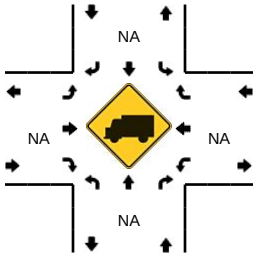


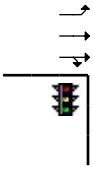


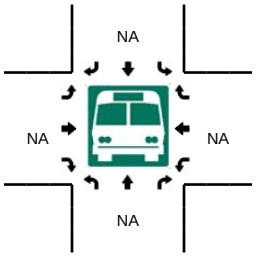












5-Min Count Period Beginning At	A6 - Aguilar†Rd (Northbound)				A6 - Aguilar†Rd (Southbound)				Rocklin†Rd (Eastbound)				Rocklin†Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	2	0	1	0	0	0	0	0	0	43	8	6	2	57	0	0	119	
11:05 AM	12	0	1	0	0	0	0	0	0	29	10	8	0	45	0	0	105	
11:10 AM	8	0	2	0	0	0	0	0	0	35	4	6	0	44	0	0	99	
11:15 AM	4	0	1	0	0	0	0	0	0	41	6	6	1	45	0	0	104	
11:20 AM	6	0	0	0	0	0	0	0	0	48	13	8	1	34	0	0	110	
11:25 AM	10	0	1	0	0	0	0	0	0	34	4	2	0	47	0	0	98	
11:30 AM	5	0	2	0	0	0	0	0	0	41	5	8	0	38	0	0	99	
11:35 AM	11	0	0	0	0	0	0	0	0	54	5	5	1	51	0	0	127	
11:40 AM	4	0	2	0	0	0	0	0	0	49	5	4	1	55	0	0	120	
11:45 AM	8	0	1	0	0	0	0	0	0	50	7	8	0	60	0	0	134	
11:50 AM	5	0	1	0	0	0	0	0	0	45	7	6	0	47	0	0	111	
11:55 AM	8	0	2	0	0	0	0	0	0	42	6	5	2	51	0	0	116	1342
12:00 PM	7	0	0	0	0	0	0	0	0	46	9	7	1	45	0	0	115	1338
12:05 PM	9	0	2	0	0	0	0	0	0	50	14	6	1	52	0	0	134	1367
12:10 PM	5	0	3	0	0	0	0	0	0	54	8	2	1	42	0	1	116	1384
12:15 PM	11	0	2	0	0	0	0	0	0	42	4	2	0	40	0	0	101	1381
12:20 PM	7	0	3	0	0	0	0	0	0	45	2	2	2	58	0	0	119	1390
12:25 PM	11	0	0	0	0	0	0	0	0	41	6	4	2	45	0	0	109	1401
12:30 PM	5	0	0	0	0	0	0	0	0	34	11	8	0	46	0	0	104	1406
12:35 PM	6	0	1	0	0	0	0	0	0	59	6	3	0	37	0	0	112	1391
12:40 PM	5	0	1	0	0	0	0	0	0	53	10	4	2	56	0	0	131	1402
12:45 PM	11	0	2	0	0	0	0	0	0	42	9	6	3	48	0	0	121	1389
12:50 PM	7	0	1	0	0	0	0	0	0	55	10	10	1	26	0	0	110	1388
12:55 PM	7	0	0	0	0	0	0	0	0	56	5	6	1	43	0	0	118	1390

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	92	0	12	0	0	0	0	0	0	612	68	68	8	664	0	0	1524
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	16	0		32
Pedestrians		0				0				12				0			12
Bicycles	0	0	0		0	0	0		0	1	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Dwy S of Brace Rd

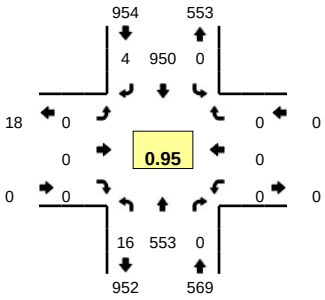
CITY/STATE: Rocklin, CA

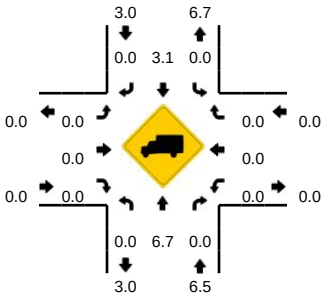
QC JOB #: 13963341

DATE: Thu, Nov 17 2016

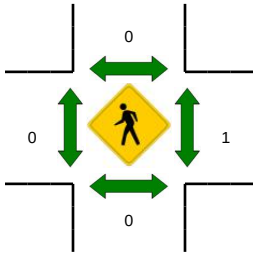
Peak-Hour: 7:40 AM -- 8:40 AM

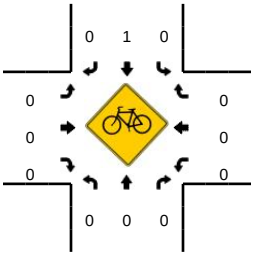
Peak 15-Min: 8:00 AM -- 8:15 AM

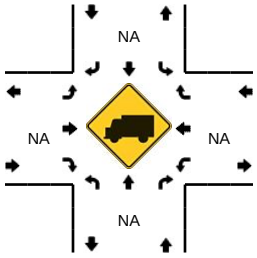


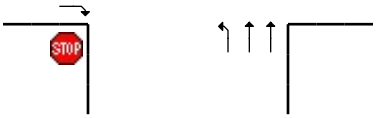


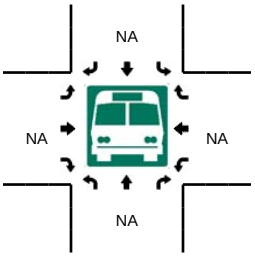
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES











5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Dwy S of Brace Rd (Eastbound)				Dwy S of Brace Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	33	0	0	0	49	0	0	0	0	0	0	0	0	0	0	83	
7:05 AM	0	34	0	0	0	50	0	0	0	0	0	0	0	0	0	0	84	
7:10 AM	0	43	0	0	0	73	0	0	0	0	0	0	0	0	0	0	116	
7:15 AM	1	35	0	0	0	73	0	0	0	0	0	0	0	0	0	0	109	
7:20 AM	0	42	0	0	0	51	0	0	0	0	0	0	0	0	0	0	93	
7:25 AM	0	36	0	0	0	45	0	0	0	0	0	0	0	0	0	0	81	
7:30 AM	0	50	0	0	0	79	0	0	0	0	0	0	0	0	0	0	129	
7:35 AM	2	41	0	0	0	68	1	0	0	0	0	0	0	0	0	0	112	
7:40 AM	0	48	0	0	0	72	0	0	0	0	0	0	0	0	0	0	120	
7:45 AM	3	46	0	0	0	92	0	0	0	0	0	0	0	0	0	0	141	
7:50 AM	0	40	0	0	0	87	0	0	0	0	0	0	0	0	0	0	127	
7:55 AM	0	48	0	0	0	61	0	0	0	0	0	0	0	0	0	0	109	1304
8:00 AM	0	52	0	1	0	85	0	0	0	0	0	0	0	0	0	0	138	1359
8:05 AM	0	54	0	0	0	82	0	0	0	0	0	0	0	0	0	0	136	1411
8:10 AM	2	43	0	1	0	79	0	0	0	0	0	0	0	0	0	0	125	1420
8:15 AM	1	47	0	0	0	79	2	0	0	0	0	0	0	0	0	0	129	1440
8:20 AM	0	45	0	0	0	66	0	0	0	0	0	0	0	0	0	0	111	1458
8:25 AM	1	37	0	0	0	89	0	0	0	0	0	0	0	0	0	0	127	1504
8:30 AM	6	43	0	0	0	75	1	0	0	0	0	0	0	0	0	0	125	1500
8:35 AM	1	50	0	0	0	83	1	0	0	0	0	0	0	0	0	0	135	1523
8:40 AM	0	38	0	0	0	53	0	0	0	0	0	0	0	0	0	0	91	1494
8:45 AM	2	39	0	0	0	48	1	0	0	0	0	0	0	0	0	0	90	1443
8:50 AM	1	38	0	0	0	79	0	0	0	0	0	0	0	0	0	0	118	1434
8:55 AM	5	41	0	0	0	54	1	0	0	0	0	0	0	0	0	0	101	1426

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	596	0	8	0	984	0	0	0	0	0	0	0	0	0	0	1596
Heavy Trucks	0	44	0		0	44	0		0	0	0		0	0	0		88
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Sierra College Blvd -- Dwy S of Brace Rd

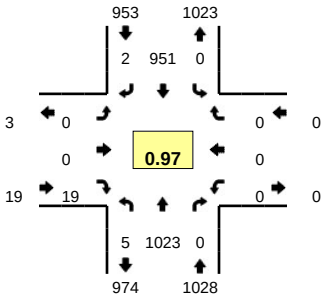
CITY/STATE: Rocklin, CA

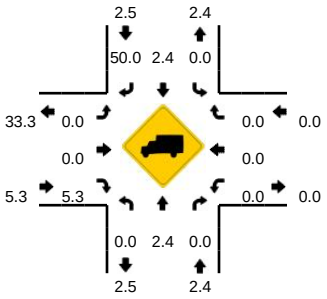
QC JOB #: 13963342

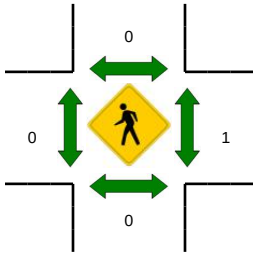
DATE: Thu, Nov 17 2016

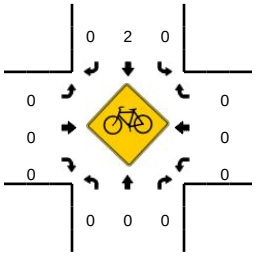
Peak-Hour: 4:40 PM -- 5:40 PM

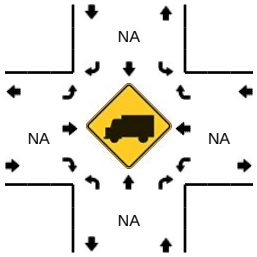
Peak 15-Min: 5:15 PM -- 5:30 PM

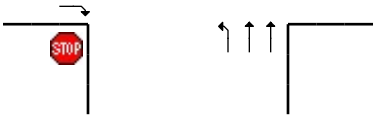


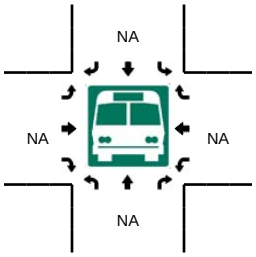












5-Min Count Period Beginning At	Sierra College Blvd (Northbound)				Sierra College Blvd (Southbound)				Dwy S of Brace Rd (Eastbound)				Dwy S of Brace Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	76	0	0	0	67	0	0	0	0	0	0	0	0	0	0	144	
4:05 PM	1	73	0	0	0	79	0	0	0	0	1	0	0	0	0	0	154	
4:10 PM	0	71	0	0	0	98	0	0	0	0	0	0	0	0	0	0	169	
4:15 PM	1	95	0	0	0	73	0	0	0	0	0	0	0	0	0	0	169	
4:20 PM	0	87	0	0	0	83	0	0	0	0	2	0	0	0	0	0	172	
4:25 PM	0	93	0	0	0	53	0	0	0	0	1	0	0	0	0	0	147	
4:30 PM	0	83	0	0	0	80	0	0	0	0	1	0	0	0	0	0	164	
4:35 PM	0	76	0	1	0	66	0	0	0	0	1	0	0	0	0	0	144	
4:40 PM	0	87	0	0	0	94	0	0	0	0	0	0	0	0	0	0	181	
4:45 PM	0	79	0	0	0	71	2	0	0	0	3	0	0	0	0	0	155	
4:50 PM	0	84	0	0	0	74	0	0	0	0	0	0	0	0	0	0	158	
4:55 PM	0	90	0	0	0	64	0	0	0	0	0	0	0	0	0	0	154	1911
5:00 PM	0	73	0	0	0	86	0	0	0	0	5	0	0	0	0	0	164	1931
5:05 PM	1	95	0	0	0	78	0	0	0	0	4	0	0	0	0	0	178	1955
5:10 PM	0	70	0	0	0	91	0	0	0	0	3	0	0	0	0	0	164	1950
5:15 PM	0	99	0	0	0	67	0	0	0	0	1	0	0	0	0	0	167	1948
5:20 PM	0	85	0	1	0	78	0	0	0	0	1	0	0	0	0	0	165	1941
5:25 PM	0	84	0	1	0	98	0	0	0	0	2	0	0	0	0	0	185	1979
5:30 PM	0	78	0	1	0	84	0	0	0	0	0	0	0	0	0	0	163	1978
5:35 PM	0	99	0	1	0	66	0	0	0	0	0	0	0	0	0	0	166	2000
5:40 PM	0	67	0	0	0	53	0	0	0	0	2	0	0	0	0	0	122	1941
5:45 PM	0	78	0	0	0	53	0	0	0	0	0	0	0	0	0	0	131	1917
5:50 PM	0	81	0	0	0	73	0	0	0	0	1	0	0	0	0	0	155	1914
5:55 PM	0	73	0	0	0	66	0	0	0	0	2	0	0	0	0	0	141	1901

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1072	0	8	0	972	0	0	0	0	16	0	0	0	0	0	2068
Heavy Trucks	0	16	0		0	28	0		0	0	0		0	0	0		44
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 12/6/2016 11:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: B8 - Sierra College Blvd -- Dwy S of Brace Rd

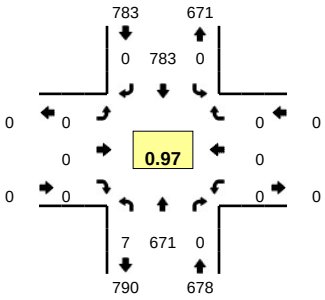
QC JOB #: 14088521

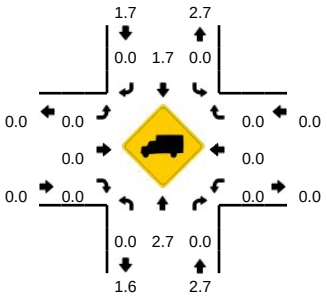
CITY/STATE: Placer, CA

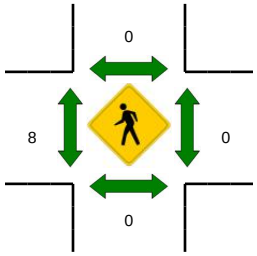
DATE: Sat, Jan 28 2017

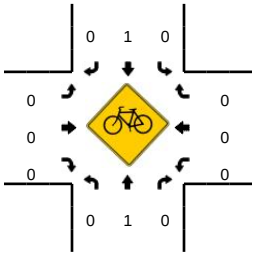
Peak-Hour: 12:00 PM -- 1:00 PM

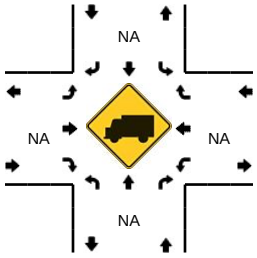
Peak 15-Min: 12:05 PM -- 12:20 PM

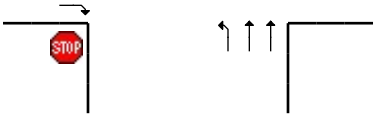


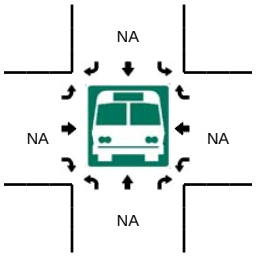












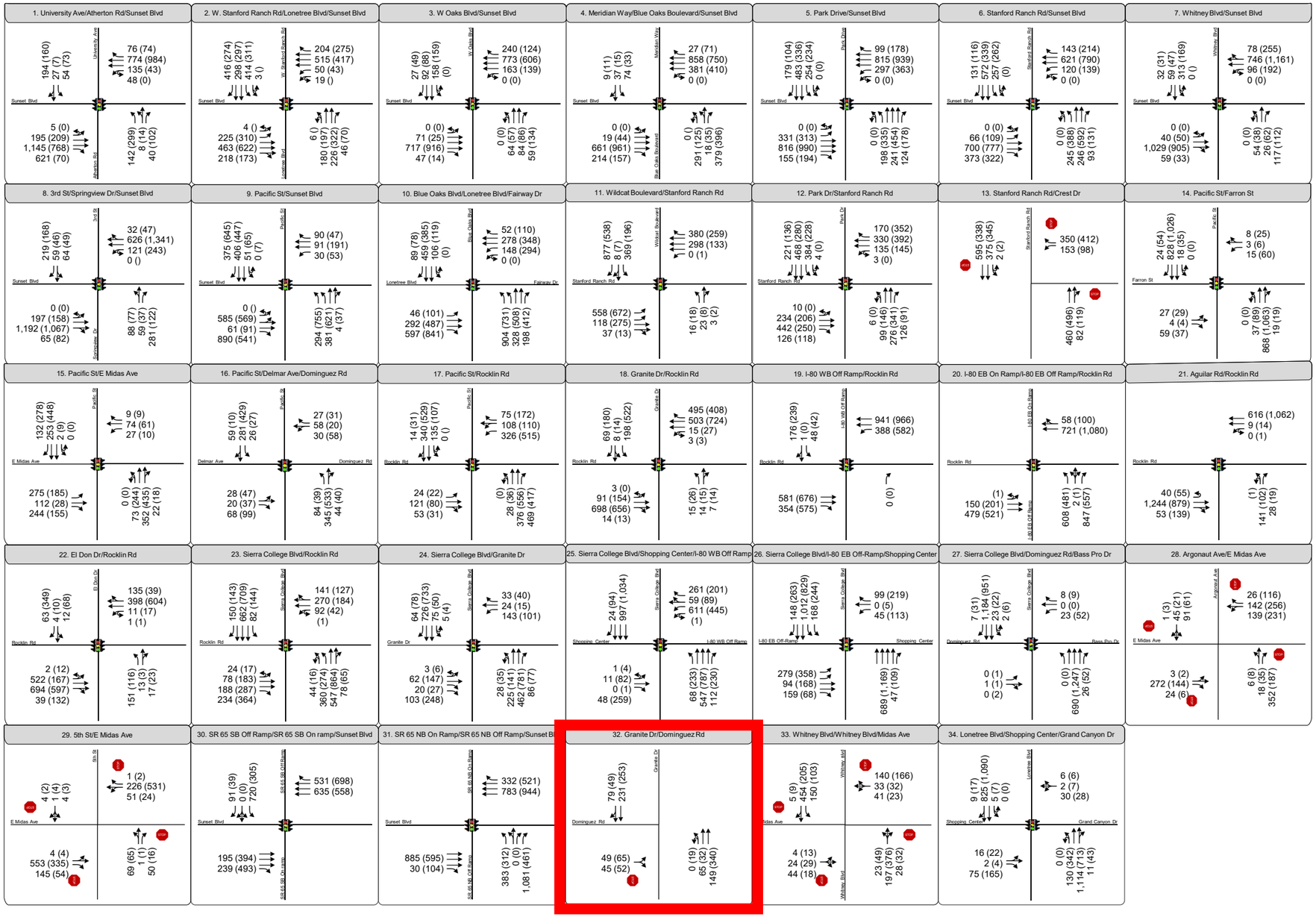
5-Min Count Period Beginning At	B8 - Sierra College Blvd (Northbound)				B8 - Sierra College Blvd (Southbound)				Dwy S of Brace Rd (Eastbound)				Dwy S of Brace Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	45	0	1	0	39	0	0	0	0	0	0	0	0	0	0	85	
11:05 AM	0	58	0	0	0	53	0	0	0	0	0	0	0	0	0	0	111	
11:10 AM	0	44	0	0	0	59	0	0	0	0	0	0	0	0	0	0	103	
11:15 AM	0	46	0	1	0	60	0	0	0	0	2	0	0	0	0	0	109	
11:20 AM	0	58	0	0	0	56	0	0	0	0	0	0	0	0	0	0	114	
11:25 AM	0	50	0	0	0	56	0	0	0	0	0	0	0	0	0	0	106	
11:30 AM	0	52	0	1	0	52	0	0	0	0	0	0	0	0	0	0	105	
11:35 AM	0	43	0	1	0	76	0	0	0	0	0	0	0	0	0	0	120	
11:40 AM	0	56	0	0	0	76	0	0	0	0	0	0	0	0	0	0	132	
11:45 AM	0	41	0	0	0	59	0	0	0	0	0	0	0	0	0	0	100	
11:50 AM	0	61	0	1	0	58	0	0	0	0	0	0	0	0	0	0	120	
11:55 AM	0	54	0	1	0	56	0	0	0	0	0	0	0	0	0	0	111	1316
12:00 PM	0	57	0	0	0	54	0	0	0	0	0	0	0	0	0	0	111	1342
12:05 PM	0	61	0	0	0	66	0	0	0	0	0	0	0	0	0	0	127	1358
12:10 PM	0	53	0	2	0	79	0	0	0	0	0	0	0	0	0	0	134	1389
12:15 PM	0	40	0	0	0	77	0	0	0	0	0	0	0	0	0	0	117	1397
12:20 PM	0	57	0	0	0	52	0	0	0	0	0	0	0	0	0	0	109	1392
12:25 PM	0	60	0	1	0	74	0	0	0	0	0	0	0	0	0	0	135	1421
12:30 PM	0	61	0	1	0	52	0	0	0	0	0	0	0	0	0	0	114	1430
12:35 PM	0	50	0	0	0	71	0	0	0	0	0	0	0	0	0	0	121	1431
12:40 PM	0	46	0	0	0	70	0	0	0	0	0	0	0	0	0	0	116	1415
12:45 PM	0	66	0	2	0	60	0	0	0	0	0	0	0	0	0	0	128	1443
12:50 PM	0	62	0	0	0	60	0	0	0	0	0	0	0	0	0	0	122	1445
12:55 PM	0	58	0	1	0	68	0	0	0	0	0	0	0	0	0	0	127	1461

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	616	0	8	0	888	0	0	0	0	0	0	0	0	0	0	1512
Heavy Trucks	0	16	0		0	4	0		0	0	0		0	0	0		20
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/7/2017 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212



Turn Lane

AM (PM) Peak Hour Traffic Volume

Traffic Signal

Stop Sign

Notes:
- Counts conducted at all locations in April 2016 while schools were in session.
- Only study intersections within Rocklin are shown.

Figure 4

Peak Hour Traffic Volumes and Lane Configurations - Existing Conditions

Type of peak hour being reported: Intersection Peak

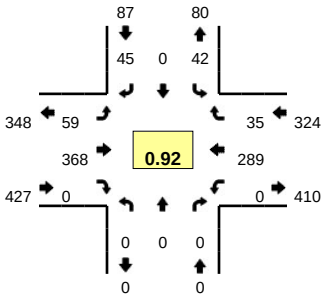
Method for determining peak hour: Total Entering Volume

LOCATION: Dominguez Rd -- Granite Dr

QC JOB #: 14508201

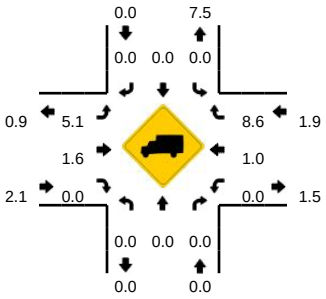
CITY/STATE: Rocklin, CA

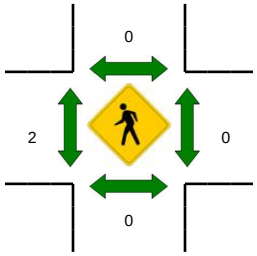
DATE: Sat, Sep 16 2017

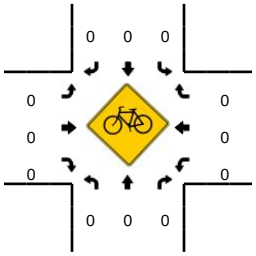


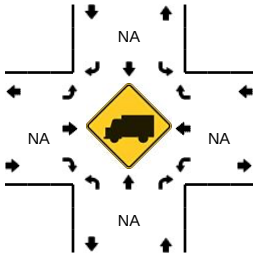
Peak-Hour: 11:25 AM -- 12:25 PM

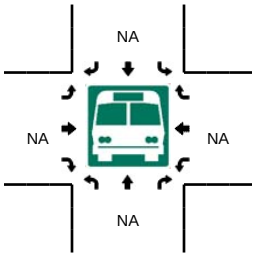
Peak 15-Min: 11:35 AM -- 11:50 AM











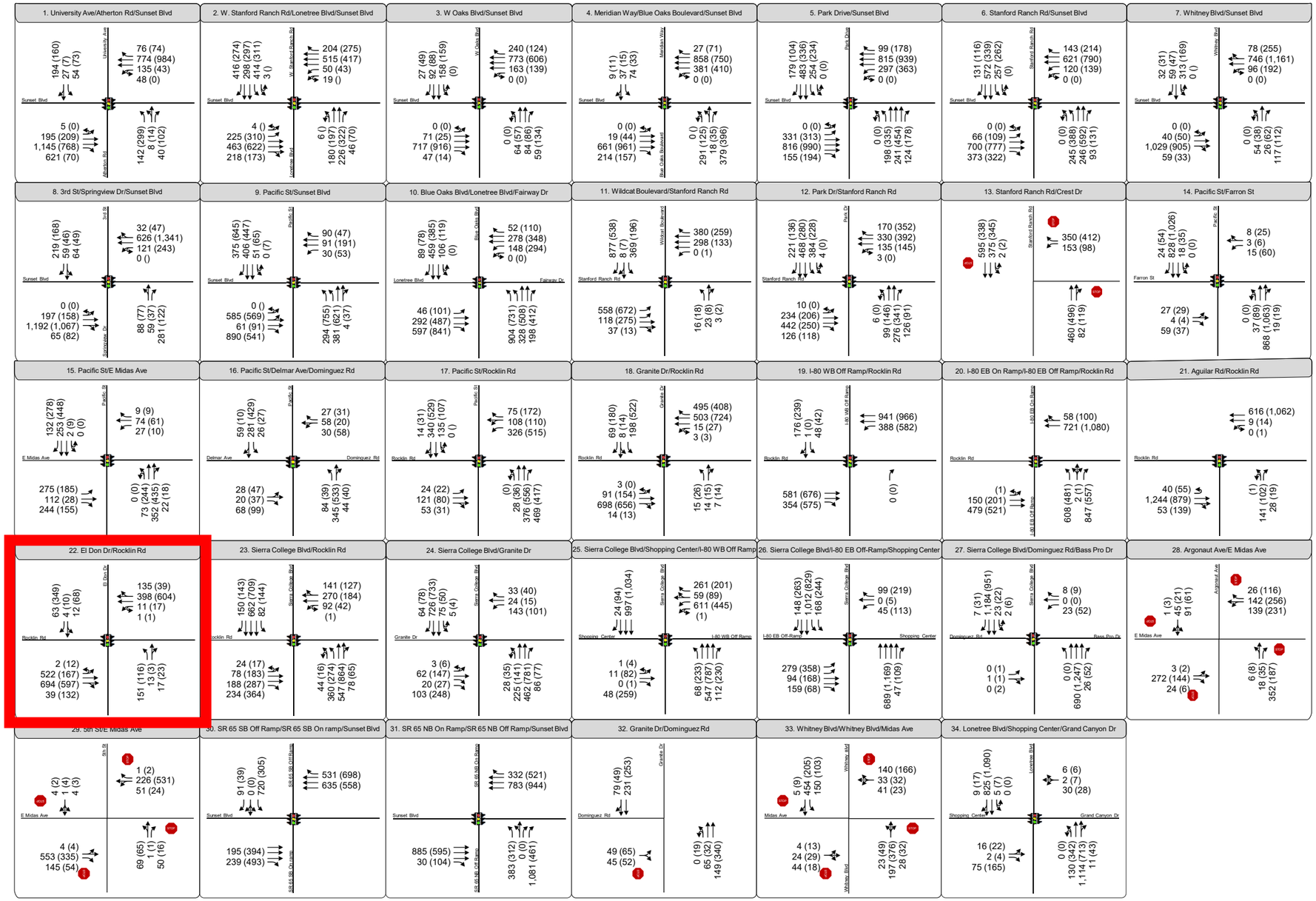
5-Min Count Period Beginning At	Dominguez Rd (Northbound)				Dominguez Rd (Southbound)				Granite Dr (Eastbound)				Granite Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	0	0	0	3	0	1	0	6	29	0	0	0	22	3	0	64	
11:05 AM	0	0	0	0	5	0	5	0	5	30	0	2	0	26	3	0	76	
11:10 AM	0	0	0	0	4	0	1	0	4	22	0	1	0	20	5	0	57	
11:15 AM	0	0	0	0	1	0	3	0	2	21	0	1	0	21	0	0	49	
11:20 AM	0	0	0	0	4	0	2	0	3	23	0	0	0	30	2	0	64	
11:25 AM	0	0	0	0	3	0	3	0	2	28	0	1	0	23	5	0	65	
11:30 AM	0	0	0	0	3	0	8	0	4	27	0	1	0	23	4	0	70	
11:35 AM	0	0	0	0	6	0	4	0	6	36	0	1	0	24	3	0	80	
11:40 AM	0	0	0	0	7	0	1	0	7	31	0	1	0	26	4	0	77	
11:45 AM	0	0	0	0	0	0	6	0	4	32	0	3	0	20	6	0	71	
11:50 AM	0	0	0	0	2	0	3	0	3	31	0	2	0	13	1	0	55	
11:55 AM	0	0	0	0	3	0	2	0	2	32	0	3	0	26	2	0	70	798
12:00 PM	0	0	0	0	2	0	1	0	3	42	0	0	0	30	3	0	81	815
12:05 PM	0	0	0	0	3	0	4	0	4	31	0	0	0	24	3	0	69	808
12:10 PM	0	0	0	0	5	0	5	0	3	23	0	1	0	19	3	0	59	810
12:15 PM	0	0	0	0	2	0	6	0	3	33	0	1	0	26	1	0	72	833
12:20 PM	0	0	0	0	6	0	2	0	4	22	0	0	0	35	0	0	69	838
12:25 PM	0	0	0	0	2	0	1	0	7	33	0	1	0	19	1	0	64	837
12:30 PM	0	0	0	0	1	0	2	0	1	34	0	1	0	19	6	0	64	831
12:35 PM	0	0	0	0	0	0	2	0	2	27	0	2	0	19	3	0	55	806
12:40 PM	0	0	0	0	2	0	3	0	4	35	0	0	0	27	3	0	74	803
12:45 PM	0	0	0	0	3	0	4	0	2	29	0	2	0	24	2	0	66	798
12:50 PM	0	0	0	0	5	0	1	0	7	37	0	3	0	17	1	0	71	814
12:55 PM	0	0	0	0	4	0	1	0	4	29	0	1	0	31	5	0	75	819

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	52	0	44	0	68	396	0	20	0	280	52	0	912
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	0	4		12
Pedestrians		0				0				8				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/21/2017 9:37 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212



Turn Lane

AM (PM) Peak Hour Traffic Volume

Traffic Signal

Stop Sign

Notes:
- Counts conducted at all locations in April 2016 while schools were in session.
- Only study intersections within Rocklin are shown.

Figure 4

Peak Hour Traffic Volumes and Lane Configurations - Existing Conditions

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

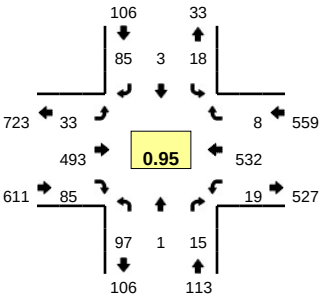
LOCATION: El Don Dr -- Rocklin Rd

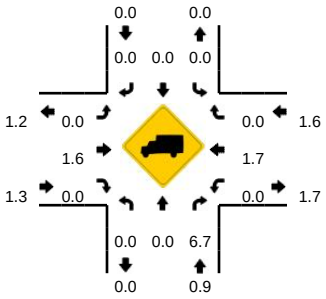
QC JOB #: 14508202

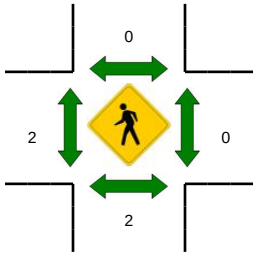
CITY/STATE: Rocklin, CA

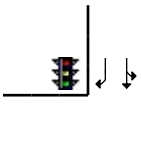
DATE: Sat, Sep 16 2017

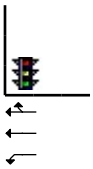
Peak-Hour: 11:25 AM -- 12:25 PM
Peak 15-Min: 12:00 PM -- 12:15 PM

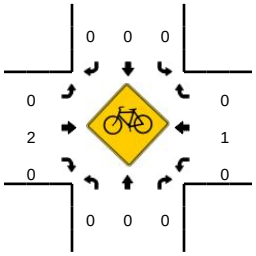


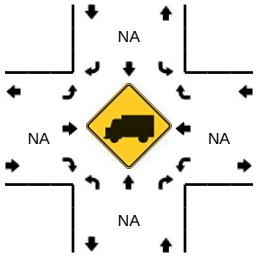


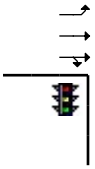


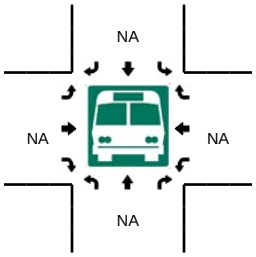












5-Min Count Period Beginning At	El Don Dr (Northbound)				El Don Dr (Southbound)				Rocklin Rd (Eastbound)				Rocklin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	8	0	2	0	0	0	3	0	5	36	5	0	2	34	1	0	96	
11:05 AM	7	1	1	0	3	0	2	0	4	39	7	0	0	44	0	0	108	
11:10 AM	14	1	1	0	0	0	8	0	0	32	11	0	1	38	1	0	107	
11:15 AM	7	1	1	0	0	0	11	0	0	37	9	0	0	39	1	0	106	
11:20 AM	8	0	1	0	4	2	6	0	1	31	4	4	0	21	1	0	83	
11:25 AM	9	0	2	0	3	2	6	0	1	39	7	0	3	45	3	1	121	
11:30 AM	9	0	0	0	1	0	13	0	3	45	10	0	0	41	0	0	122	
11:35 AM	11	0	1	0	2	0	7	0	1	29	6	1	0	44	0	0	102	
11:40 AM	7	0	1	0	1	0	1	0	3	37	8	3	3	46	0	0	110	
11:45 AM	8	0	3	0	0	1	12	0	1	38	7	1	0	43	1	0	115	
11:50 AM	10	0	1	0	4	0	4	0	0	41	6	0	1	50	1	0	118	
11:55 AM	7	0	3	0	1	0	3	0	5	43	8	1	1	41	1	0	114	1302
12:00 PM	7	0	0	0	4	0	8	0	0	54	7	0	1	37	0	0	118	1324
12:05 PM	12	0	0	0	1	0	9	0	1	39	4	2	3	44	0	0	115	1331
12:10 PM	7	0	1	0	1	0	10	0	4	44	7	0	3	54	0	0	131	1355
12:15 PM	4	0	2	0	0	0	8	0	3	42	5	1	1	47	1	0	114	1363
12:20 PM	6	1	1	0	0	0	4	0	2	42	10	0	2	40	1	0	109	1389
12:25 PM	8	0	1	0	0	0	8	0	0	45	5	0	0	43	1	0	111	1379
12:30 PM	8	0	2	0	0	0	5	0	2	55	9	2	1	22	2	0	108	1365
12:35 PM	8	1	1	0	2	0	5	0	0	51	10	0	1	37	2	0	118	1381
12:40 PM	4	0	3	0	2	0	2	0	2	39	10	1	1	40	1	0	105	1376
12:45 PM	5	0	2	0	1	0	2	0	0	43	15	1	0	56	0	0	125	1386
12:50 PM	8	0	2	0	1	0	4	0	0	51	8	0	0	39	0	0	113	1381
12:55 PM	13	0	1	0	1	0	4	0	2	36	4	1	1	31	0	0	94	1361

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	104	0	4	0	24	0	108	0	20	548	72	8	28	540	0	0	1456
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	12	0		16
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/21/2017 9:37 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

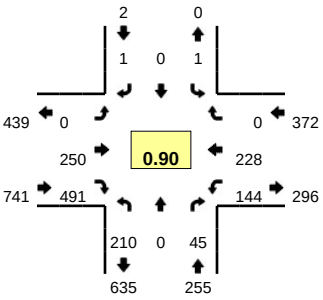
Type of peak hour being reported: Intersection Peak

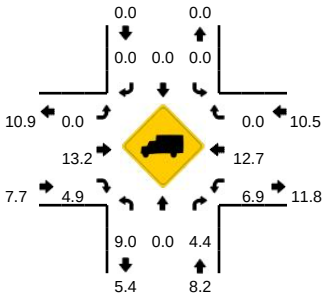
Method for determining peak hour: Total Entering Volume

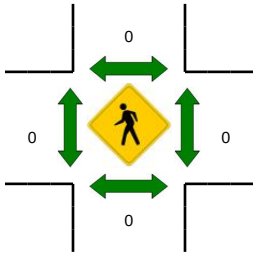
LOCATION: 28. Sierra College Blvd -- SR 193 (Lincoln Newcastle Hwy)
CITY/STATE: Loomis, CA

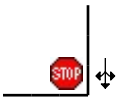
QC JOB #: 14812801
DATE: Wed, Oct 10 2018

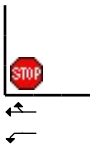
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

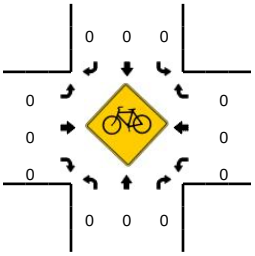


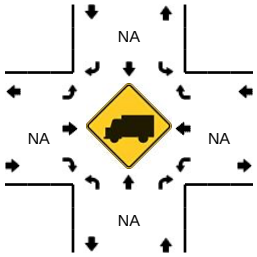


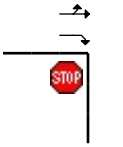


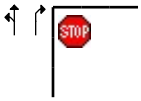


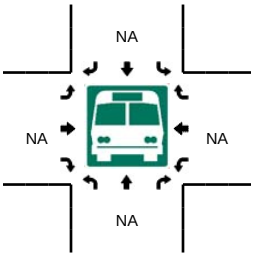












5-Min Count Period Beginning At	28. Sierra College Blvd (Northbound)				28. Sierra College Blvd (Southbound)				SR 193 (Lincoln Newcastle Hwy) (Eastbound)				SR 193 (Lincoln Newcastle Hwy) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	9	0	1	0	0	0	0	0	0	14	26	0	14	10	0	0	74	
7:05 AM	8	0	4	0	0	0	0	0	0	19	17	0	11	16	0	0	75	
7:10 AM	6	0	3	0	0	0	0	0	0	19	23	0	19	13	0	0	83	
7:15 AM	13	0	2	0	0	0	0	0	0	14	34	0	12	16	0	0	91	
7:20 AM	21	0	7	0	0	0	0	0	0	21	51	0	17	12	0	0	129	
7:25 AM	15	0	2	0	0	0	0	0	0	12	47	0	14	14	0	0	104	
7:30 AM	9	0	2	0	0	0	0	0	0	14	41	0	12	21	0	0	99	
7:35 AM	9	0	5	0	0	0	0	0	0	21	51	0	20	25	0	0	131	
7:40 AM	24	0	1	0	0	0	1	0	0	21	46	0	11	33	0	0	137	
7:45 AM	18	0	3	0	0	0	0	0	0	25	39	0	7	22	0	0	114	
7:50 AM	26	0	4	0	0	0	0	0	0	17	42	0	12	14	0	0	115	
7:55 AM	15	0	4	0	0	0	0	0	0	20	35	0	14	20	0	0	108	1260
8:00 AM	24	0	2	0	0	0	0	0	0	22	39	0	10	14	0	0	111	1297
8:05 AM	16	0	5	0	0	0	0	0	0	26	38	0	10	22	0	0	117	1339
8:10 AM	15	0	3	0	1	0	0	0	0	22	40	0	10	14	0	0	105	1361
8:15 AM	18	0	7	0	0	0	0	0	0	29	22	0	7	17	0	0	100	1370
8:20 AM	14	1	4	0	0	0	0	0	0	14	16	0	11	20	0	0	80	1321
8:25 AM	20	1	4	0	0	0	0	0	0	14	36	0	14	18	0	0	107	1324
8:30 AM	20	0	6	0	0	0	0	0	0	18	24	0	6	10	0	0	84	1309
8:35 AM	14	0	5	0	0	0	1	0	0	17	20	0	9	9	0	0	75	1253
8:40 AM	19	0	6	0	0	0	0	0	0	19	20	0	5	13	0	0	82	1198
8:45 AM	15	0	11	0	0	0	0	0	0	16	25	0	15	15	0	0	97	1181
8:50 AM	12	1	3	0	0	1	0	0	0	19	21	0	9	15	0	0	81	1147
8:55 AM	13	0	7	0	0	0	0	0	0	14	23	0	7	12	0	0	76	1115

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	204	0	36	0	0	0	4	0	0	268	544	0	152	320	0	0	1528
Heavy Trucks	8	0	0		0	0	0		0	16	40		8	24	0		96
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

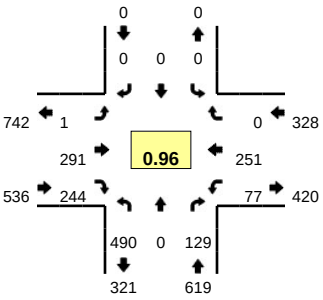
Type of peak hour being reported: Intersection Peak

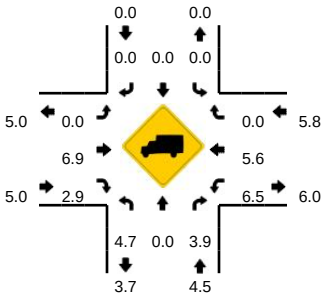
Method for determining peak hour: Total Entering Volume

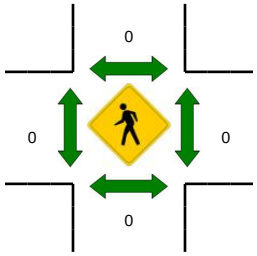
LOCATION: 28. Sierra College Blvd -- SR 193 (Lincoln Newcastle Hwy)
CITY/STATE: Loomis, CA

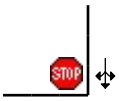
QC JOB #: 14812802
DATE: Wed, Oct 10 2018

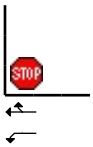
Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:35 PM -- 5:50 PM

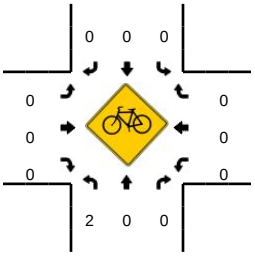


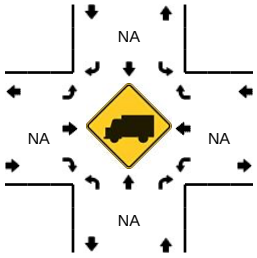


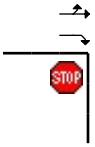


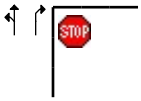


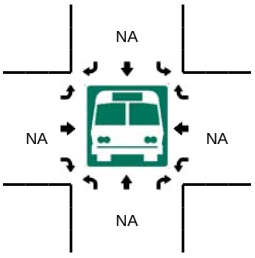












5-Min Count Period Beginning At	28. Sierra College Blvd (Northbound)				28. Sierra College Blvd (Southbound)				SR 193 (Lincoln Newcastle Hwy) (Eastbound)				SR 193 (Lincoln Newcastle Hwy) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	39	0	12	0	0	0	0	0	0	26	10	0	8	22	0	0	117	
4:05 PM	42	0	17	0	0	0	0	0	0	17	16	0	10	18	0	0	120	
4:10 PM	45	0	7	0	0	0	0	0	0	17	26	0	7	27	0	0	129	
4:15 PM	40	0	7	0	0	0	0	0	0	31	21	0	4	20	0	0	123	
4:20 PM	44	0	15	0	0	0	0	0	0	19	18	0	6	20	0	0	122	
4:25 PM	48	0	12	0	0	0	0	0	0	18	26	0	4	19	0	0	127	
4:30 PM	34	0	11	0	0	0	0	0	0	16	23	0	11	20	0	0	115	
4:35 PM	41	0	15	0	0	0	0	0	0	21	11	0	9	19	0	0	116	
4:40 PM	44	0	7	0	0	0	0	0	0	18	14	0	10	17	0	0	110	
4:45 PM	43	0	4	0	0	0	0	0	0	25	27	0	9	23	0	0	131	
4:50 PM	43	0	7	0	0	0	0	0	0	25	22	0	8	16	0	0	121	
4:55 PM	42	0	7	0	0	0	0	0	0	27	10	0	8	13	0	0	107	1438
5:00 PM	46	0	10	0	0	0	0	0	0	23	25	1	4	14	0	0	123	1444
5:05 PM	41	0	12	0	0	0	0	0	0	23	21	0	8	20	0	0	125	1449
5:10 PM	24	0	4	0	0	0	0	0	0	25	27	0	4	31	0	0	115	1435
5:15 PM	52	0	22	0	0	0	0	0	0	13	16	0	4	20	0	0	127	1439
5:20 PM	38	0	14	0	0	0	0	0	0	24	22	0	3	27	0	0	128	1445
5:25 PM	42	0	10	0	0	0	0	0	0	22	18	0	10	26	0	0	128	1446
5:30 PM	41	0	6	0	0	0	0	0	0	22	15	0	10	29	0	0	123	1454
5:35 PM	42	0	12	0	0	0	0	0	0	26	22	0	7	13	0	0	122	1460
5:40 PM	39	0	8	0	0	0	0	0	0	31	24	0	5	21	0	0	128	1478
5:45 PM	40	0	17	0	0	0	0	0	0	30	22	0	6	21	0	0	136	1483
5:50 PM	47	0	11	0	0	0	0	0	0	14	12	0	13	13	0	0	110	1472
5:55 PM	42	0	9	0	0	0	0	0	1	17	12	0	9	18	0	0	108	1473

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	484	0	148	0	0	0	0	0	0	348	272	0	72	220	0	0	1544
Heavy Trucks	28	0	4		0	0	0		0	20	8		4	16	0		80
Pedestrians		0				0				0				0			0
Bicycles	1	0	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

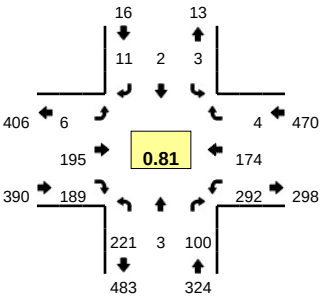
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

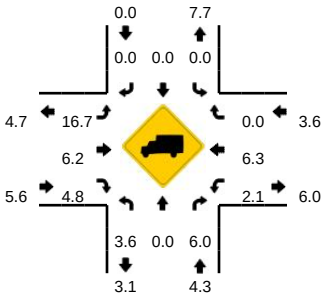
Method for determining peak hour: Total Entering Volume

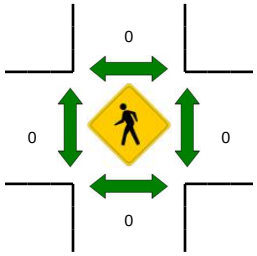
LOCATION: 28. Sierra College Blvd -- SR 193 (Lincoln Newcastle Hwy)
CITY/STATE: Loomis, CA

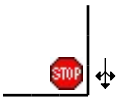
QC JOB #: 14812803
DATE: Sat, Oct 13 2018

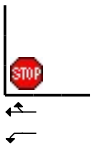


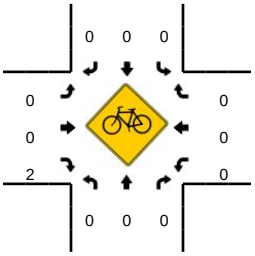
Peak-Hour: 11:30 AM -- 12:30 PM
Peak 15-Min: 11:50 AM -- 12:05 PM

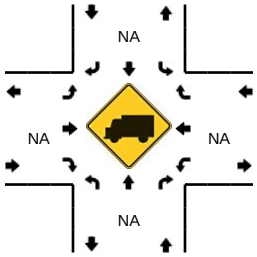


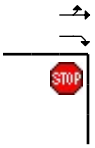


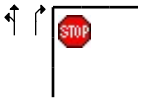


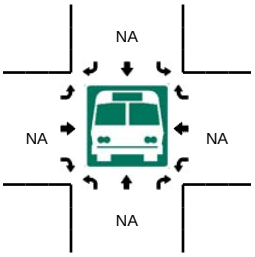












5-Min Count Period Beginning At	28. Sierra College Blvd (Northbound)				28. Sierra College Blvd (Southbound)				SR 193 (Lincoln Newcastle Hwy) (Eastbound)				SR 193 (Lincoln Newcastle Hwy) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	15	0	9	0	1	0	2	0	0	12	21	0	9	15	1	0	85	
11:05 AM	11	1	4	0	0	1	1	0	2	9	9	0	9	14	0	0	61	
11:10 AM	18	0	4	0	0	0	0	0	2	13	22	0	9	23	1	0	92	
11:15 AM	16	1	7	0	0	0	2	0	1	14	17	0	6	17	0	0	81	
11:20 AM	11	0	10	0	0	0	0	0	1	16	16	0	4	16	1	0	75	
11:25 AM	17	1	7	0	0	0	0	0	0	13	14	0	10	11	2	0	75	
11:30 AM	17	0	12	0	0	0	2	0	0	11	16	0	10	19	1	0	88	
11:35 AM	14	1	7	0	0	0	0	0	1	19	21	0	32	14	0	0	109	
11:40 AM	20	0	11	0	1	0	2	0	2	24	17	0	7	21	1	0	106	
11:45 AM	15	0	5	0	0	1	1	0	0	19	12	0	6	12	0	0	71	
11:50 AM	18	0	9	0	0	0	0	0	0	8	12	0	79	18	0	0	144	
11:55 AM	27	1	9	0	0	0	1	0	1	19	17	0	57	6	0	0	138	1125
12:00 PM	13	1	5	0	0	1	0	0	0	10	19	0	30	9	0	0	88	1128
12:05 PM	15	0	9	0	0	0	2	0	0	23	15	0	39	8	1	0	112	1179
12:10 PM	19	0	8	0	2	0	2	0	1	19	15	0	11	10	1	0	88	1175
12:15 PM	20	0	6	0	0	0	0	0	0	14	11	0	8	17	0	0	76	1170
12:20 PM	21	0	9	0	0	0	1	0	1	13	15	0	9	20	0	0	89	1184
12:25 PM	22	0	10	0	0	0	0	0	0	16	19	0	4	20	0	0	91	1200
12:30 PM	21	0	9	0	0	0	1	0	1	17	14	0	5	9	0	0	77	1189
12:35 PM	22	0	13	0	0	0	0	0	0	13	13	0	12	12	1	0	86	1166
12:40 PM	19	0	5	0	0	0	0	0	0	19	14	0	6	15	0	0	78	1138
12:45 PM	18	1	15	0	0	0	1	0	0	22	16	0	8	18	1	0	100	1167
12:50 PM	19	0	14	0	0	0	1	0	1	14	17	0	8	15	0	0	89	1112
12:55 PM	17	0	3	0	1	2	1	0	1	13	14	0	6	10	2	0	70	1044

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	232	8	92	0	0	4	4	0	4	148	192	0	664	132	0	0	1480
Heavy Trucks	12	0	4		0	0	0		4	8	12		8	8	0		56
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 28. Sierra College Blvd -- English Colony Way

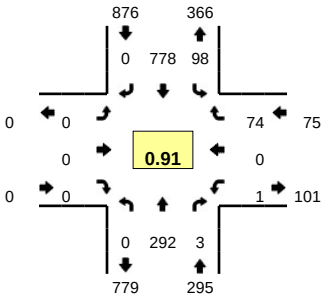
CITY/STATE: Loomis, CA

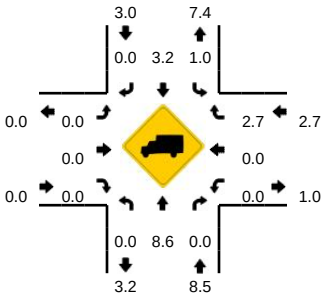
QC JOB #: 14812804

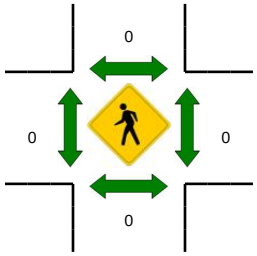
DATE: Wed, Oct 10 2018

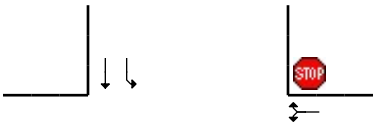
Peak-Hour: 7:20 AM -- 8:20 AM

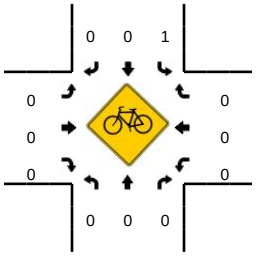
Peak 15-Min: 7:35 AM -- 7:50 AM

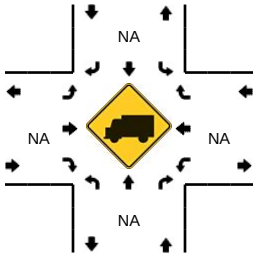


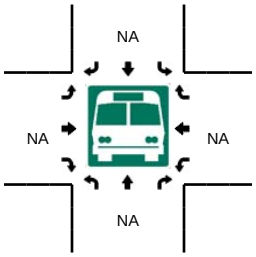












5-Min Count Period Beginning At	28. Sierra College Blvd (Northbound)				28. Sierra College Blvd (Southbound)				English Colony Way (Eastbound)				English Colony Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	15	1	0	1	48	0	0	0	0	0	0	0	0	7	0	72	
7:05 AM	0	21	0	0	5	48	0	0	0	0	0	0	0	0	1	0	75	
7:10 AM	0	15	0	0	2	50	0	0	0	0	0	0	0	0	3	0	70	
7:15 AM	0	24	0	0	7	51	0	0	0	0	0	0	0	0	3	0	85	
7:20 AM	0	32	1	0	6	61	0	0	0	0	0	0	0	0	9	0	109	
7:25 AM	0	19	0	0	11	72	0	0	0	0	0	0	0	0	6	0	108	
7:30 AM	0	13	0	0	7	72	0	0	0	0	0	0	0	0	5	0	97	
7:35 AM	0	17	0	0	8	66	0	0	0	0	0	0	0	0	9	0	100	
7:40 AM	0	25	0	0	6	83	0	0	0	0	0	0	1	0	5	0	120	
7:45 AM	0	32	0	0	7	81	0	0	0	0	0	0	0	0	2	0	122	
7:50 AM	0	24	0	0	6	61	0	0	0	0	0	0	0	0	6	0	97	
7:55 AM	0	35	0	0	7	63	0	0	0	0	0	0	0	0	6	0	111	1166
8:00 AM	0	22	0	0	21	55	0	0	0	0	0	0	0	0	3	0	101	1195
8:05 AM	0	23	1	0	6	51	0	0	0	0	0	0	0	0	14	0	95	1215
8:10 AM	0	24	1	0	7	56	0	0	0	0	0	0	0	0	5	0	93	1238
8:15 AM	0	26	0	0	6	57	0	0	0	0	0	0	0	0	4	0	93	1246
8:20 AM	0	28	0	0	4	33	0	0	0	0	0	0	0	0	6	0	71	1208
8:25 AM	0	27	0	0	6	37	0	0	0	0	0	0	0	0	5	0	75	1175
8:30 AM	0	28	1	0	6	51	0	0	0	0	0	0	0	0	9	0	95	1173
8:35 AM	0	22	0	0	4	40	0	0	0	0	0	0	0	0	1	0	67	1140
8:40 AM	0	33	1	0	2	40	0	0	0	0	0	0	0	0	10	0	86	1106
8:45 AM	0	21	0	0	0	47	0	0	0	0	0	0	0	0	5	0	73	1057
8:50 AM	0	22	2	0	2	45	0	0	0	0	0	0	0	0	3	0	74	1034
8:55 AM	0	22	0	0	2	42	0	0	0	0	0	0	2	0	5	0	73	996

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	296	0	0	84	920	0	0	0	0	0	0	4	0	64	0	1368
Heavy Trucks	0	28	0		0	28	0		0	0	0		0	0	0		56
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

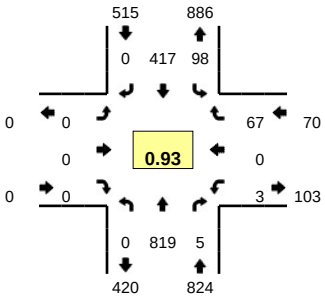
LOCATION: 28. Sierra College Blvd -- English Colony Way

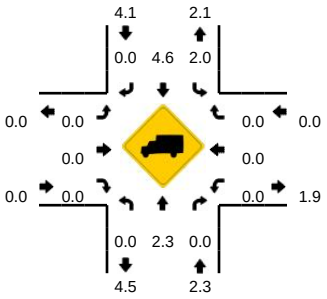
QC JOB #: 14812805

CITY/STATE: Loomis, CA

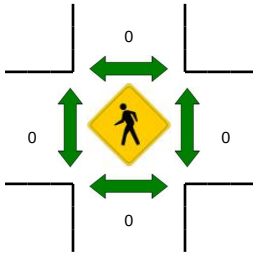
DATE: Wed, Oct 10 2018

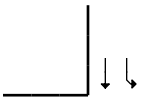
Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:20 PM -- 5:35 PM

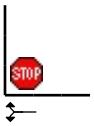


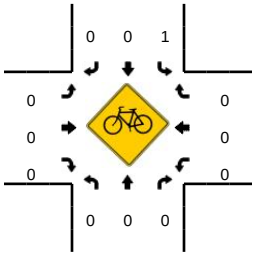


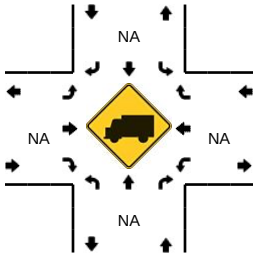
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

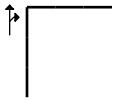


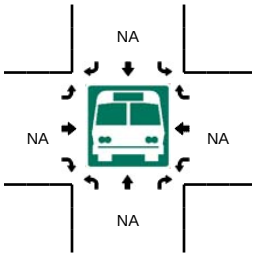












5-Min Count Period Beginning At	28. Sierra College Blvd (Northbound)				28. Sierra College Blvd (Southbound)				English Colony Way (Eastbound)				English Colony Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	68	0	0	7	35	0	0	0	0	0	0	1	0	7	0	118	
4:05 PM	0	56	0	0	7	41	0	0	0	0	0	0	1	0	12	0	117	
4:10 PM	0	70	0	0	9	31	0	0	0	0	0	0	0	0	6	0	116	
4:15 PM	0	71	1	0	10	49	0	0	0	0	0	0	1	0	7	0	139	
4:20 PM	0	62	0	0	8	33	0	0	0	0	0	0	0	0	9	0	112	
4:25 PM	0	57	3	0	6	37	0	0	0	0	0	0	0	0	6	0	109	
4:30 PM	0	85	1	0	5	34	0	0	0	0	0	0	1	0	7	0	133	
4:35 PM	0	49	1	0	8	37	0	0	0	0	0	0	0	0	12	0	107	
4:40 PM	0	62	1	0	5	38	0	0	0	0	0	0	0	0	8	0	114	
4:45 PM	0	67	0	0	8	29	0	0	0	0	0	0	0	0	9	0	113	
4:50 PM	0	64	0	0	8	37	0	0	0	0	0	0	0	0	8	0	117	
4:55 PM	0	62	1	0	8	35	0	0	0	0	0	0	0	0	4	0	110	1405
5:00 PM	0	59	0	0	6	26	0	0	0	0	0	0	0	0	2	0	93	1380
5:05 PM	0	60	0	0	8	37	0	0	0	0	0	0	0	0	7	0	112	1375
5:10 PM	0	59	1	0	8	38	0	0	0	0	0	0	1	0	12	0	119	1378
5:15 PM	0	63	0	0	13	38	0	0	0	0	0	0	0	0	3	0	117	1356
5:20 PM	0	91	0	0	8	34	0	0	0	0	0	0	0	0	3	0	136	1380
5:25 PM	0	76	2	0	8	21	0	0	0	0	0	0	0	0	6	0	113	1384
5:30 PM	0	78	1	0	5	39	0	0	0	0	0	0	0	0	5	0	128	1379
5:35 PM	0	72	0	0	11	33	0	0	0	0	0	0	0	0	5	0	121	1393
5:40 PM	0	74	0	0	7	39	0	0	0	0	0	0	1	0	3	0	124	1403
5:45 PM	0	61	0	0	8	40	0	0	0	0	0	0	1	0	9	0	119	1409
5:50 PM	0	44	1	0	1	31	0	0	0	0	0	0	0	0	5	0	82	1374
5:55 PM	0	41	0	0	6	29	0	0	0	0	0	0	0	0	5	0	81	1345

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	980	12	0	84	376	0	0	0	0	0	0	0	0	56	0	1508
Heavy Trucks	0	32	0		4	16	0		0	0	0		0	0	0		52
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		1	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

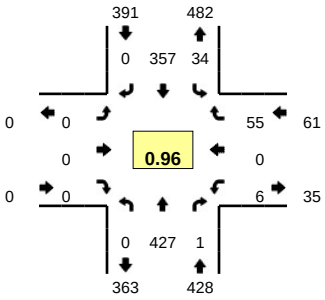
LOCATION: 28. Sierra College Blvd -- English Colony Way

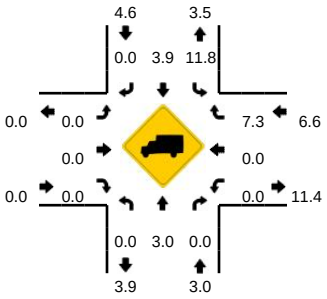
QC JOB #: 14812806

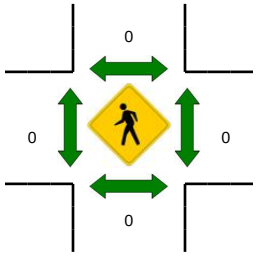
CITY/STATE: Loomis, CA

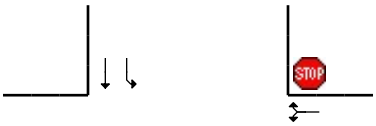
DATE: Sat, Oct 13 2018

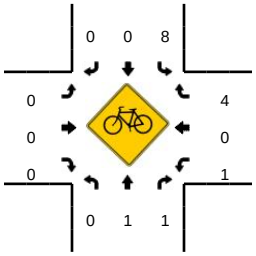
Peak-Hour: 11:50 AM -- 12:50 PM
Peak 15-Min: 12:20 PM -- 12:35 PM

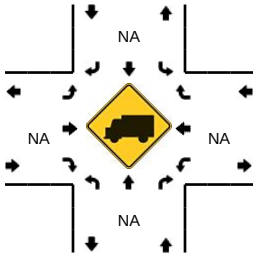


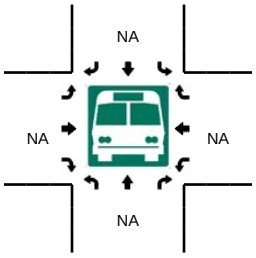












5-Min Count Period Beginning At	28. Sierra College Blvd (Northbound)				28. Sierra College Blvd (Southbound)				English Colony Way (Eastbound)				English Colony Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	14	2	0	3	28	0	0	0	0	0	0	1	0	5	0	53	
11:05 AM	0	22	0	0	9	33	0	0	0	0	0	0	0	0	5	0	69	
11:10 AM	0	22	0	0	3	29	0	0	0	0	0	0	0	0	2	0	56	
11:15 AM	0	29	0	0	7	33	0	0	0	0	0	0	0	0	5	0	74	
11:20 AM	0	31	0	0	3	37	0	0	0	0	0	0	0	0	2	0	73	
11:25 AM	0	28	0	0	5	32	0	0	0	0	0	0	0	0	5	0	70	
11:30 AM	0	27	0	0	6	29	0	0	0	0	0	0	0	0	8	0	70	
11:35 AM	0	33	0	0	2	23	0	0	0	0	0	0	1	0	6	0	65	
11:40 AM	0	23	0	0	1	41	0	0	0	0	0	0	0	0	5	0	70	
11:45 AM	0	34	1	0	0	33	0	0	0	0	0	0	0	0	3	0	71	
11:50 AM	0	34	0	0	5	21	0	0	0	0	0	0	0	0	7	0	67	
11:55 AM	0	30	0	0	3	31	0	0	0	0	0	0	0	0	6	0	70	808
12:00 PM	0	35	0	0	2	28	0	0	0	0	0	0	2	0	3	0	70	825
12:05 PM	0	33	0	0	3	36	0	0	0	0	0	0	1	0	4	0	77	833
12:10 PM	0	34	0	0	3	28	0	0	0	0	0	0	1	0	3	0	69	846
12:15 PM	0	37	0	0	2	26	0	0	0	0	0	0	1	0	5	0	71	843
12:20 PM	0	33	0	0	6	31	0	0	0	0	0	0	0	0	4	0	74	844
12:25 PM	0	35	0	0	4	33	0	0	0	0	0	0	0	0	3	0	75	849
12:30 PM	0	42	0	0	1	32	0	0	0	0	0	0	0	0	4	0	79	858
12:35 PM	0	29	0	0	0	33	0	0	0	0	0	0	0	0	6	0	68	861
12:40 PM	0	36	1	0	2	28	0	0	0	0	0	0	0	0	4	0	71	862
12:45 PM	0	49	0	0	3	30	0	0	0	0	0	0	1	0	6	0	89	880
12:50 PM	0	26	0	0	2	33	0	0	0	0	0	0	2	0	1	0	64	877
12:55 PM	0	29	1	0	6	29	0	0	0	0	0	0	0	0	5	0	70	877

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	440	0	0	44	384	0	0	0	0	0	0	0	0	44	0	912
Heavy Trucks	0	16	0		4	8	0		0	0	0		0	0	0		28
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		4	0	0		0	0	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

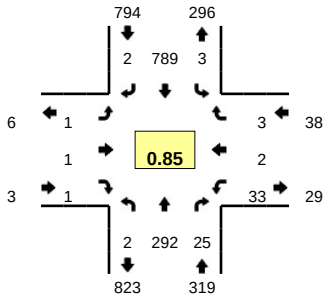
Type of peak hour being reported: Intersection Peak

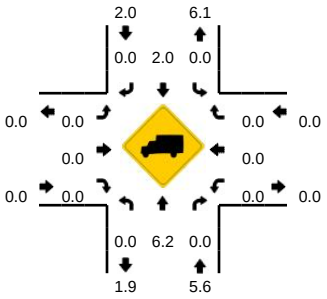
Method for determining peak hour: Total Entering Volume

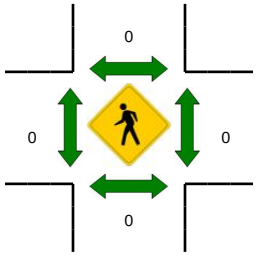
LOCATION: 28. Sierra College Blvd -- Delmar Ave
CITY/STATE: Loomis, CA

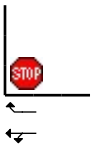
QC JOB #: 14812807
DATE: Wed, Oct 10 2018

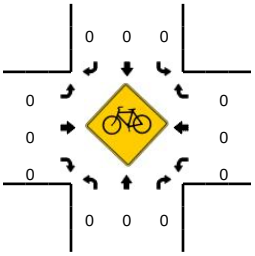
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

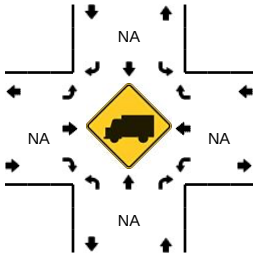


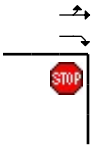


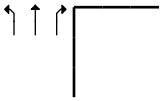


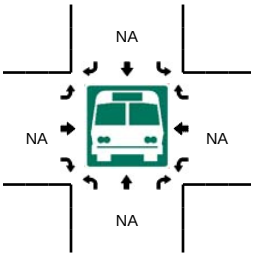












5-Min Count Period Beginning At	28. Sierra College Blvd (Northbound)				28. Sierra College Blvd (Southbound)				Delmar Ave (Eastbound)				Delmar Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	19	3	0	0	48	0	0	0	0	0	0	2	0	0	0	72	
7:05 AM	0	23	2	0	0	56	0	0	0	0	0	0	5	0	0	0	86	
7:10 AM	1	25	1	0	0	38	0	0	0	0	1	0	2	0	0	0	68	
7:15 AM	0	23	0	0	0	54	0	0	1	0	0	0	3	0	0	0	81	
7:20 AM	0	27	5	0	0	54	0	0	0	0	0	0	3	0	0	0	89	
7:25 AM	0	15	3	0	0	81	1	0	0	0	0	0	3	0	0	0	103	
7:30 AM	1	16	0	0	0	68	0	0	0	0	1	0	2	1	0	0	89	
7:35 AM	0	16	4	0	0	62	0	0	1	0	0	0	2	0	0	0	85	
7:40 AM	0	28	1	0	0	89	0	0	0	0	0	0	4	0	1	0	123	
7:45 AM	0	35	2	0	0	77	0	0	0	1	0	0	2	0	1	0	118	
7:50 AM	0	27	0	0	0	70	1	0	0	0	0	0	1	0	0	0	99	
7:55 AM	0	29	3	0	0	65	0	0	0	0	0	0	5	0	0	0	102	1115
8:00 AM	0	23	1	0	0	52	0	0	0	0	0	0	3	0	1	0	80	1123
8:05 AM	0	26	2	0	2	52	0	0	0	0	0	0	2	1	0	0	85	1122
8:10 AM	0	19	2	0	0	52	0	0	0	0	0	0	1	0	0	0	74	1128
8:15 AM	1	31	2	0	1	67	0	0	0	0	0	0	5	0	0	0	107	1154
8:20 AM	0	26	1	0	0	39	0	0	0	0	0	0	5	2	0	0	73	1138
8:25 AM	0	29	5	0	0	29	0	0	0	0	0	0	2	0	0	0	65	1100
8:30 AM	0	18	1	0	0	51	1	0	0	0	3	0	0	0	0	0	74	1085
8:35 AM	0	37	4	0	0	47	0	0	0	0	0	0	6	0	0	0	94	1094
8:40 AM	0	23	2	0	0	41	0	0	0	0	0	0	1	0	0	0	67	1038
8:45 AM	0	22	1	0	0	49	0	0	0	0	0	0	1	0	0	0	73	993
8:50 AM	1	29	2	0	0	44	0	0	0	0	0	0	3	0	0	0	79	973
8:55 AM	1	20	4	0	0	30	0	0	0	0	1	0	2	0	0	0	58	929

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	360	12	0	0	944	4	0	0	4	0	0	28	0	8	0	1360
Heavy Trucks	0	24	0		0	28	0		0	0	0		0	0	0		52
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 28. Sierra College Blvd -- Delmar Ave

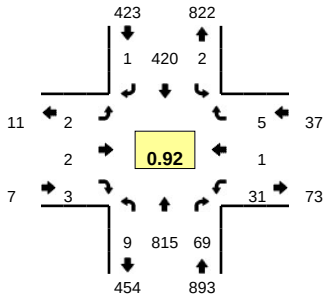
CITY/STATE: Loomis, CA

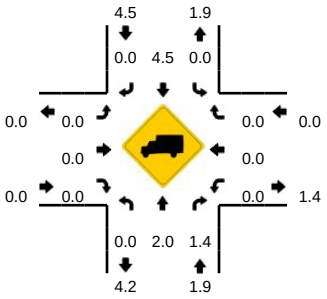
QC JOB #: 14812808

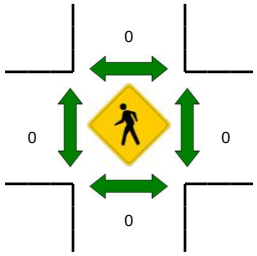
DATE: Wed, Oct 10 2018

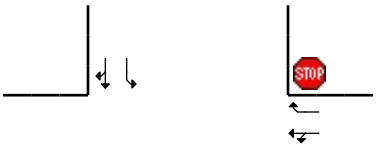
Peak-Hour: 4:50 PM -- 5:50 PM

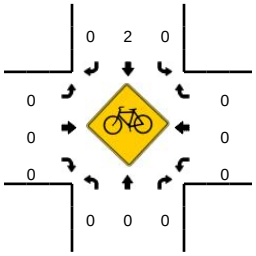
Peak 15-Min: 5:10 PM -- 5:25 PM

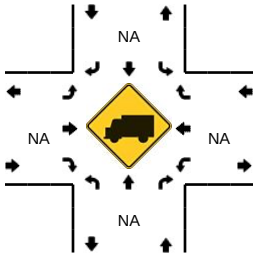


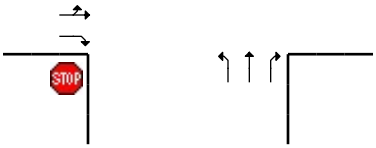


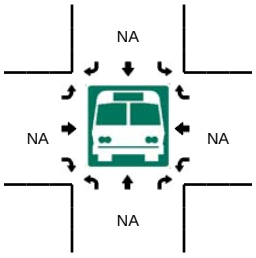












5-Min Count Period Beginning At	28. Sierra College Blvd (Northbound)				28. Sierra College Blvd (Southbound)				Delmar Ave (Eastbound)				Delmar Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	54	1	0	0	44	0	0	0	0	0	0	5	0	0	0	104	
4:05 PM	0	65	4	0	0	33	0	0	0	0	0	0	2	0	0	0	104	
4:10 PM	0	71	2	1	0	37	1	0	0	0	1	0	1	0	1	0	115	
4:15 PM	3	68	6	0	0	45	0	0	0	0	0	0	4	0	0	0	126	
4:20 PM	0	76	2	0	0	36	0	0	0	0	1	0	1	0	0	0	116	
4:25 PM	0	74	1	0	1	35	0	0	0	0	1	0	0	1	0	0	113	
4:30 PM	0	61	3	0	0	34	0	0	0	0	0	0	3	0	0	0	101	
4:35 PM	0	51	5	0	0	40	1	0	1	0	0	0	3	0	0	0	101	
4:40 PM	0	65	3	0	0	38	0	0	0	0	0	0	0	0	0	0	106	
4:45 PM	1	63	7	0	0	30	0	0	0	0	0	0	1	0	0	0	102	
4:50 PM	1	60	6	0	0	42	1	0	0	0	0	0	1	0	0	0	111	
4:55 PM	1	70	8	0	0	27	0	0	1	0	0	0	3	0	0	0	110	1309
5:00 PM	2	56	5	0	0	29	0	0	0	0	0	0	3	0	1	0	96	1301
5:05 PM	1	53	3	0	1	38	0	0	0	1	1	0	1	0	0	0	99	1296
5:10 PM	1	71	7	0	0	40	0	0	1	0	1	0	5	0	1	0	127	1308
5:15 PM	0	82	7	0	0	37	0	0	0	0	0	0	2	0	1	0	129	1311
5:20 PM	0	76	5	0	1	28	0	0	0	0	0	0	2	0	0	0	112	1307
5:25 PM	2	81	9	0	0	28	0	0	0	0	0	0	0	0	1	0	121	1315
5:30 PM	0	86	7	0	0	37	0	0	0	0	0	0	4	0	0	0	134	1348
5:35 PM	0	67	4	0	0	35	0	0	0	0	0	0	4	0	1	0	111	1358
5:40 PM	0	52	4	0	0	35	0	0	0	1	0	0	1	0	0	0	93	1345
5:45 PM	1	61	4	0	0	44	0	0	0	0	1	0	5	1	0	0	117	1360
5:50 PM	0	47	8	0	0	36	1	0	0	0	0	0	2	0	1	0	95	1344
5:55 PM	0	42	6	0	0	29	0	0	0	0	0	0	3	0	0	0	80	1314

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	916	76	0	4	420	0	0	4	0	4	0	36	0	8	0	1472
Heavy Trucks	0	12	0		0	8	0		0	0	0		0	0	0		20
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

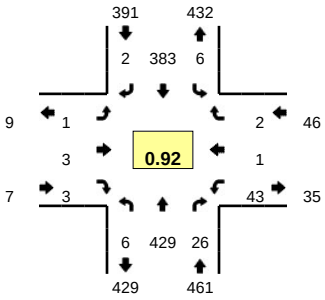
Type of peak hour being reported: Intersection Peak

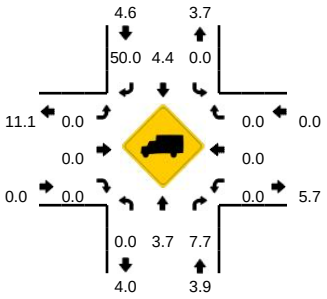
Method for determining peak hour: Total Entering Volume

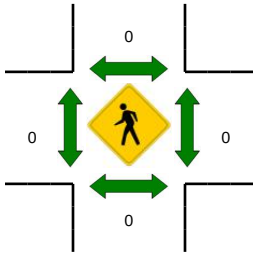
LOCATION: 28. Sierra College Blvd -- Delmar Ave
CITY/STATE: Loomis, CA

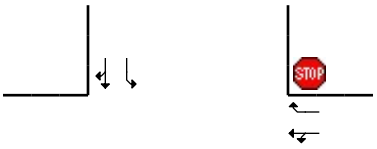
QC JOB #: 14812809
DATE: Sat, Oct 13 2018

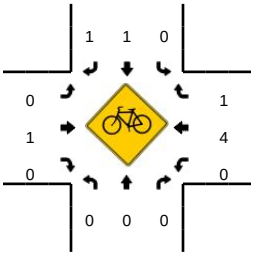
Peak-Hour: 12:00 PM -- 1:00 PM
Peak 15-Min: 12:30 PM -- 12:45 PM

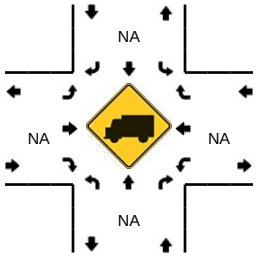


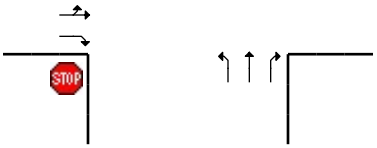


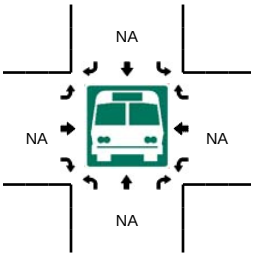












5-Min Count Period Beginning At	28. Sierra College Blvd (Northbound)				28. Sierra College Blvd (Southbound)				Delmar Ave (Eastbound)				Delmar Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	15	3	0	0	17	0	0	0	0	0	0	0	1	0	0	36	
11:05 AM	0	24	2	0	0	36	0	0	0	0	0	0	5	0	1	0	68	
11:10 AM	0	26	4	0	0	28	0	0	0	0	1	0	3	1	0	0	63	
11:15 AM	0	24	2	0	0	31	0	0	1	0	0	0	1	0	0	0	59	
11:20 AM	0	28	0	0	0	29	0	0	0	0	0	0	2	1	0	0	60	
11:25 AM	0	28	7	0	0	32	0	0	0	0	0	0	2	0	1	0	70	
11:30 AM	0	21	2	0	0	27	1	0	0	0	1	0	3	0	1	0	56	
11:35 AM	0	37	2	0	0	30	0	0	0	0	0	0	1	1	1	0	72	
11:40 AM	0	25	5	0	0	36	0	0	1	0	0	0	5	0	0	0	72	
11:45 AM	0	37	2	0	0	35	0	0	0	1	0	0	1	0	0	0	76	
11:50 AM	0	32	3	0	0	27	0	0	0	0	0	0	4	0	1	0	67	
11:55 AM	0	32	4	0	0	19	0	0	0	1	0	0	4	0	1	0	61	760
12:00 PM	1	31	3	0	0	34	0	0	0	0	0	0	2	0	0	0	71	795
12:05 PM	0	38	0	0	0	31	0	0	0	0	0	0	4	0	0	0	73	800
12:10 PM	0	33	4	0	0	38	0	0	0	1	3	0	1	0	0	0	80	817
12:15 PM	0	41	3	0	1	27	0	0	0	0	0	0	0	0	0	0	72	830
12:20 PM	2	31	1	0	0	31	1	0	0	0	0	0	5	0	0	0	71	841
12:25 PM	0	41	1	0	2	32	0	0	0	0	0	0	5	0	1	0	82	853
12:30 PM	1	42	0	0	0	37	0	0	0	0	0	0	4	0	0	0	84	881
12:35 PM	0	32	1	0	2	37	0	0	0	0	0	0	2	0	0	0	74	883
12:40 PM	1	44	4	0	1	30	0	0	0	0	0	0	7	0	0	0	87	898
12:45 PM	0	37	2	0	0	28	0	0	0	1	0	0	6	0	0	0	74	896
12:50 PM	0	24	4	0	0	30	0	0	1	1	0	0	2	1	1	0	64	893
12:55 PM	1	35	3	0	0	28	1	0	0	0	0	0	5	0	0	0	73	905

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	472	20	0	12	416	0	0	0	0	0	0	52	0	0	0	980
Heavy Trucks	0	28	4		0	24	0		0	0	0		0	0	0		56
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	1		0	0	0		0	1	1		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

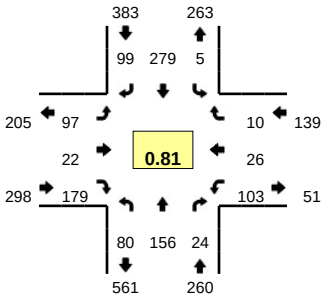
LOCATION: 29. Taylor Rd -- English Colony Way/Rock Springs Rd

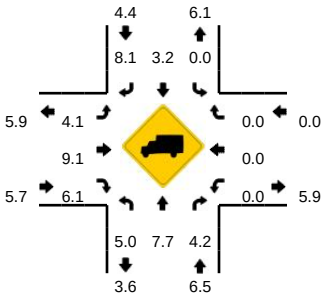
QC JOB #: 14812810

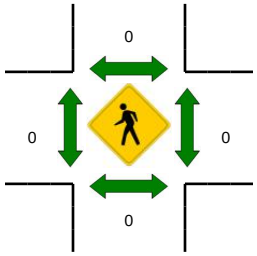
CITY/STATE: Loomis, CA

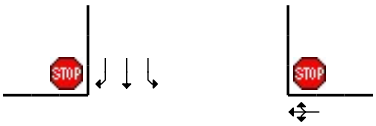
DATE: Wed, Oct 10 2018

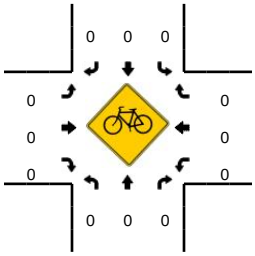
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

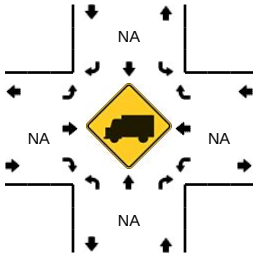


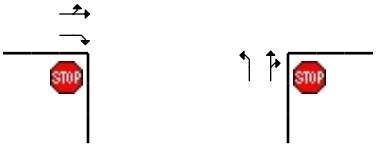


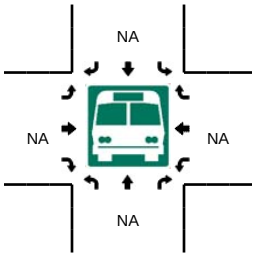












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				English Colony Way/Rock Springs Rd (Eastbound)				English Colony Way/Rock Springs Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	4	2	0	0	13	5	0	3	1	8	0	13	0	0	0	50	
7:05 AM	3	11	1	0	1	10	4	0	2	1	6	0	10	2	3	0	54	
7:10 AM	4	6	3	0	0	18	2	0	7	0	6	0	6	1	0	0	53	
7:15 AM	1	6	2	0	0	15	4	0	3	0	15	0	7	1	1	0	55	
7:20 AM	1	10	0	0	0	27	5	0	4	1	10	0	15	0	1	0	74	
7:25 AM	3	10	2	0	0	45	2	0	2	2	12	0	8	1	0	0	87	
7:30 AM	4	18	1	0	0	44	8	0	7	1	13	0	17	1	0	0	114	
7:35 AM	7	15	4	0	1	34	7	0	8	3	18	0	14	1	0	0	112	
7:40 AM	6	15	2	0	1	33	6	0	8	2	19	0	13	1	0	0	106	
7:45 AM	8	23	6	0	0	18	8	0	7	0	12	0	6	1	1	0	90	
7:50 AM	8	19	2	0	1	17	14	0	12	0	17	0	9	2	3	0	104	
7:55 AM	10	14	2	0	1	17	7	0	12	0	10	0	4	2	1	0	80	979
8:00 AM	12	6	0	0	0	11	14	0	13	2	15	0	4	4	2	0	83	1012
8:05 AM	9	8	2	0	0	10	13	0	6	3	16	0	4	6	1	0	78	1036
8:10 AM	6	7	2	0	1	14	9	0	9	4	21	0	4	6	1	0	84	1067
8:15 AM	6	11	1	0	0	9	6	0	9	4	16	0	5	1	0	0	68	1080
8:20 AM	3	6	1	0	1	13	4	0	17	4	10	0	8	0	0	0	67	1073
8:25 AM	2	8	2	0	0	9	6	0	4	1	6	0	4	2	0	0	44	1030
8:30 AM	4	4	4	0	0	8	5	0	2	1	10	0	4	3	0	0	45	961
8:35 AM	5	4	1	0	1	10	7	0	4	1	12	0	3	1	2	0	51	900
8:40 AM	4	7	1	0	0	14	6	0	7	1	5	0	6	2	0	0	53	847
8:45 AM	4	8	2	0	0	11	2	0	4	0	10	0	6	1	2	0	50	807
8:50 AM	3	5	0	0	1	9	4	0	4	0	7	0	4	1	0	0	38	741
8:55 AM	6	6	2	0	1	8	2	0	6	0	6	0	4	0	0	0	41	702

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	68	192	28	0	8	444	84	0	92	24	200	0	176	12	0	0	1328
Heavy Trucks	4	12	0		0	12	4		4	4	4		0	0	0		44
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

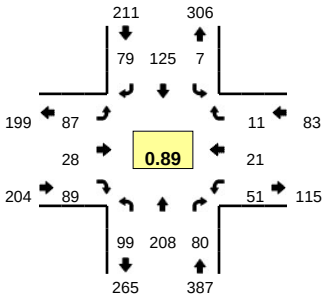
Comments:

Report generated on 10/25/2018 11:00 AM

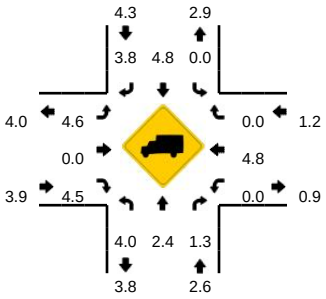
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

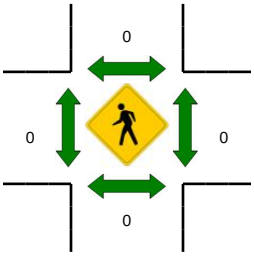
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

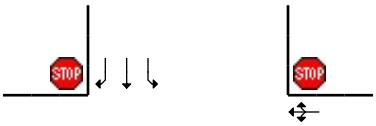
LOCATION: 29. Taylor Rd -- English Colony Way/Rock Springs Rd | **QC JOB #:** 14812811
CITY/STATE: Loomis, CA | **DATE:** Wed, Oct 10 2018

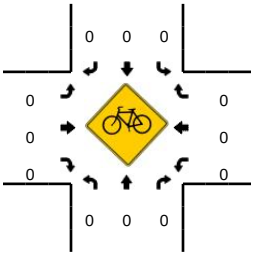


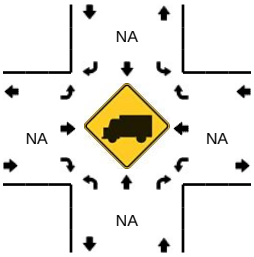
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 5:15 PM -- 5:30 PM

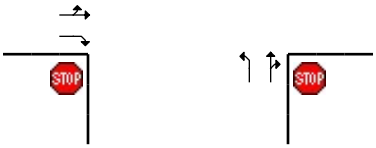


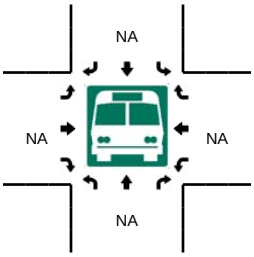












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				English Colony Way/Rock Springs Rd (Eastbound)				English Colony Way/Rock Springs Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	12	19	3	0	1	6	6	0	9	3	6	0	2	2	1	0	70	
4:05 PM	8	14	9	0	0	6	3	0	10	3	6	0	2	1	0	0	62	
4:10 PM	6	20	8	0	2	12	9	0	10	0	10	0	5	3	1	0	86	
4:15 PM	5	16	11	0	0	10	5	0	8	5	9	0	2	0	0	0	71	
4:20 PM	8	11	3	0	1	7	7	0	3	3	6	0	1	1	0	0	51	
4:25 PM	10	22	2	0	1	9	5	0	5	1	9	0	2	1	2	0	69	
4:30 PM	15	17	5	0	0	6	6	0	7	2	5	0	2	1	3	0	69	
4:35 PM	2	19	3	0	0	11	9	0	6	2	8	0	4	0	1	0	65	
4:40 PM	13	15	8	0	0	10	9	0	11	2	10	0	2	3	1	0	84	
4:45 PM	8	18	9	0	0	15	10	0	7	2	6	0	2	1	0	0	78	
4:50 PM	6	16	8	0	1	10	6	0	9	0	5	0	8	1	1	0	71	
4:55 PM	8	10	4	0	0	9	9	0	7	3	5	0	6	1	3	0	65	841
5:00 PM	6	12	4	0	0	11	5	0	5	0	12	0	4	3	1	0	63	834
5:05 PM	9	19	4	0	2	10	1	0	11	4	9	0	3	2	1	0	75	847
5:10 PM	6	16	3	0	0	11	7	0	3	3	6	0	8	3	0	0	66	827
5:15 PM	10	16	12	0	0	18	7	0	7	2	8	0	4	4	0	0	88	844
5:20 PM	11	25	10	0	2	8	4	0	5	1	7	0	4	1	0	0	78	871
5:25 PM	5	25	10	0	2	6	6	0	9	7	8	0	4	1	0	0	83	885
5:30 PM	9	16	10	0	0	4	3	0	7	3	9	0	3	1	1	0	66	882
5:35 PM	6	20	6	0	1	11	1	0	5	2	3	0	2	0	0	0	57	874
5:40 PM	7	18	6	0	0	9	8	0	10	4	9	0	2	3	0	0	76	866
5:45 PM	6	21	6	0	0	4	2	0	6	3	6	0	4	5	1	0	64	852
5:50 PM	10	17	6	0	0	10	6	0	8	0	7	0	4	1	0	0	69	850
5:55 PM	8	17	6	0	0	11	5	0	2	0	7	0	2	1	1	0	60	845

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	104	264	128	0	16	128	68	0	84	40	92	0	48	24	0	0	996
Heavy Trucks	4	0	0		0	4	0		4	0	4		0	4	0		20
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

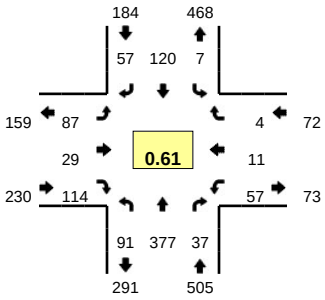
Comments:

Report generated on 10/25/2018 11:00 AM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

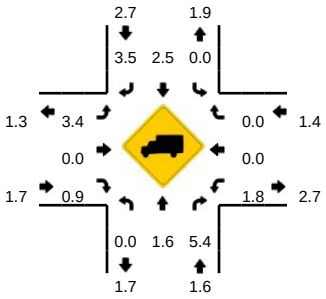
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

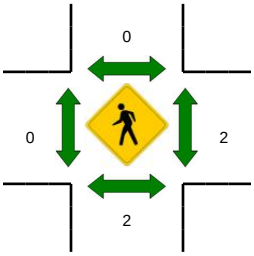
LOCATION: 29. Taylor Rd -- English Colony Way/Rock Springs Rd | **QC JOB #:** 14812812

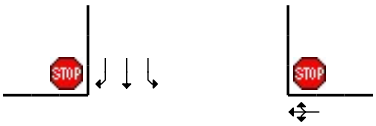
CITY/STATE: Loomis, CA | **DATE:** Sat, Oct 13 2018

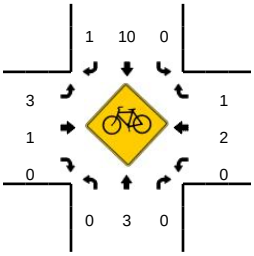


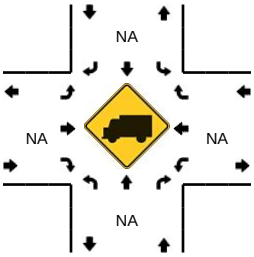
Peak-Hour: 11:00 AM -- 12:00 PM
Peak 15-Min: 11:20 AM -- 11:35 AM

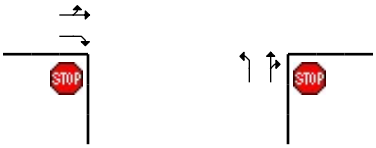


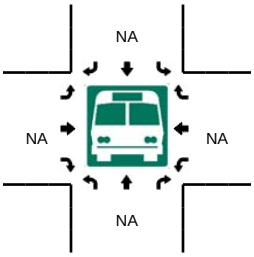












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				English Colony Way/Rock Springs Rd (Eastbound)				English Colony Way/Rock Springs Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	8	15	6	0	0	8	4	0	9	5	14	0	5	1	0	0	75	
11:05 AM	9	3	4	0	1	9	5	0	10	2	9	0	7	1	1	0	61	
11:10 AM	6	18	2	0	1	9	2	0	17	5	17	0	3	0	0	0	80	
11:15 AM	3	29	2	0	2	9	3	0	7	4	8	0	2	0	0	0	69	
11:20 AM	4	92	3	0	2	9	11	0	13	3	11	0	7	1	0	0	156	
11:25 AM	10	131	1	0	0	13	2	0	4	1	11	0	4	1	1	0	179	
11:30 AM	8	26	1	0	0	8	6	0	8	1	8	0	5	2	0	0	73	
11:35 AM	8	14	3	0	1	14	5	0	6	4	9	0	7	1	1	0	73	
11:40 AM	12	16	3	0	0	13	7	0	4	0	7	0	6	0	0	0	68	
11:45 AM	7	12	2	0	0	9	3	0	4	1	5	0	2	3	1	0	49	
11:50 AM	9	12	5	0	0	14	4	0	2	2	7	0	4	0	0	0	59	
11:55 AM	7	9	5	0	0	5	5	0	3	1	8	0	5	1	0	0	49	991
12:00 PM	12	11	5	0	2	9	6	0	2	0	9	0	3	0	0	0	59	975
12:05 PM	5	10	3	0	0	11	4	0	3	2	6	0	2	2	1	0	49	963
12:10 PM	10	15	5	0	0	9	5	0	6	0	7	0	1	3	0	0	61	944
12:15 PM	10	12	5	0	1	7	5	0	4	2	7	0	4	0	0	0	57	932
12:20 PM	5	11	2	0	0	9	11	0	7	0	3	0	3	0	0	0	51	827
12:25 PM	2	7	4	0	5	7	0	0	9	1	7	0	3	1	0	0	46	694
12:30 PM	3	14	1	0	2	20	6	0	6	0	10	0	3	2	2	0	69	690
12:35 PM	9	8	3	0	0	12	4	0	2	1	8	0	6	2	0	0	55	672
12:40 PM	4	5	6	0	0	8	5	0	4	0	10	0	3	2	2	0	49	653
12:45 PM	7	13	2	0	0	8	8	0	0	0	6	0	2	0	0	0	46	650
12:50 PM	7	24	5	0	0	16	8	0	3	2	7	0	0	2	1	0	75	666
12:55 PM	9	9	4	0	0	5	7	0	4	1	8	0	4	0	1	0	52	669

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	88	996	20	0	8	120	76	0	100	20	120	0	64	16	4	0	1632
Heavy Trucks	0	8	4		0	4	0		4	0	0		0	0	0		20
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	1		0	1	0		0	2	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

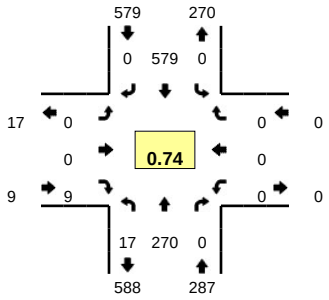
Type of peak hour being reported: Intersection Peak

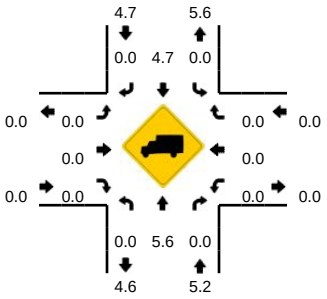
Method for determining peak hour: Total Entering Volume

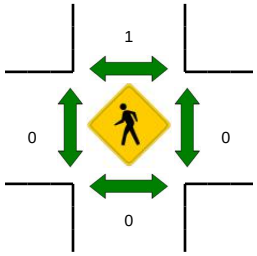
LOCATION: 30. Taylor Rd -- Penryn Rd (North)
CITY/STATE: Penryn, CA

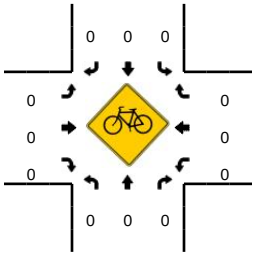
QC JOB #: 14812848
DATE: Wed, Oct 10 2018

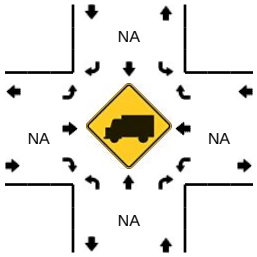
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

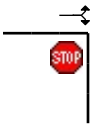


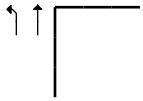


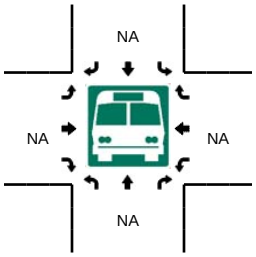












5-Min Count Period Beginning At	30. Taylor Rd (Northbound)				30. Taylor Rd (Southbound)				Penryn Rd (North) (Eastbound)				Penryn Rd (North) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	7	0	0	0	39	0	0	0	0	0	0	0	0	0	0	46	
7:05 AM	1	15	0	0	0	23	0	0	0	0	0	0	0	0	0	0	39	
7:10 AM	2	12	0	0	0	30	0	0	0	0	1	0	0	0	0	0	45	
7:15 AM	1	12	0	0	0	38	0	0	0	0	0	0	0	0	0	0	51	
7:20 AM	0	13	0	0	0	51	0	0	0	0	0	0	0	0	0	0	64	
7:25 AM	0	19	0	0	0	64	0	0	0	0	3	0	0	0	0	0	86	
7:30 AM	7	21	0	0	0	82	0	0	0	0	0	0	0	0	0	0	110	
7:35 AM	1	26	0	0	0	57	0	0	0	0	3	0	0	0	0	0	87	
7:40 AM	1	26	0	0	0	73	0	0	0	0	0	0	0	0	0	0	100	
7:45 AM	3	39	0	0	0	45	0	0	0	0	1	0	0	0	0	0	88	
7:50 AM	2	26	0	0	0	39	0	0	0	0	2	0	0	0	0	0	69	
7:55 AM	3	29	0	0	0	30	0	0	0	0	0	0	0	0	0	0	62	847
8:00 AM	0	19	0	0	0	28	0	0	0	0	0	0	0	0	0	0	47	848
8:05 AM	0	17	0	0	0	36	0	0	0	0	0	0	0	0	0	0	53	862
8:10 AM	0	17	0	0	0	36	0	0	0	0	0	0	0	0	0	0	53	870
8:15 AM	0	18	0	0	0	38	0	0	0	0	0	0	0	0	0	0	56	875
8:20 AM	0	8	0	0	0	26	0	0	0	0	0	0	0	0	0	0	34	845
8:25 AM	1	12	0	0	0	25	0	0	0	0	0	0	0	0	0	0	38	797
8:30 AM	1	13	0	0	0	21	0	0	0	0	0	0	0	0	0	0	35	722
8:35 AM	2	12	0	0	0	26	0	0	0	0	0	0	0	0	0	0	40	675
8:40 AM	1	13	0	0	0	23	0	0	0	0	1	0	0	0	0	0	38	613
8:45 AM	2	14	0	0	0	34	0	0	0	0	1	0	0	0	0	0	51	576
8:50 AM	0	8	0	0	0	23	0	0	0	0	0	0	0	0	0	0	31	538
8:55 AM	1	13	0	0	0	18	0	0	0	0	0	0	0	0	0	0	32	508

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	292	0	0	0	848	0	0	0	0	12	0	0	0	0	0	1188
Heavy Trucks	0	12	0		0	20	0		0	0	0		0	0	0		32
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/15/2018 7:08 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

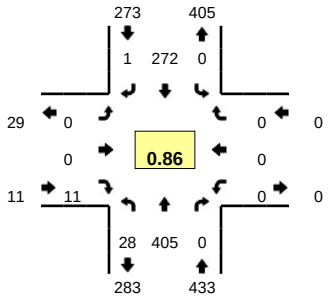
Type of peak hour being reported: Intersection Peak

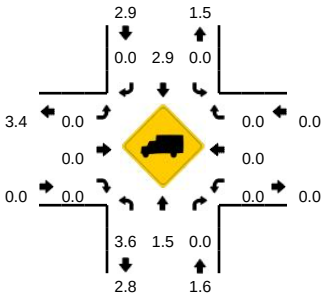
Method for determining peak hour: Total Entering Volume

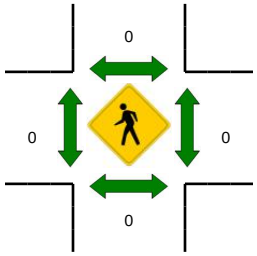
LOCATION: 30. Taylor Rd -- Penryn Rd (North)
CITY/STATE: Penryn, CA

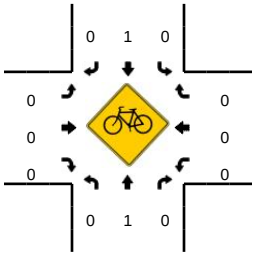
QC JOB #: 14812849
DATE: Wed, Oct 10 2018

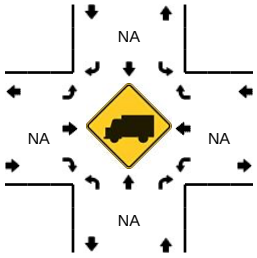
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 5:15 PM -- 5:30 PM

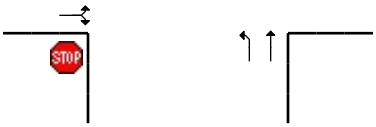


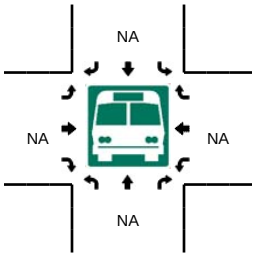












5-Min Count Period Beginning At	30. Taylor Rd (Northbound)				30. Taylor Rd (Southbound)				Penryn Rd (North) (Eastbound)				Penryn Rd (North) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	30	0	0	0	16	0	0	0	0	0	0	0	0	0	0	46	
4:05 PM	2	32	0	0	0	18	0	0	0	0	0	0	0	0	0	0	52	
4:10 PM	0	38	0	0	0	26	0	0	0	0	0	0	0	0	0	0	64	
4:15 PM	2	29	0	0	0	23	0	0	0	0	0	0	0	0	0	0	54	
4:20 PM	2	25	0	0	0	12	0	0	0	0	1	0	0	0	0	0	40	
4:25 PM	3	39	0	0	0	22	0	0	0	0	2	0	0	0	0	0	66	
4:30 PM	9	33	0	0	0	13	0	0	0	0	1	0	0	0	0	0	56	
4:35 PM	1	26	0	0	0	18	0	0	0	0	1	0	0	0	0	0	46	
4:40 PM	2	36	0	0	0	29	0	0	0	0	0	0	0	0	0	0	67	
4:45 PM	0	38	0	0	0	14	0	0	0	0	0	0	0	0	0	0	52	
4:50 PM	2	31	0	0	0	26	0	0	0	0	0	0	0	0	0	0	59	
4:55 PM	5	21	0	0	0	26	0	0	0	0	0	0	0	0	0	0	52	654
5:00 PM	1	26	0	0	0	22	0	0	0	0	1	0	0	0	0	0	50	658
5:05 PM	0	35	0	0	0	28	1	0	0	0	2	0	0	0	0	0	66	672
5:10 PM	6	27	0	0	0	20	0	0	0	0	1	0	0	0	0	0	54	662
5:15 PM	4	39	0	0	0	25	0	0	0	0	0	0	0	0	0	0	68	676
5:20 PM	2	48	0	0	0	26	0	0	0	0	4	0	0	0	0	0	80	716
5:25 PM	2	38	0	0	0	20	0	0	0	0	0	0	0	0	0	0	60	710
5:30 PM	2	30	0	0	0	16	0	0	0	0	3	0	0	0	0	0	51	705
5:35 PM	2	36	0	0	0	20	0	0	0	0	0	0	0	0	0	0	58	717
5:40 PM	4	30	0	0	0	20	0	0	0	0	0	0	0	0	0	0	54	704
5:45 PM	1	39	0	0	0	15	0	0	0	0	1	0	0	0	0	0	56	708
5:50 PM	1	25	0	0	0	23	0	0	0	0	2	0	0	0	0	0	51	700
5:55 PM	1	38	0	0	0	14	0	0	0	0	1	0	0	0	0	0	54	702

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	500	0	0	0	284	0	0	0	0	16	0	0	0	0	0	832
Heavy Trucks	0	4	0		0	4	0		0	0	0		0	0	0		8
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/15/2018 7:08 AM

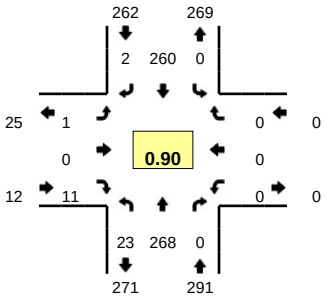
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

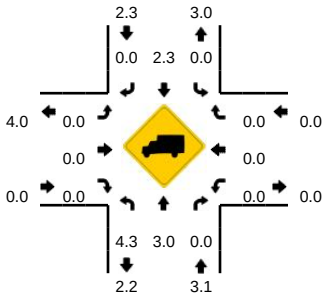
Method for determining peak hour: Total Entering Volume

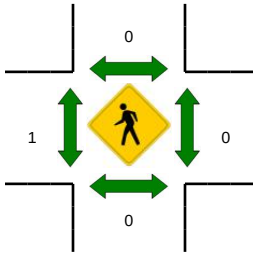
LOCATION: 30. Taylor Rd -- Penryn Rd (North)
CITY/STATE: Penryn, CA

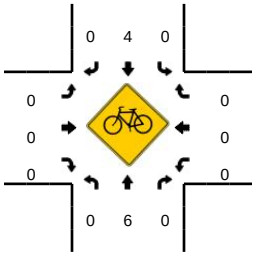
QC JOB #: 14812850
DATE: Sat, Oct 27 2018

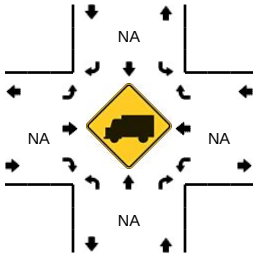


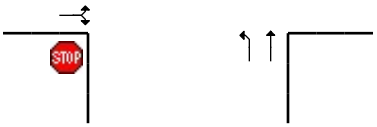
Peak-Hour: 11:25 AM -- 12:25 PM
Peak 15-Min: 12:10 PM -- 12:25 PM

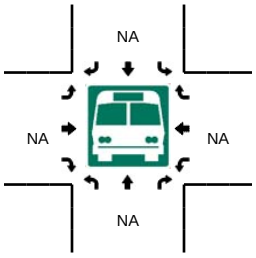












5-Min Count Period Beginning At	30. Taylor Rd (Northbound)				30. Taylor Rd (Southbound)				Penryn Rd (North) (Eastbound)				Penryn Rd (North) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	2	25	0	0	0	12	0	0	0	0	0	0	0	0	0	0	39	
11:05 AM	1	23	0	0	0	22	0	0	0	0	0	0	0	0	0	0	46	
11:10 AM	1	19	0	0	0	28	0	0	0	0	1	0	0	0	0	0	49	
11:15 AM	1	15	0	0	0	14	0	0	0	0	2	0	0	0	0	0	32	
11:20 AM	3	23	0	0	0	20	0	0	0	0	0	0	0	0	0	0	46	
11:25 AM	2	28	0	0	0	22	0	0	0	0	2	0	0	0	0	0	54	
11:30 AM	1	20	0	0	0	23	0	0	0	0	0	0	0	0	0	0	44	
11:35 AM	1	15	0	0	0	22	0	0	0	0	1	0	0	0	0	0	39	
11:40 AM	1	18	0	0	0	22	1	0	1	0	0	0	0	0	0	0	43	
11:45 AM	3	22	0	0	0	29	0	0	0	0	1	0	0	0	0	0	55	
11:50 AM	1	23	0	0	0	16	0	0	0	0	0	0	0	0	0	0	40	
11:55 AM	7	26	0	0	0	11	0	0	0	0	0	0	0	0	0	0	44	531
12:00 PM	1	26	0	0	0	22	0	0	0	0	3	0	0	0	0	0	52	544
12:05 PM	2	19	0	0	0	13	0	0	0	0	3	0	0	0	0	0	37	535
12:10 PM	1	26	0	0	0	17	0	0	0	0	0	0	0	0	0	0	44	530
12:15 PM	0	22	0	0	0	36	0	0	0	0	0	0	0	0	0	0	58	556
12:20 PM	3	23	0	0	0	27	1	0	0	0	1	0	0	0	0	0	55	565
12:25 PM	0	24	0	0	0	14	1	0	0	0	1	0	0	0	0	0	40	551
12:30 PM	1	18	0	0	0	21	0	0	0	0	4	0	0	0	0	0	44	551
12:35 PM	0	23	0	0	0	21	0	0	0	0	0	0	0	0	0	0	44	556
12:40 PM	2	20	0	0	0	23	0	0	0	0	0	0	0	0	0	0	45	558
12:45 PM	0	22	0	0	0	18	0	0	0	0	0	0	0	0	0	0	40	543
12:50 PM	4	27	0	0	0	21	0	1	0	0	0	0	0	0	0	0	53	556
12:55 PM	2	27	0	0	0	22	0	0	0	0	0	0	0	0	0	0	51	563

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	284	0	0	0	320	4	0	0	0	4	0	0	0	0	0	628
Heavy Trucks	4	8	0		0	4	0		0	0	0		0	0	0		16
Pedestrians		0				0				4				0			4
Bicycles	0	2	0		0	2	0		0	0	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/15/2018 7:08 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

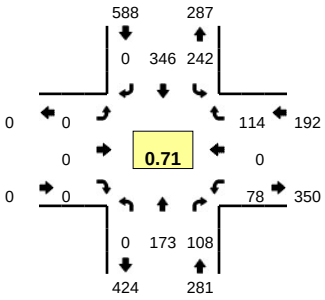
Type of peak hour being reported: Intersection Peak

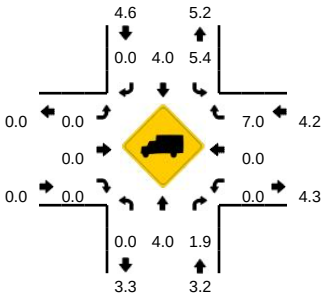
Method for determining peak hour: Total Entering Volume

LOCATION: 30. Taylor Rd -- Penryn Rd (South)
CITY/STATE: Penryn, CA

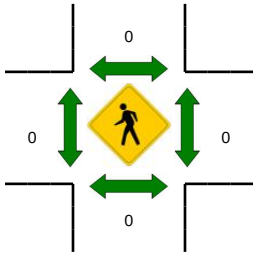
QC JOB #: 14812851
DATE: Wed, Oct 10 2018

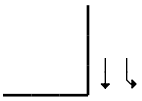
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

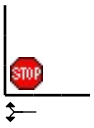


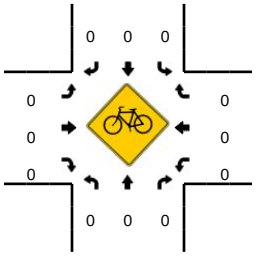


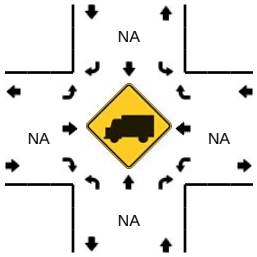
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

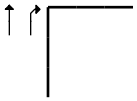


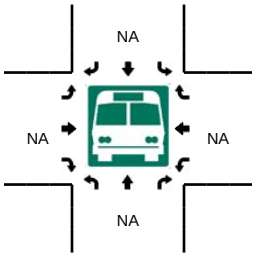












5-Min Count Period Beginning At	30. Taylor Rd (Northbound)				30. Taylor Rd (Southbound)				Penryn Rd (South) (Eastbound)				Penryn Rd (South) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	4	3	0	16	23	0	0	0	0	0	0	2	0	3	0	51	
7:05 AM	0	11	5	0	14	9	0	0	0	0	0	0	5	0	5	0	49	
7:10 AM	0	10	5	0	13	18	0	0	0	0	0	0	6	0	4	0	56	
7:15 AM	0	9	1	0	17	21	0	0	0	0	0	0	5	0	4	0	57	
7:20 AM	0	8	3	0	20	31	0	0	0	0	0	0	7	0	5	0	74	
7:25 AM	0	14	16	0	12	55	0	0	0	0	0	0	10	0	5	0	112	
7:30 AM	0	14	13	0	18	64	0	0	0	0	0	0	13	0	14	0	136	
7:35 AM	0	22	21	0	19	41	0	0	0	0	0	0	6	0	5	0	114	
7:40 AM	0	19	14	0	28	45	0	0	0	0	0	0	12	0	8	0	126	
7:45 AM	0	27	16	0	21	25	0	0	0	0	0	0	11	0	15	0	115	
7:50 AM	0	19	16	0	25	16	0	0	0	0	0	0	7	0	9	0	92	
7:55 AM	0	14	5	0	20	10	0	0	0	0	0	0	0	0	18	0	67	1049
8:00 AM	0	8	1	0	14	14	0	0	0	0	0	0	2	0	11	0	50	1048
8:05 AM	0	9	1	0	19	17	0	0	0	0	0	0	3	0	8	0	57	1056
8:10 AM	0	8	2	0	26	10	0	0	0	0	0	0	2	0	9	0	57	1057
8:15 AM	0	11	0	0	20	18	0	0	0	0	0	0	5	0	7	0	61	1061
8:20 AM	0	5	1	0	11	15	0	0	0	0	0	0	4	0	3	0	39	1026
8:25 AM	0	8	2	0	14	11	0	0	0	0	0	0	5	0	5	0	45	959
8:30 AM	0	5	2	0	12	9	0	0	0	0	0	0	2	0	9	0	39	862
8:35 AM	0	5	3	0	14	12	0	0	0	0	0	0	2	0	9	0	45	793
8:40 AM	0	7	2	0	14	10	0	0	0	0	0	0	1	0	7	0	41	708
8:45 AM	0	8	0	0	21	14	0	0	0	0	0	0	2	0	8	0	53	646
8:50 AM	0	6	2	0	14	9	0	0	0	0	0	0	0	0	2	0	33	587
8:55 AM	0	8	1	0	9	9	0	0	0	0	0	0	1	0	6	0	34	554

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	220	192	0	260	600	0	0	0	0	0	0	124	0	108	0	1504
Heavy Trucks	0	4	4		8	12	0		0	0	0		0	0	8		36
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/15/2018 7:08 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 30. Taylor Rd -- Penryn Rd (South)

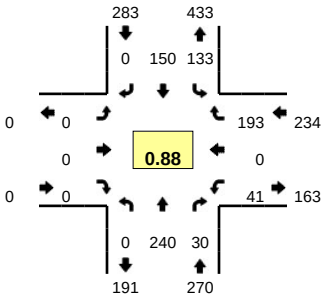
CITY/STATE: Penryn, CA

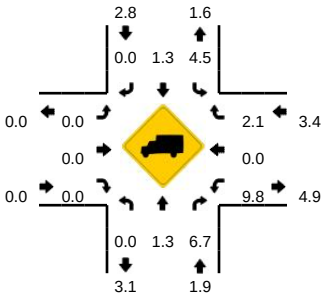
QC JOB #: 14812852

DATE: Wed, Oct 10 2018

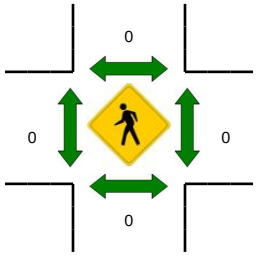
Peak-Hour: 4:40 PM -- 5:40 PM

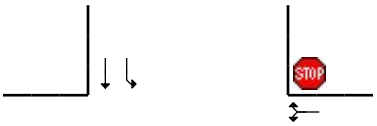
Peak 15-Min: 5:15 PM -- 5:30 PM

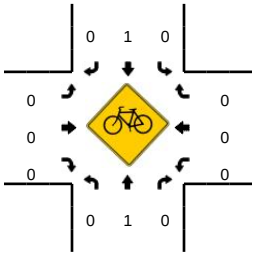


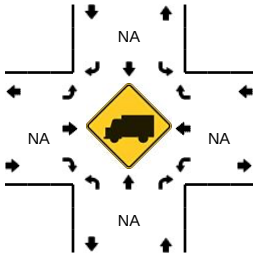


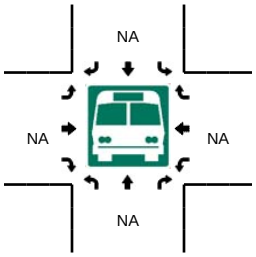
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES











5-Min Count Period Beginning At	30. Taylor Rd (Northbound)				30. Taylor Rd (Southbound)				Penryn Rd (South) (Eastbound)				Penryn Rd (South) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	19	3	0	6	10	0	0	0	0	0	0	1	0	11	0	50	
4:05 PM	0	9	0	0	7	11	0	0	0	0	0	0	1	0	25	0	53	
4:10 PM	0	19	0	0	13	13	0	0	0	0	0	0	2	0	19	0	66	
4:15 PM	0	15	4	0	15	8	0	0	0	0	0	0	4	0	16	0	62	
4:20 PM	0	10	3	0	7	6	0	0	0	0	0	0	2	0	17	0	45	
4:25 PM	0	24	3	0	12	12	0	0	0	0	0	0	2	0	18	0	71	
4:30 PM	0	14	0	0	7	7	0	0	0	0	0	0	5	0	28	1	62	
4:35 PM	0	21	1	0	10	9	0	0	0	0	0	0	1	0	6	0	48	
4:40 PM	0	20	2	0	16	13	0	0	0	0	0	0	4	0	18	0	73	
4:45 PM	0	21	4	0	5	9	0	0	0	0	0	0	3	0	17	0	59	
4:50 PM	0	20	1	0	12	14	0	0	0	0	0	0	5	0	13	0	65	
4:55 PM	0	7	6	0	14	12	0	0	0	0	0	0	1	0	19	0	59	713
5:00 PM	0	14	2	0	9	14	0	0	0	0	0	0	4	0	13	0	56	719
5:05 PM	0	22	0	0	15	15	0	0	0	0	0	0	2	0	13	0	67	733
5:10 PM	0	19	1	0	8	13	0	0	0	0	0	0	4	0	14	0	59	726
5:15 PM	0	22	2	0	8	17	0	0	0	0	0	0	4	0	21	0	74	738
5:20 PM	0	31	1	0	20	10	0	0	0	0	0	0	4	0	19	0	85	778
5:25 PM	0	19	2	0	9	11	0	0	0	0	0	0	3	0	21	0	65	772
5:30 PM	0	21	4	0	9	10	0	0	0	0	0	0	4	0	11	0	59	769
5:35 PM	0	24	5	0	8	12	0	0	0	0	0	0	3	0	14	0	66	787
5:40 PM	0	19	5	0	11	9	0	0	0	0	0	0	1	0	15	0	60	774
5:45 PM	0	18	4	0	8	8	0	0	0	0	0	0	1	0	22	0	61	776
5:50 PM	0	19	3	0	14	11	0	0	0	0	0	0	2	0	7	0	56	767
5:55 PM	0	21	4	0	5	10	0	0	0	0	0	0	1	0	18	0	59	767

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	288	20	0	148	152	0	0	0	0	0	0	44	0	244	0	896
Heavy Trucks	0	4	0		4	0	0		0	0	0		4	0	0		12
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/15/2018 7:08 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 30. Taylor Rd -- Penryn Rd (South)

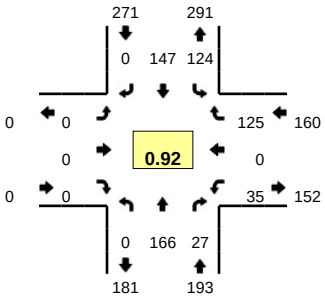
CITY/STATE: Penryn, CA

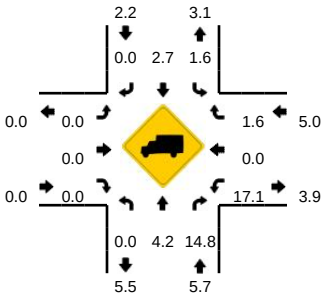
QC JOB #: 14812853

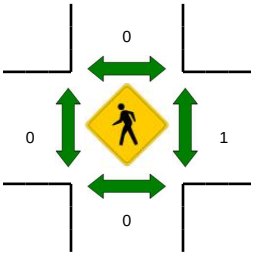
DATE: Sat, Oct 27 2018

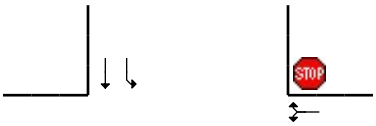
Peak-Hour: 11:25 AM -- 12:25 PM

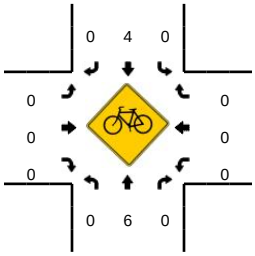
Peak 15-Min: 12:10 PM -- 12:25 PM

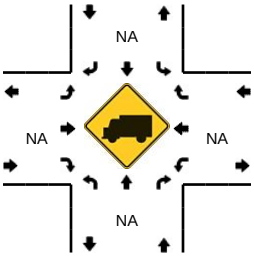


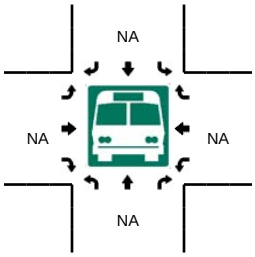












5-Min Count Period Beginning At	30. Taylor Rd (Northbound)				30. Taylor Rd (Southbound)				Penryn Rd (South) (Eastbound)				Penryn Rd (South) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	17	5	0	5	7	0	0	0	0	0	0	3	0	10	0	47	
11:05 AM	0	15	2	0	8	14	0	0	0	0	0	0	3	0	9	0	51	
11:10 AM	0	12	3	0	11	18	0	0	0	0	0	0	1	0	8	0	53	
11:15 AM	0	9	1	0	6	10	0	0	0	0	0	0	0	0	7	0	33	
11:20 AM	0	8	2	0	12	8	0	0	0	0	0	0	3	0	18	0	51	
11:25 AM	0	12	3	0	13	11	0	0	0	0	0	0	3	0	18	0	60	
11:30 AM	0	9	3	0	14	9	0	0	0	0	0	0	3	0	12	0	50	
11:35 AM	0	11	1	0	11	12	0	0	0	0	0	0	4	0	5	0	44	
11:40 AM	0	11	4	0	8	14	0	0	0	0	0	0	3	0	8	1	49	
11:45 AM	0	10	0	0	10	20	0	0	0	0	0	0	5	0	15	0	60	
11:50 AM	0	17	3	0	8	8	0	0	0	0	0	0	1	0	7	0	44	
11:55 AM	0	16	0	0	3	8	0	0	0	0	0	0	4	0	17	0	48	590
12:00 PM	0	15	2	0	12	13	0	0	0	0	0	0	1	0	12	0	55	598
12:05 PM	0	13	3	0	5	11	0	0	0	0	0	0	4	0	8	0	44	591
12:10 PM	0	18	4	0	6	11	0	0	0	0	0	0	1	0	9	0	49	587
12:15 PM	0	15	2	0	18	18	0	0	0	0	0	0	0	0	7	0	60	614
12:20 PM	0	19	2	0	16	12	0	0	0	0	0	0	5	0	7	0	61	624
12:25 PM	0	13	0	0	6	9	0	0	0	0	0	0	0	0	11	0	39	603
12:30 PM	0	10	2	0	15	10	0	0	0	0	0	0	2	0	9	0	48	601
12:35 PM	0	13	5	0	5	16	0	0	0	0	0	0	1	0	10	0	50	607
12:40 PM	0	16	2	0	11	12	0	0	0	0	0	0	1	0	6	0	48	606
12:45 PM	0	13	3	0	10	8	0	0	0	0	0	0	2	0	9	0	45	591
12:50 PM	0	9	1	0	10	11	0	0	0	0	0	0	9	0	22	0	62	609
12:55 PM	0	18	0	0	10	12	0	0	0	0	0	0	1	0	11	0	52	613

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	208	32	0	160	164	0	0	0	0	0	0	24	0	92	0	680
Heavy Trucks	0	8	0		0	4	0		0	0	0		12	0	4		28
Pedestrians		0				0				0				0			0
Bicycles	0	2	0		0	2	0		0	0	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/15/2018 7:08 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

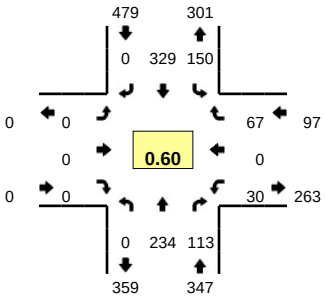
LOCATION: 29. Taylor Rd -- Del Oro High School North Lot

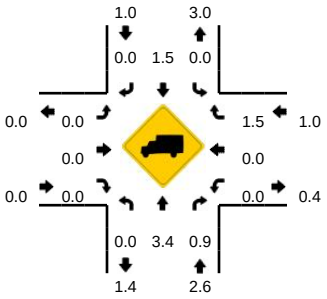
QC JOB #: 14812816

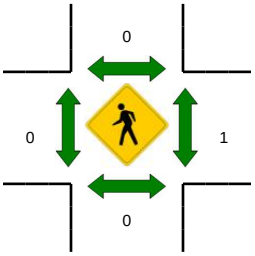
CITY/STATE: Loomis, CA

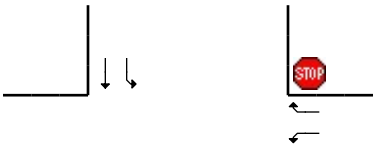
DATE: Wed, Oct 10 2018

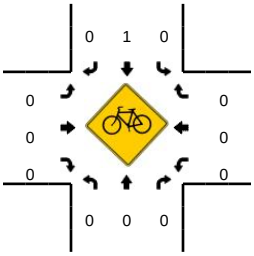
Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:25 AM -- 7:40 AM

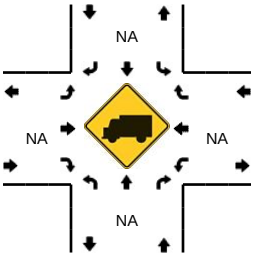


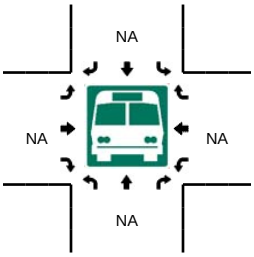












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Del Oro High School North Lot (Eastbound)				Del Oro High School North Lot (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	5	6	0	4	17	0	0	0	0	0	0	1	0	2	0	35	
7:05 AM	0	11	7	0	2	16	0	0	0	0	0	0	0	0	2	0	38	
7:10 AM	0	17	2	0	6	15	0	0	0	0	0	0	0	0	0	0	40	
7:15 AM	0	10	3	0	4	22	0	0	0	0	0	0	1	0	0	0	40	
7:20 AM	0	15	23	0	6	24	0	0	0	0	0	0	1	0	1	0	70	
7:25 AM	0	20	22	0	21	39	0	0	0	0	0	0	4	0	10	0	116	
7:30 AM	0	22	19	0	34	37	0	0	0	0	0	0	6	0	10	0	128	
7:35 AM	0	29	15	0	32	41	0	0	0	0	0	0	4	0	17	0	138	
7:40 AM	0	27	9	0	16	48	0	0	0	0	0	0	5	0	8	0	113	
7:45 AM	0	34	5	0	21	22	0	0	0	0	0	0	4	0	15	0	101	
7:50 AM	0	31	2	0	3	33	0	0	0	0	0	0	4	0	2	0	75	
7:55 AM	0	13	0	0	1	15	0	0	0	0	0	0	0	0	0	0	29	923
8:00 AM	0	7	0	0	0	14	0	0	0	0	0	0	2	0	0	0	23	911
8:05 AM	0	16	0	0	2	19	0	0	0	0	0	0	1	0	0	0	38	911
8:10 AM	0	12	0	0	1	18	0	0	0	0	0	0	0	0	0	0	31	902
8:15 AM	0	14	0	0	1	16	0	0	0	0	0	0	1	0	0	0	32	894
8:20 AM	0	7	0	0	0	18	0	0	0	0	0	0	2	0	0	0	27	851
8:25 AM	0	11	0	0	0	13	0	0	0	0	0	0	0	0	0	0	24	759
8:30 AM	0	11	1	0	0	12	0	0	0	0	0	0	0	0	0	0	24	655
8:35 AM	0	9	1	0	0	12	0	0	0	0	0	0	1	0	0	0	23	540
8:40 AM	0	9	1	0	0	16	0	0	0	0	0	0	0	0	0	0	26	453
8:45 AM	0	8	3	0	0	9	0	0	0	0	0	0	1	0	0	0	21	373
8:50 AM	0	6	0	0	0	17	0	0	0	0	0	0	0	0	0	0	23	321
8:55 AM	0	13	1	0	1	9	0	0	0	0	0	0	0	0	0	0	24	316

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	284	224	0	348	468	0	0	0	0	0	0	56	0	148	0	1528
Heavy Trucks	0	0	4		0	12	0		0	0	0		0	0	4		20
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

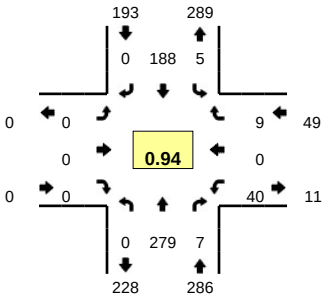
Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Del Oro High School North Lot

QC JOB #: 14812817

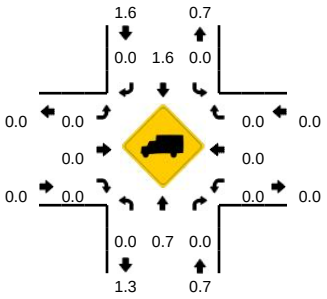
CITY/STATE: Loomis, CA

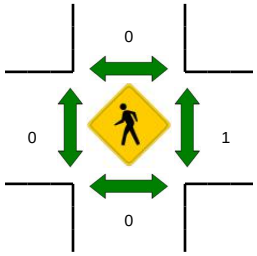
DATE: Wed, Oct 10 2018

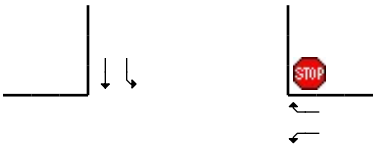


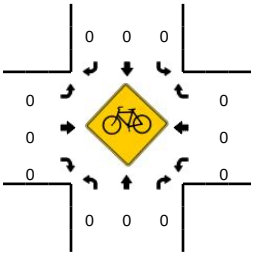
Peak-Hour: 5:00 PM -- 6:00 PM

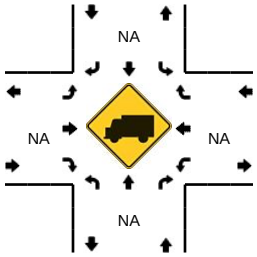
Peak 15-Min: 5:15 PM -- 5:30 PM

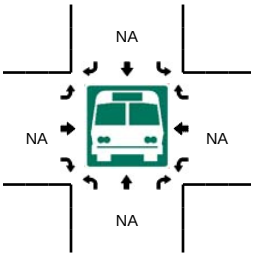












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Del Oro High School North Lot (Eastbound)				Del Oro High School North Lot (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	21	0	0	0	13	0	0	0	0	0	0	3	0	0	0	37	
4:05 PM	0	15	0	0	0	17	0	0	0	0	0	0	1	0	1	0	34	
4:10 PM	0	20	3	0	0	10	0	0	0	0	0	0	1	0	0	0	34	
4:15 PM	0	22	1	0	0	18	0	0	0	0	0	0	2	0	1	0	44	
4:20 PM	0	23	0	0	0	13	0	0	0	0	0	0	1	0	0	0	37	
4:25 PM	0	23	0	0	0	15	0	0	0	0	0	0	1	0	0	0	39	
4:30 PM	0	13	0	0	0	11	0	0	0	0	0	0	0	0	1	0	25	
4:35 PM	0	29	1	0	0	15	0	0	0	0	0	0	0	0	0	0	45	
4:40 PM	0	22	0	0	0	20	0	0	0	0	0	0	0	0	0	0	42	
4:45 PM	0	28	0	0	1	18	0	0	0	0	0	0	2	0	1	0	50	
4:50 PM	0	21	0	0	1	15	0	0	0	0	0	0	0	0	0	0	37	
4:55 PM	0	15	0	0	0	22	0	0	0	0	0	0	0	0	1	0	38	462
5:00 PM	0	13	0	0	0	17	0	0	0	0	0	0	0	0	0	0	30	455
5:05 PM	0	29	0	0	0	16	0	0	0	0	0	0	6	0	0	0	51	472
5:10 PM	0	17	0	0	1	14	0	0	0	0	0	0	2	0	0	0	34	472
5:15 PM	0	28	0	0	0	25	0	0	0	0	0	0	0	0	0	0	53	481
5:20 PM	0	28	1	0	0	20	0	0	0	0	0	0	1	0	0	0	50	494
5:25 PM	0	22	0	0	0	15	0	0	0	0	0	0	0	0	0	0	37	492
5:30 PM	0	25	0	0	0	15	0	0	0	0	0	0	3	0	0	0	43	510
5:35 PM	0	23	1	0	0	12	0	0	0	0	0	0	9	0	2	0	47	512
5:40 PM	0	22	2	0	0	13	0	0	0	0	0	0	7	0	3	0	47	517
5:45 PM	0	23	1	0	2	16	0	0	0	0	0	0	3	0	1	0	46	513
5:50 PM	0	26	1	0	1	12	0	0	0	0	0	0	4	0	1	0	45	521
5:55 PM	0	23	1	0	0	13	0	1	0	0	0	0	5	0	2	0	45	528

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	312	4	0	0	240	0	0	0	0	0	0	4	0	0	0	560
Heavy Trucks	0	0	0		0	8	0		0	0	0		0	0	0		8
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

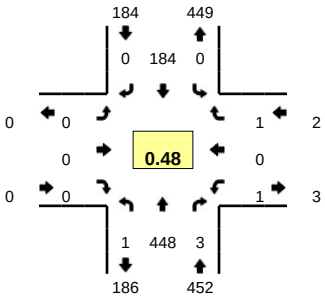
Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Del Oro High School North Lot

QC JOB #: 14812818

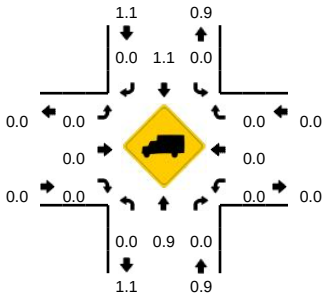
CITY/STATE: Loomis, CA

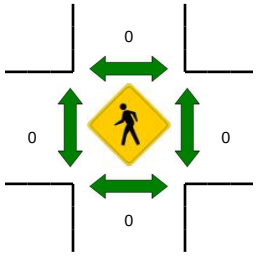
DATE: Sat, Oct 13 2018

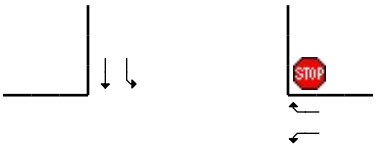


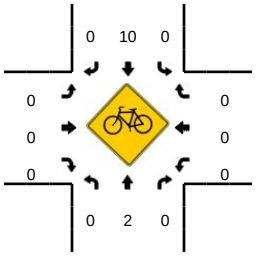
Peak-Hour: 11:05 AM -- 12:05 PM

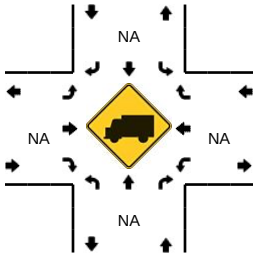
Peak 15-Min: 11:15 AM -- 11:30 AM

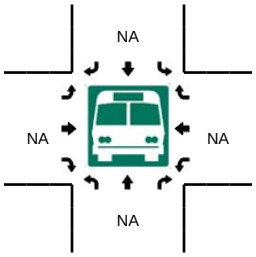












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Del Oro High School North Lot (Eastbound)				Del Oro High School North Lot (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	13	0	0	0	12	0	0	0	0	0	0	0	0	0	0	25	
11:05 AM	0	18	0	0	0	13	0	0	0	0	0	0	0	0	0	0	31	
11:10 AM	0	28	0	0	0	18	0	0	0	0	0	0	0	0	0	0	46	
11:15 AM	0	70	0	0	0	18	0	0	0	0	0	0	1	0	0	0	89	
11:20 AM	0	99	0	0	0	15	0	0	0	0	0	0	0	0	0	0	114	
11:25 AM	0	114	0	0	0	15	0	0	0	0	0	0	0	0	0	0	129	
11:30 AM	0	12	0	0	0	21	0	0	0	0	0	0	0	0	0	0	33	
11:35 AM	0	25	0	0	0	10	0	0	0	0	0	0	0	0	0	0	35	
11:40 AM	0	7	2	0	0	19	0	0	0	0	0	0	0	0	0	0	28	
11:45 AM	0	19	0	0	0	14	0	0	0	0	0	0	0	0	1	0	34	
11:50 AM	0	18	0	1	0	11	0	0	0	0	0	0	0	0	0	0	30	
11:55 AM	0	11	1	0	0	16	0	0	0	0	0	0	0	0	0	0	28	622
12:00 PM	0	27	0	0	0	14	0	0	0	0	0	0	0	0	0	0	41	638
12:05 PM	0	12	0	0	0	10	0	0	0	0	0	0	0	0	0	0	22	629
12:10 PM	0	20	0	0	0	14	0	0	0	0	0	0	0	0	0	0	34	617
12:15 PM	0	20	0	0	0	17	0	0	0	0	0	0	0	0	0	0	37	565
12:20 PM	0	19	0	0	0	14	0	0	0	0	0	0	0	0	0	0	33	484
12:25 PM	0	18	1	0	0	11	0	0	0	0	0	0	1	0	0	0	31	386
12:30 PM	0	16	0	0	0	15	0	0	0	0	0	0	2	0	0	0	33	386
12:35 PM	0	18	0	0	0	35	0	0	0	0	0	0	0	0	1	0	54	405
12:40 PM	0	13	1	0	0	17	0	0	0	0	0	0	0	0	1	0	32	409
12:45 PM	0	33	0	0	0	15	0	0	0	0	0	0	0	0	0	0	48	423
12:50 PM	0	21	0	0	0	18	0	0	0	0	0	0	0	0	0	0	39	432
12:55 PM	0	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	24	428

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1132	0	0	0	192	0	0	0	0	0	0	4	0	0	0	1328
Heavy Trucks	0	8	0		0	0	0		0	0	0		0	0	0		8
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

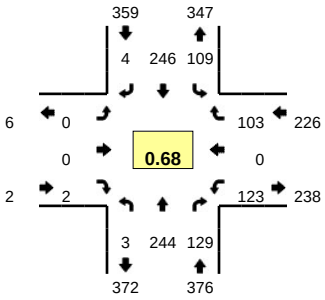
LOCATION: 29. Taylor Rd -- Del Oro High School Drop Off

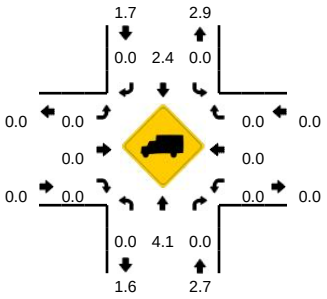
QC JOB #: 14812819

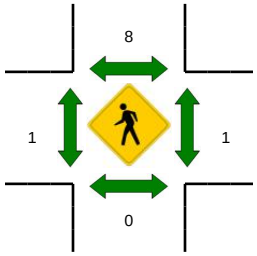
CITY/STATE: Loomis, CA

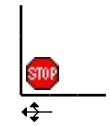
DATE: Wed, Oct 10 2018

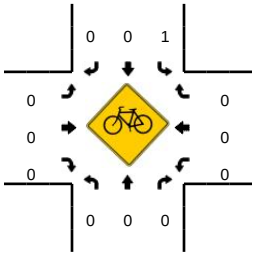
Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:25 AM -- 7:40 AM

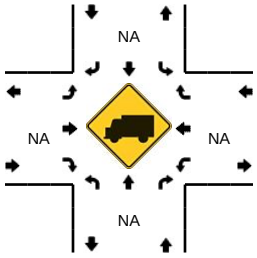


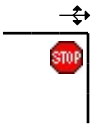


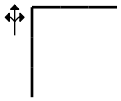


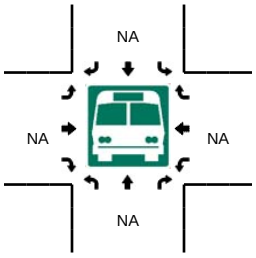












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Del Oro High School Drop Off (Eastbound)				Del Oro High School Drop Off (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	13	9	0	2	18	0	0	0	0	0	0	10	0	0	0	53	
7:05 AM	0	14	4	0	3	11	0	0	0	0	0	0	5	0	1	0	38	
7:10 AM	1	16	7	0	4	13	0	0	0	0	0	0	7	0	3	0	51	
7:15 AM	0	14	4	0	6	13	0	0	0	0	0	0	6	0	6	0	49	
7:20 AM	0	28	17	0	8	17	0	0	0	0	0	0	14	0	5	0	89	
7:25 AM	0	32	18	0	11	35	1	0	0	0	1	0	9	0	11	0	118	
7:30 AM	0	32	13	0	13	21	2	0	0	0	1	0	9	0	13	0	104	
7:35 AM	0	23	18	0	23	27	1	0	0	0	0	0	18	0	22	0	132	
7:40 AM	0	17	14	0	20	32	0	0	0	0	0	0	16	0	16	0	115	
7:45 AM	0	24	16	0	11	16	0	0	0	0	0	0	18	0	16	0	101	
7:50 AM	0	21	5	1	7	29	0	0	0	0	0	0	8	0	8	0	79	
7:55 AM	0	10	4	0	1	14	0	0	0	0	0	0	3	0	2	0	34	963
8:00 AM	0	11	2	0	2	16	0	0	0	0	0	0	2	0	0	0	33	943
8:05 AM	0	12	2	0	2	17	0	0	0	0	0	0	2	0	0	0	35	940
8:10 AM	0	15	0	0	1	16	0	0	0	0	0	0	2	0	0	0	34	923
8:15 AM	0	11	1	0	0	19	0	0	0	0	0	0	0	0	0	0	31	905
8:20 AM	0	9	0	0	1	17	0	0	0	0	0	0	0	0	0	0	27	843
8:25 AM	0	9	1	0	0	13	0	0	0	0	0	0	0	0	0	0	23	748
8:30 AM	1	11	3	0	0	14	0	0	0	0	0	0	1	0	1	0	31	675
8:35 AM	0	9	0	0	1	12	0	0	0	0	0	0	0	0	1	0	23	566
8:40 AM	0	10	1	0	0	14	0	0	0	0	0	0	1	0	0	0	26	477
8:45 AM	0	11	0	0	0	13	0	0	0	0	0	0	1	0	0	0	25	401
8:50 AM	0	7	0	0	0	15	0	0	0	0	0	0	0	0	0	0	22	344
8:55 AM	0	17	0	0	0	8	0	0	0	0	0	0	0	0	0	0	25	335

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	348	196	0	188	332	16	0	0	0	8	0	144	0	184	0	1416
Heavy Trucks	0	4	0		0	12	0		0	0	0		0	0	0		16
Pedestrians		0				16				4				0			20
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

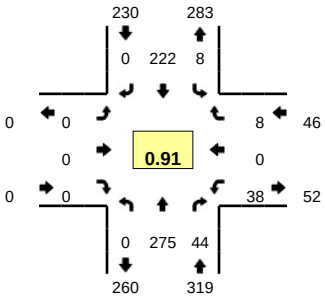
Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Del Oro High School Drop Off

QC JOB #: 14812820

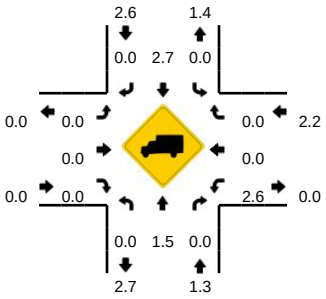
CITY/STATE: Loomis, CA

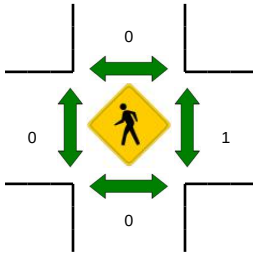
DATE: Wed, Oct 10 2018

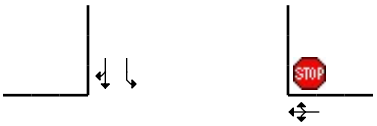


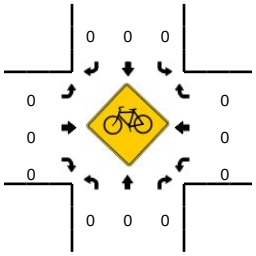
Peak-Hour: 4:55 PM -- 5:55 PM

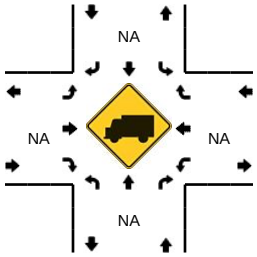
Peak 15-Min: 5:05 PM -- 5:20 PM

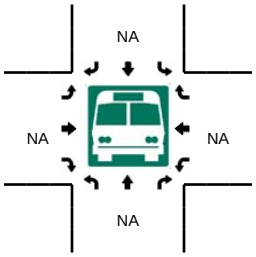












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Del Oro High School Drop Off (Eastbound)				Del Oro High School Drop Off (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	25	3	0	0	15	0	0	0	0	2	0	2	0	0	0	48	
4:05 PM	0	16	1	0	0	18	0	0	0	0	0	0	2	0	0	0	37	
4:10 PM	0	20	1	0	1	13	0	0	0	0	0	0	1	0	3	0	39	
4:15 PM	0	19	2	0	0	20	0	0	0	0	0	0	3	0	0	0	44	
4:20 PM	0	24	1	0	0	13	0	0	0	0	0	0	5	0	2	0	45	
4:25 PM	0	21	0	0	1	14	0	0	0	0	0	0	2	0	1	0	39	
4:30 PM	0	17	0	0	0	13	0	0	0	0	0	0	0	0	0	0	30	
4:35 PM	0	25	0	0	0	14	0	0	0	0	0	0	0	0	1	0	40	
4:40 PM	0	23	4	0	0	22	0	0	0	0	0	0	0	0	1	0	50	
4:45 PM	0	28	1	0	0	21	0	0	0	0	0	0	1	0	0	0	51	
4:50 PM	0	18	4	0	1	12	0	0	0	0	0	0	7	0	0	0	42	
4:55 PM	0	17	9	0	0	21	0	0	0	0	0	0	5	0	0	0	52	517
5:00 PM	0	16	3	0	3	14	0	0	0	0	0	0	5	0	0	0	41	510
5:05 PM	0	25	3	0	1	20	0	0	0	0	0	0	7	0	3	0	59	532
5:10 PM	0	17	4	0	0	19	0	0	0	0	0	0	5	0	0	0	45	538
5:15 PM	0	30	0	0	1	23	0	0	0	0	0	0	4	0	1	0	59	553
5:20 PM	0	25	1	0	0	20	0	0	0	0	0	0	0	0	0	0	46	554
5:25 PM	0	27	3	0	0	14	0	0	0	0	0	0	0	0	0	0	44	559
5:30 PM	0	28	3	0	1	17	0	0	0	0	0	0	2	0	0	0	51	580
5:35 PM	0	15	2	0	0	21	0	0	0	0	0	0	0	0	2	0	40	580
5:40 PM	0	25	5	0	0	19	0	0	0	0	0	0	4	0	1	0	54	584
5:45 PM	0	24	5	0	0	19	0	0	0	0	0	0	3	0	0	0	51	584
5:50 PM	0	26	6	0	2	15	0	0	0	0	0	0	3	0	1	0	53	595
5:55 PM	0	23	2	0	0	19	0	0	0	0	0	0	7	0	1	0	52	595

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	288	28	0	8	248	0	0	0	0	0	0	64	0	16	0	652
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

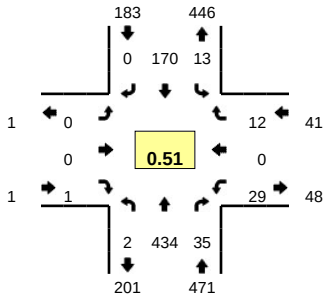
Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Del Oro High School Drop Off

QC JOB #: 14812821

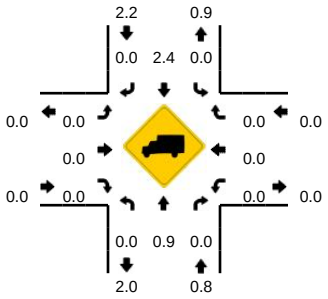
CITY/STATE: Loomis, CA

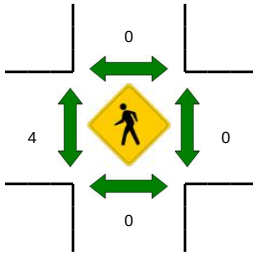
DATE: Sat, Oct 13 2018

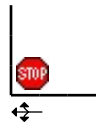


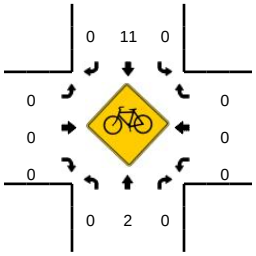
Peak-Hour: 11:05 AM -- 12:05 PM

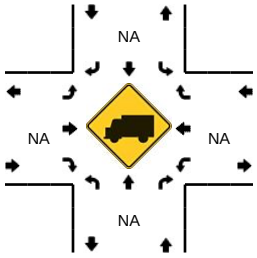
Peak 15-Min: 11:15 AM -- 11:30 AM

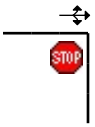


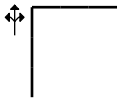


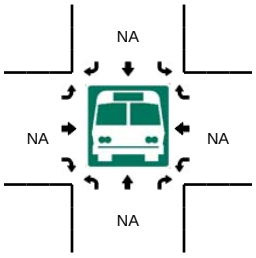












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Del Oro High School Drop Off (Eastbound)				Del Oro High School Drop Off (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	12	0	0	0	12	0	0	0	0	0	0	2	0	0	0	26	
11:05 AM	0	21	2	0	0	10	0	0	0	0	0	0	0	0	0	0	33	
11:10 AM	0	28	0	0	1	17	0	0	0	0	0	0	1	0	0	0	47	
11:15 AM	0	69	1	0	0	19	0	0	0	0	0	0	1	0	0	0	90	
11:20 AM	1	97	3	0	1	16	0	0	0	0	1	0	1	0	1	0	121	
11:25 AM	0	105	4	1	3	11	0	0	0	0	0	0	5	0	1	0	130	
11:30 AM	0	14	0	0	2	19	0	0	0	0	0	0	1	0	0	0	36	
11:35 AM	0	20	3	0	0	11	0	0	0	0	0	0	0	0	4	0	38	
11:40 AM	0	11	3	0	0	20	0	0	0	0	0	0	6	0	1	0	41	
11:45 AM	0	16	4	0	1	10	0	0	0	0	0	0	4	0	1	0	36	
11:50 AM	0	16	6	0	1	10	0	0	0	0	0	0	2	0	1	0	36	
11:55 AM	0	13	2	0	1	19	0	0	0	0	0	0	2	0	2	0	39	673
12:00 PM	0	24	7	0	3	8	0	0	0	0	0	0	6	0	1	0	49	696
12:05 PM	0	14	0	0	0	9	0	0	0	0	0	0	1	0	0	0	24	687
12:10 PM	0	19	1	0	0	15	0	0	0	0	0	0	1	0	0	0	36	676
12:15 PM	0	19	4	0	0	16	0	0	0	0	0	0	1	0	0	0	40	626
12:20 PM	0	21	0	0	0	15	0	0	0	0	0	0	0	0	1	0	37	542
12:25 PM	0	16	0	0	1	13	0	0	0	0	0	0	1	0	0	0	31	443
12:30 PM	0	15	0	0	1	15	0	0	0	0	0	0	0	0	0	0	31	438
12:35 PM	0	21	1	0	0	40	0	0	0	0	0	0	0	0	0	0	62	462
12:40 PM	0	12	0	0	0	11	0	0	0	0	0	0	1	0	0	0	24	445
12:45 PM	0	34	0	0	0	16	0	0	0	0	0	0	0	0	0	0	50	459
12:50 PM	0	22	2	0	0	18	0	0	0	0	0	0	0	0	0	0	42	465
12:55 PM	0	8	1	0	0	12	0	0	0	0	0	0	0	0	0	0	21	447

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	1084	32	4	16	184	0	0	0	0	4	0	28	0	8	0	1364
Heavy Trucks	0	8	0		0	4	0		0	0	0		0	0	0		12
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Del Oro High School South Lot

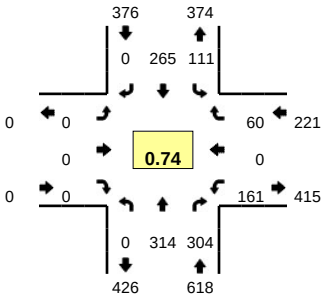
QC JOB #: 14812822

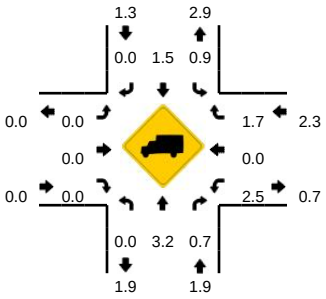
CITY/STATE: Loomis, CA

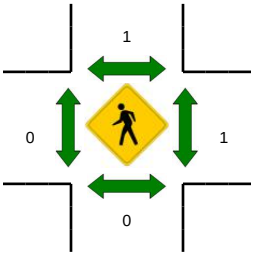
DATE: Wed, Oct 10 2018

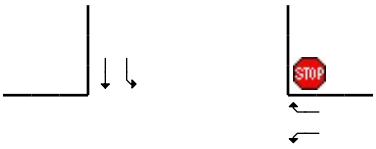
Peak-Hour: 7:00 AM -- 8:00 AM

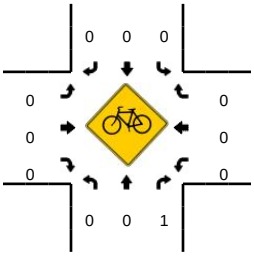
Peak 15-Min: 7:35 AM -- 7:50 AM

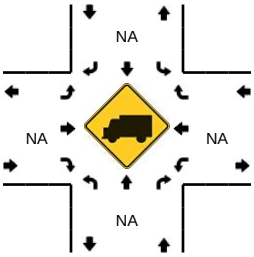


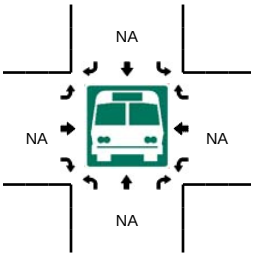












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Del Oro High School South Lot (Eastbound)				Del Oro High School South Lot (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	21	11	0	8	20	0	0	0	0	0	0	12	0	1	0	73	
7:05 AM	0	15	23	0	3	14	0	0	0	0	0	0	11	0	2	0	68	
7:10 AM	0	22	9	0	6	15	0	0	0	0	0	0	6	0	1	0	59	
7:15 AM	0	21	17	0	7	12	0	0	0	0	0	0	9	0	1	0	67	
7:20 AM	0	40	35	0	9	22	0	0	0	0	0	0	14	0	5	0	125	
7:25 AM	0	41	37	0	16	24	0	0	0	0	0	0	8	0	9	0	135	
7:30 AM	0	41	34	0	14	22	0	0	0	0	0	0	15	0	6	0	132	
7:35 AM	0	30	44	0	12	29	0	0	0	0	0	0	14	0	5	0	134	
7:40 AM	0	26	38	0	19	32	0	0	0	0	0	0	15	0	10	0	140	
7:45 AM	0	28	43	0	5	31	0	0	0	0	0	0	24	0	8	0	139	
7:50 AM	0	19	10	0	9	30	0	0	0	0	0	0	29	0	10	0	107	
7:55 AM	0	10	3	0	3	14	0	0	0	0	0	0	4	0	2	0	36	1215
8:00 AM	0	14	4	0	1	17	0	0	0	0	0	0	1	0	0	0	37	1179
8:05 AM	0	12	1	0	1	18	0	0	0	0	0	0	0	0	1	0	33	1144
8:10 AM	0	18	3	0	1	17	0	0	0	0	0	0	1	0	0	0	40	1125
8:15 AM	0	9	1	0	4	15	0	0	0	0	0	0	1	0	0	0	30	1088
8:20 AM	0	9	3	0	2	16	0	0	0	0	0	0	0	0	0	0	30	993
8:25 AM	0	8	4	0	1	12	0	0	0	0	0	0	1	0	2	0	28	886
8:30 AM	0	13	4	0	1	14	0	0	0	0	0	0	3	0	3	0	38	792
8:35 AM	0	7	1	0	0	12	0	0	0	0	0	0	1	0	1	0	22	680
8:40 AM	0	12	2	0	0	15	0	0	0	0	0	0	1	0	1	0	31	571
8:45 AM	0	9	2	0	0	14	0	0	0	0	0	0	3	0	1	0	29	461
8:50 AM	0	6	2	0	2	13	0	0	0	0	0	0	2	0	0	0	25	379
8:55 AM	0	17	4	0	0	8	0	0	0	0	0	0	1	0	0	0	30	373

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	336	500	0	144	368	0	0	0	0	0	0	212	0	92	0	1652
Heavy Trucks	0	4	8		0	4	0		0	0	0		8	0	4		28
Pedestrians		0				0				0				0			0
Bicycles	0	0	1		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

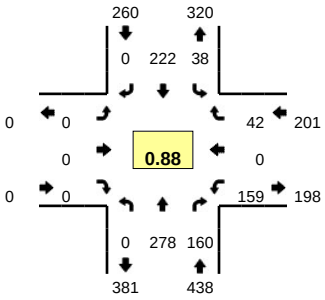
Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Del Oro High School South Lot

QC JOB #: 14812823

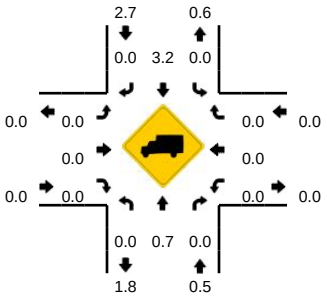
CITY/STATE: Loomis, CA

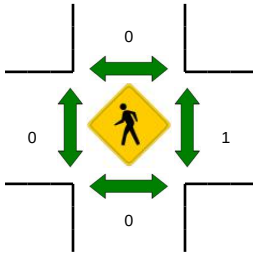
DATE: Wed, Oct 10 2018

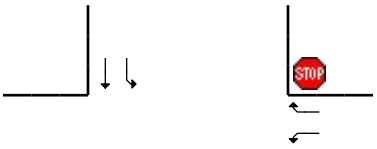


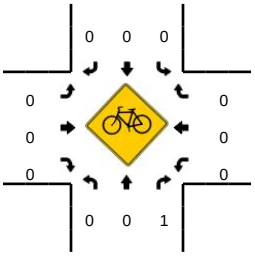
Peak-Hour: 4:55 PM -- 5:55 PM

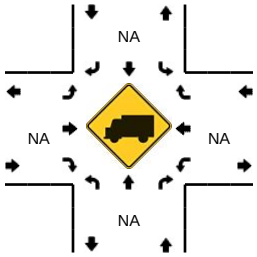
Peak 15-Min: 5:40 PM -- 5:55 PM

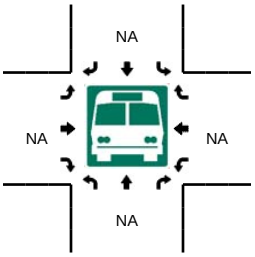












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Del Oro High School South Lot (Eastbound)				Del Oro High School South Lot (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	26	0	0	1	18	0	0	0	0	0	0	2	0	3	0	50	
4:05 PM	0	16	1	0	1	19	0	0	0	0	0	0	4	0	1	0	42	
4:10 PM	0	21	5	0	0	14	0	0	0	0	0	0	5	0	1	0	46	
4:15 PM	0	20	6	0	2	21	0	0	0	0	0	0	4	0	0	0	53	
4:20 PM	0	22	14	0	1	16	0	0	0	0	0	0	3	0	3	0	59	
4:25 PM	0	19	4	0	2	15	0	0	0	0	0	0	9	0	3	0	52	
4:30 PM	0	16	8	0	1	11	0	0	0	0	0	0	8	0	1	0	45	
4:35 PM	0	25	4	0	1	14	0	0	0	0	0	0	2	0	0	0	46	
4:40 PM	0	23	6	0	5	18	0	0	0	0	0	0	14	0	4	0	70	
4:45 PM	0	24	9	0	2	18	0	0	0	0	0	0	13	0	6	0	72	
4:50 PM	0	19	11	0	3	16	0	0	0	0	0	0	8	0	5	0	62	
4:55 PM	0	21	15	0	4	22	0	0	0	0	0	0	14	0	5	0	81	678
5:00 PM	0	15	12	0	1	18	0	0	0	0	0	0	12	0	3	0	61	689
5:05 PM	0	24	22	0	0	26	0	0	0	0	0	0	18	0	4	0	94	741
5:10 PM	0	19	8	0	8	15	0	0	0	0	0	0	13	0	2	0	65	760
5:15 PM	0	25	12	0	5	22	0	0	0	0	0	0	11	0	6	0	81	788
5:20 PM	0	21	13	0	6	13	0	0	0	0	0	0	12	0	4	0	69	798
5:25 PM	0	28	8	0	1	14	0	0	0	0	0	0	10	0	2	0	63	809
5:30 PM	0	29	7	0	2	17	0	0	0	0	0	0	7	0	3	0	65	829
5:35 PM	0	12	13	0	3	19	0	0	0	0	0	0	16	0	3	0	66	849
5:40 PM	0	29	15	0	5	18	0	0	0	0	0	0	11	0	3	0	81	860
5:45 PM	0	25	17	0	3	19	0	0	0	0	0	0	11	0	3	0	78	866
5:50 PM	0	30	18	0	0	19	0	0	0	0	0	0	24	0	4	0	95	899
5:55 PM	0	20	12	0	2	24	0	0	0	0	0	0	12	0	3	0	73	891

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	336	200	0	32	224	0	0	0	0	0	0	184	0	40	0	1016
Heavy Trucks	0	4	0		0	8	0		0	0	0		0	0	0		12
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

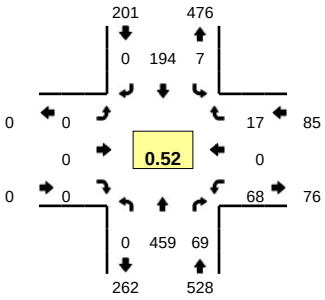
Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Del Oro High School South Lot

QC JOB #: 14812824

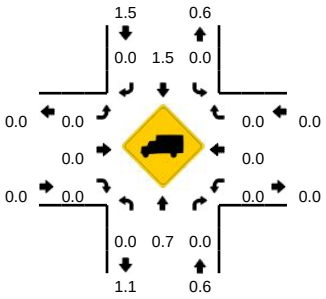
CITY/STATE: Loomis, CA

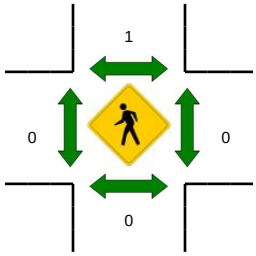
DATE: Sat, Oct 13 2018

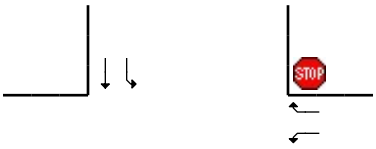


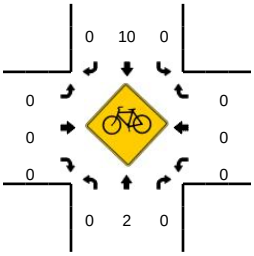
Peak-Hour: 11:05 AM -- 12:05 PM

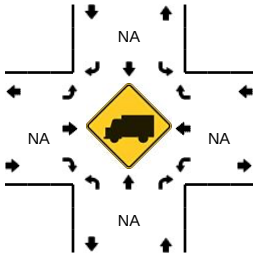
Peak 15-Min: 11:15 AM -- 11:30 AM

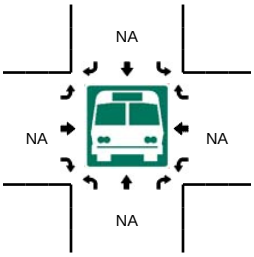












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Del Oro High School South Lot (Eastbound)				Del Oro High School South Lot (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	12	4	0	0	13	0	0	0	0	0	0	4	0	1	0	34	
11:05 AM	0	21	1	0	0	11	0	0	0	0	0	0	0	0	1	0	34	
11:10 AM	0	26	2	0	1	17	0	0	0	0	0	0	2	0	1	0	49	
11:15 AM	0	65	6	0	1	19	0	0	0	0	0	0	16	0	5	0	112	
11:20 AM	0	99	6	0	0	17	0	0	0	0	0	0	14	0	2	0	138	
11:25 AM	0	115	6	0	0	18	0	0	0	0	0	0	4	0	2	0	145	
11:30 AM	0	13	6	0	1	19	0	0	0	0	0	0	5	0	1	0	45	
11:35 AM	0	24	11	0	0	11	0	0	0	0	0	0	0	0	0	0	46	
11:40 AM	0	14	10	0	1	23	0	0	0	0	0	0	2	0	0	0	50	
11:45 AM	0	18	6	0	1	15	0	0	0	0	0	0	2	0	0	0	42	
11:50 AM	0	20	8	0	1	11	0	0	0	0	0	0	8	0	2	0	50	
11:55 AM	0	15	4	0	1	19	0	0	0	0	0	0	10	0	0	0	49	794
12:00 PM	0	29	3	0	0	14	0	0	0	0	0	0	5	0	3	0	54	814
12:05 PM	0	14	2	0	0	10	0	0	0	0	0	0	3	0	0	0	29	809
12:10 PM	0	19	4	0	0	16	0	0	0	0	0	0	1	0	0	0	40	800
12:15 PM	0	22	6	0	0	17	0	0	0	0	0	0	1	0	2	0	48	736
12:20 PM	0	21	2	0	1	13	0	0	0	0	0	0	1	0	0	0	38	636
12:25 PM	0	15	5	0	0	14	0	0	0	0	0	0	2	0	1	0	37	528
12:30 PM	0	15	1	0	0	15	0	0	0	0	0	0	2	0	0	0	33	516
12:35 PM	0	22	2	0	0	40	0	0	0	0	0	0	2	0	0	0	66	536
12:40 PM	0	10	2	0	1	11	0	0	0	0	0	0	2	0	1	0	27	513
12:45 PM	0	35	2	0	0	16	0	0	0	0	0	0	2	0	0	0	55	526
12:50 PM	0	23	1	0	0	18	0	0	0	0	0	0	3	0	1	0	46	522
12:55 PM	0	7	2	0	1	11	0	0	0	0	0	0	2	0	1	0	24	497

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1116	72	0	4	216	0	0	0	0	0	0	136	0	36	0	1580
Heavy Trucks	0	8	0		0	0	0		0	0	0		0	0	0		8
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Rippey Rd

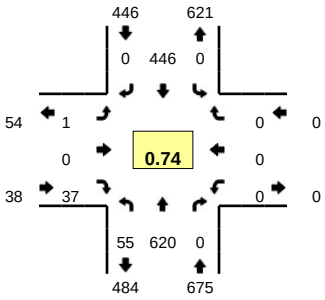
CITY/STATE: Loomis, CA

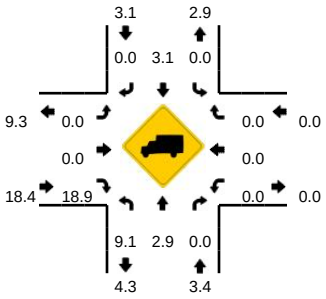
QC JOB #: 14812825

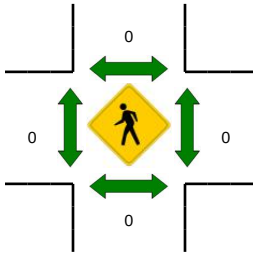
DATE: Wed, Oct 10 2018

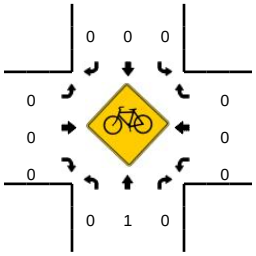
Peak-Hour: 7:00 AM -- 8:00 AM

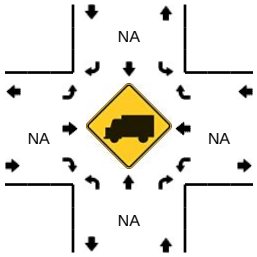
Peak 15-Min: 7:25 AM -- 7:40 AM

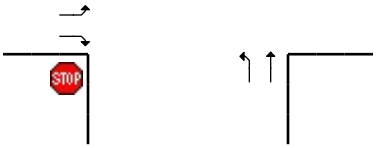


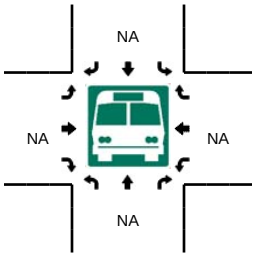












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Rippey Rd (Eastbound)				Rippey Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	34	0	0	0	32	0	0	0	0	4	0	0	0	0	0	73	
7:05 AM	4	41	0	0	0	28	0	0	0	0	3	0	0	0	0	0	76	
7:10 AM	4	31	0	0	0	25	0	0	0	0	3	0	0	0	0	0	63	
7:15 AM	6	50	0	1	0	22	0	0	0	0	3	0	0	0	0	0	82	
7:20 AM	7	78	0	0	0	33	0	0	0	0	2	0	0	0	0	0	120	
7:25 AM	4	91	0	0	0	41	0	0	0	0	0	0	0	0	0	0	136	
7:30 AM	6	88	0	0	0	36	0	0	0	0	4	0	0	0	0	0	134	
7:35 AM	4	65	0	0	0	50	0	0	0	0	4	0	0	0	0	0	123	
7:40 AM	6	66	0	0	0	44	0	0	0	0	2	0	0	0	0	0	118	
7:45 AM	3	37	0	0	0	50	0	0	0	0	3	0	0	0	0	0	93	
7:50 AM	5	26	0	0	0	61	0	0	0	0	6	0	0	0	0	0	98	
7:55 AM	2	13	0	0	0	24	0	0	1	0	3	0	0	0	0	0	43	1159
8:00 AM	8	19	0	0	0	19	0	0	1	0	0	0	0	0	0	0	47	1133
8:05 AM	7	15	0	2	0	29	0	0	0	0	4	0	0	0	0	0	57	1114
8:10 AM	3	19	0	1	0	22	0	0	0	0	1	0	0	0	0	0	46	1097
8:15 AM	7	16	0	1	0	16	0	0	0	0	3	0	0	0	0	0	43	1058
8:20 AM	5	17	0	0	0	22	0	0	0	0	1	0	0	0	0	0	45	983
8:25 AM	3	18	0	1	0	14	0	0	0	0	2	0	0	0	0	0	38	885
8:30 AM	2	11	0	0	0	17	1	0	0	0	2	0	0	0	0	0	33	784
8:35 AM	2	14	0	0	0	15	0	0	0	0	4	0	0	0	0	0	35	696
8:40 AM	4	12	0	0	0	23	1	0	0	0	2	0	0	0	0	0	42	620
8:45 AM	3	10	0	0	0	12	0	0	0	0	2	0	0	0	0	0	27	554
8:50 AM	7	14	0	0	0	20	0	0	0	0	3	0	0	0	0	0	44	500
8:55 AM	6	20	0	0	0	11	0	0	0	0	3	0	0	0	0	0	40	497

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	56	976	0	0	0	508	0	0	0	0	32	0	0	0	0	0	1572
Heavy Trucks	4	12	0		0	16	0		0	0	8		0	0	0		40
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Rippey Rd

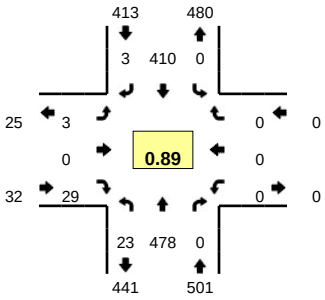
CITY/STATE: Loomis, CA

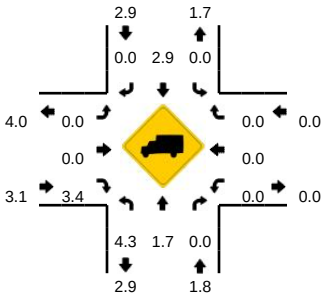
QC JOB #: 14812826

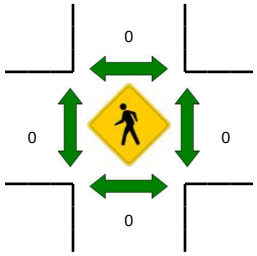
DATE: Wed, Oct 10 2018

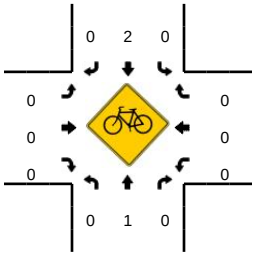
Peak-Hour: 4:55 PM -- 5:55 PM

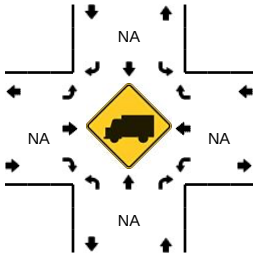
Peak 15-Min: 5:40 PM -- 5:55 PM

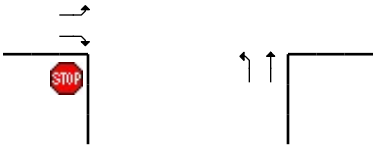


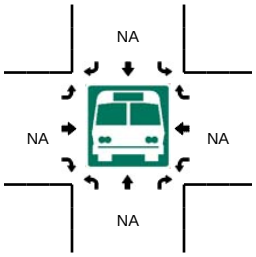












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Rippey Rd (Eastbound)				Rippey Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	28	0	1	0	22	0	0	0	0	5	0	0	0	0	0	59	
4:05 PM	2	30	0	0	0	27	0	0	1	0	7	0	0	0	0	0	67	
4:10 PM	2	24	0	0	0	19	0	0	1	0	4	0	0	0	0	0	50	
4:15 PM	1	30	0	0	0	29	0	0	1	0	7	0	0	0	0	0	68	
4:20 PM	2	35	0	0	0	23	0	0	1	0	5	0	0	0	0	0	66	
4:25 PM	1	27	0	0	0	28	0	0	0	0	3	0	0	0	0	0	59	
4:30 PM	2	30	0	0	0	22	0	0	0	0	1	0	0	0	0	0	55	
4:35 PM	1	32	0	0	0	19	0	0	0	0	1	0	0	0	0	0	53	
4:40 PM	2	33	0	0	0	34	0	0	0	0	1	0	0	0	0	0	70	
4:45 PM	4	34	0	0	0	37	1	0	0	0	4	0	0	0	0	0	80	
4:50 PM	4	36	0	0	0	27	0	0	0	0	3	0	0	0	0	0	70	
4:55 PM	1	41	0	0	0	34	0	0	0	0	4	0	0	0	0	0	80	777
5:00 PM	0	34	0	0	0	40	1	0	0	0	1	1	0	0	0	0	77	795
5:05 PM	1	41	0	0	0	47	0	0	0	0	3	0	0	0	0	0	92	820
5:10 PM	1	30	0	0	0	32	0	0	0	0	2	0	0	0	0	0	65	835
5:15 PM	0	43	0	0	0	35	0	0	0	0	1	0	0	0	0	0	79	846
5:20 PM	2	37	0	0	0	27	0	0	1	0	2	0	0	0	0	0	69	849
5:25 PM	3	36	0	1	0	26	0	0	0	0	4	0	0	0	0	0	70	860
5:30 PM	2	43	0	0	0	26	0	0	0	0	4	0	0	0	0	0	75	880
5:35 PM	4	35	0	0	0	30	0	0	0	0	3	0	0	0	0	0	72	899
5:40 PM	2	43	0	0	0	39	2	0	0	0	2	0	0	0	0	0	88	917
5:45 PM	2	46	0	1	0	33	0	0	1	0	1	0	0	0	0	0	84	921
5:50 PM	3	49	0	0	0	41	0	0	0	0	2	0	0	0	0	0	95	946
5:55 PM	0	36	0	0	0	41	0	0	0	0	2	0	0	0	0	0	79	945

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	552	0	4	0	452	8	0	4	0	20	0	0	0	0	0	1068
Heavy Trucks	0	4	0		0	20	0		0	0	4		0	0	0		28
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Rippey Rd

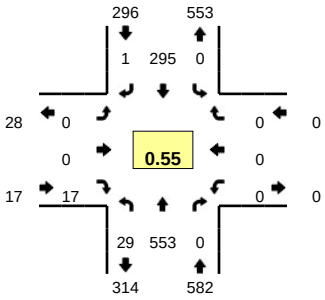
CITY/STATE: Loomis, CA

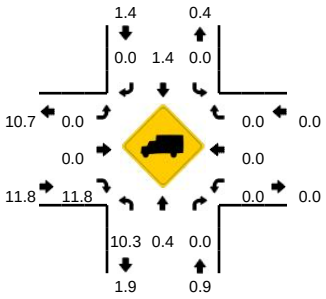
QC JOB #: 14812827

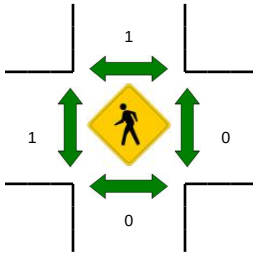
DATE: Sat, Oct 13 2018

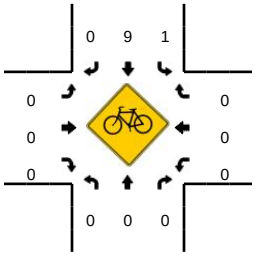
Peak-Hour: 11:05 AM -- 12:05 PM

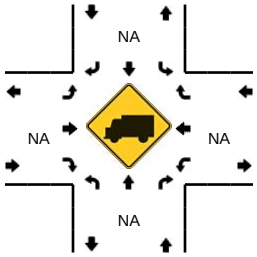
Peak 15-Min: 11:15 AM -- 11:30 AM

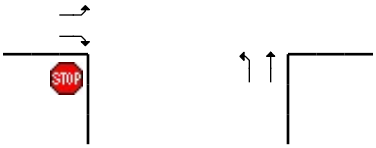


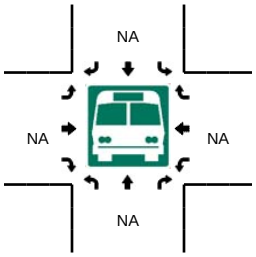












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Rippey Rd (Eastbound)				Rippey Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	19	0	0	0	20	0	0	0	0	1	0	0	0	0	0	40	
11:05 AM	3	33	0	0	0	15	0	0	0	0	2	0	0	0	0	0	53	
11:10 AM	2	27	0	1	0	22	0	0	0	0	1	0	0	0	0	0	53	
11:15 AM	2	79	0	0	0	34	1	0	0	0	2	0	0	0	0	0	118	
11:20 AM	2	128	0	0	0	33	0	0	0	0	2	0	0	0	0	0	165	
11:25 AM	2	91	0	0	0	29	0	0	0	0	1	0	0	0	0	0	123	
11:30 AM	1	19	0	0	0	27	0	0	0	0	0	0	0	0	0	0	47	
11:35 AM	0	37	0	0	0	12	0	0	0	0	1	0	0	0	0	0	50	
11:40 AM	5	27	0	1	0	28	0	0	0	0	0	0	0	0	0	0	61	
11:45 AM	3	29	0	0	0	20	0	0	0	0	3	0	0	0	0	0	55	
11:50 AM	1	26	0	0	0	25	0	0	0	0	2	0	0	0	0	0	54	
11:55 AM	3	25	0	0	0	26	0	0	0	0	1	0	0	0	0	0	55	874
12:00 PM	3	32	0	0	0	24	0	0	0	0	2	0	0	0	0	0	61	895
12:05 PM	0	23	0	0	0	18	0	0	0	0	2	0	0	0	0	0	43	885
12:10 PM	0	26	0	0	0	17	0	0	0	0	0	0	0	0	0	0	43	875
12:15 PM	2	28	0	0	0	18	0	0	0	0	0	0	0	0	0	0	48	805
12:20 PM	1	25	0	0	0	10	0	0	0	0	0	0	0	0	0	0	36	676
12:25 PM	2	23	0	0	0	18	0	0	0	0	2	0	0	0	0	0	45	598
12:30 PM	1	18	0	0	0	33	0	0	0	0	2	0	0	0	0	0	54	605
12:35 PM	3	21	0	1	0	43	1	0	0	0	1	0	0	0	0	0	70	625
12:40 PM	2	22	0	0	0	22	0	0	0	0	1	0	0	0	0	0	47	611
12:45 PM	2	36	0	0	0	20	0	0	0	0	2	0	0	0	0	0	60	616
12:50 PM	0	26	0	0	0	23	0	0	0	0	3	0	0	0	0	0	52	614
12:55 PM	1	20	0	0	0	18	0	0	0	0	1	0	0	0	0	0	40	599

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	1192	0	0	0	384	4	0	0	0	20	0	0	0	0	0	1624
Heavy Trucks	0	8	0		0	0	0		0	0	4		0	0	0		12
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		1	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

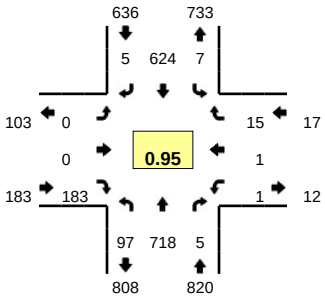
LOCATION: 29. Taylor Rd -- Webb St

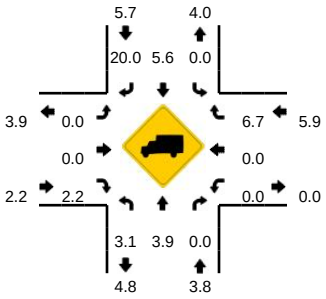
QC JOB #: 14812828

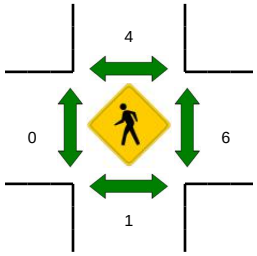
CITY/STATE: Loomis, CA

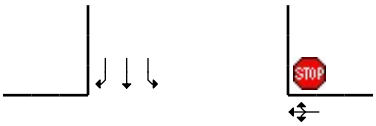
DATE: Wed, Oct 10 2018

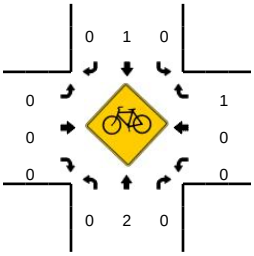
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

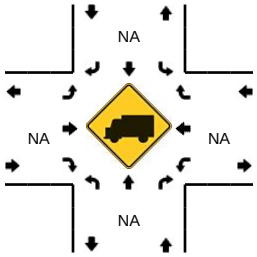


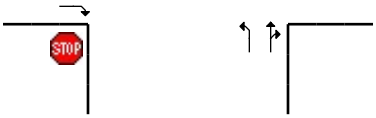


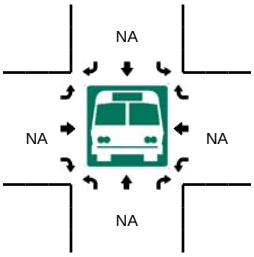












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Webb St (Eastbound)				Webb St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	5	57	0	0	2	47	0	0	0	0	8	0	0	0	0	0	119	
7:05 AM	7	40	0	0	2	54	2	0	0	0	10	0	0	1	0	0	116	
7:10 AM	3	63	0	0	1	41	1	0	0	0	5	0	0	0	0	0	114	
7:15 AM	5	61	1	0	1	44	1	0	0	0	21	0	0	0	0	0	134	
7:20 AM	4	67	0	0	1	46	0	0	0	0	15	0	0	0	1	0	134	
7:25 AM	6	77	0	0	0	45	0	0	0	0	16	0	0	0	1	0	145	
7:30 AM	4	74	1	0	0	52	0	0	0	0	11	0	0	0	1	0	143	
7:35 AM	5	61	0	0	0	56	0	0	0	0	7	0	0	0	1	0	130	
7:40 AM	12	57	2	0	1	64	0	0	0	0	11	0	0	0	1	0	148	
7:45 AM	11	50	0	0	1	67	0	0	0	0	16	0	0	0	0	0	145	
7:50 AM	8	48	0	0	1	63	3	0	0	0	15	0	0	1	4	0	143	
7:55 AM	12	51	0	0	0	48	0	0	0	0	14	0	0	0	1	0	126	1597
8:00 AM	15	63	0	0	0	38	0	0	0	0	20	0	0	0	1	0	137	1615
8:05 AM	9	51	1	0	1	42	1	0	0	0	21	0	1	0	2	0	129	1628
8:10 AM	6	58	0	0	1	59	0	0	0	0	16	0	0	0	2	0	142	1656
8:15 AM	5	54	0	0	0	55	0	0	0	0	16	0	0	0	1	0	131	1653
8:20 AM	10	57	0	0	1	48	0	0	0	0	15	0	0	0	0	0	131	1650
8:25 AM	3	46	0	0	0	55	1	0	0	1	16	0	0	0	1	0	123	1628
8:30 AM	6	31	0	0	0	51	0	0	0	0	15	0	0	0	1	0	104	1589
8:35 AM	8	44	0	0	1	42	1	0	0	0	13	0	1	0	3	0	113	1572
8:40 AM	5	32	1	0	1	40	0	0	0	0	10	0	0	0	0	0	89	1513
8:45 AM	7	40	0	0	2	35	0	0	0	0	8	0	0	0	2	0	94	1462
8:50 AM	7	42	1	0	0	39	1	0	0	0	7	0	0	0	0	0	97	1416
8:55 AM	5	49	0	0	0	30	0	0	0	0	12	0	0	1	1	0	98	1388

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	124	620	8	0	12	776	12	0	0	0	168	0	0	4	20	0	1744
Heavy Trucks	4	40	0		0	20	0		0	0	0		0	0	4		68
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Webb St

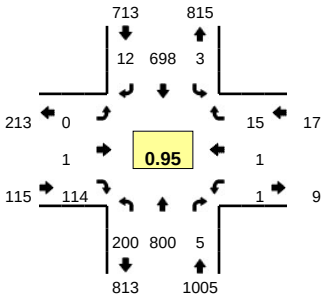
CITY/STATE: Loomis, CA

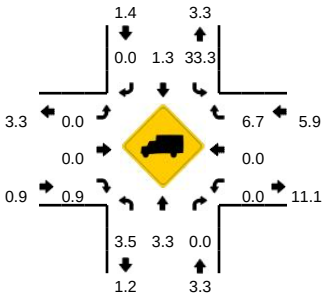
QC JOB #: 14812829

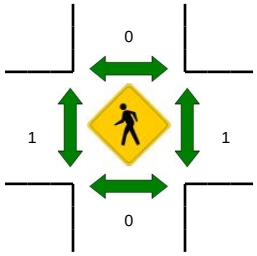
DATE: Wed, Oct 10 2018

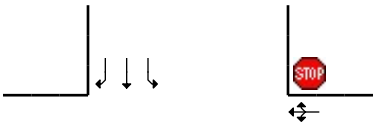
Peak-Hour: 5:00 PM -- 6:00 PM

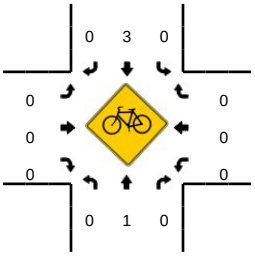
Peak 15-Min: 5:00 PM -- 5:15 PM

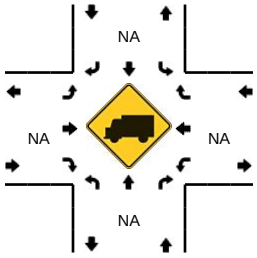


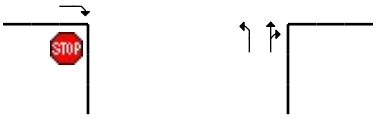


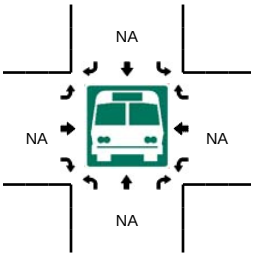












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Webb St (Eastbound)				Webb St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	10	62	5	0	0	53	0	0	0	0	9	0	0	0	0	0	139	
4:05 PM	21	54	1	0	3	58	0	0	0	0	10	0	0	0	4	0	151	
4:10 PM	8	49	0	0	1	59	0	0	0	0	19	0	0	0	3	0	139	
4:15 PM	14	57	0	0	0	56	1	0	0	0	8	0	0	0	0	0	136	
4:20 PM	14	62	0	0	1	48	0	0	0	0	8	0	0	0	0	0	133	
4:25 PM	24	58	0	0	0	45	1	0	0	0	5	0	0	0	0	0	133	
4:30 PM	14	46	0	0	0	58	0	0	0	0	8	0	0	0	1	0	127	
4:35 PM	14	55	0	0	0	57	1	0	0	0	11	0	0	0	0	0	138	
4:40 PM	17	55	1	0	0	50	0	0	0	0	13	0	0	0	0	0	136	
4:45 PM	20	61	1	0	1	50	1	0	0	0	11	0	0	0	1	0	146	
4:50 PM	14	52	2	0	1	36	0	0	0	0	13	0	0	0	1	0	119	
4:55 PM	16	55	1	0	1	54	0	0	0	0	6	0	0	0	0	0	133	1630
5:00 PM	29	63	2	0	0	54	2	0	0	0	11	0	0	0	3	0	164	1655
5:05 PM	9	68	0	0	0	69	0	0	0	0	7	0	0	0	0	0	153	1657
5:10 PM	15	79	0	0	0	65	1	0	0	0	9	0	0	0	2	0	171	1689
5:15 PM	25	70	1	0	0	54	0	0	0	0	13	0	0	0	0	0	163	1716
5:20 PM	15	59	0	0	0	40	2	0	0	0	10	0	1	0	2	0	129	1712
5:25 PM	13	75	0	0	1	52	1	0	0	0	6	0	0	0	4	0	152	1731
5:30 PM	15	64	0	0	1	75	0	0	0	0	12	0	0	0	2	0	169	1773
5:35 PM	20	58	2	0	0	57	0	0	0	1	13	0	0	1	1	0	153	1788
5:40 PM	12	72	0	0	1	60	4	0	0	0	9	0	0	0	1	0	159	1811
5:45 PM	10	70	0	0	0	43	1	0	0	0	12	0	0	0	0	0	136	1801
5:50 PM	19	67	0	0	0	64	1	0	0	0	6	0	0	0	0	0	157	1839
5:55 PM	18	55	0	0	0	65	0	0	0	0	6	0	0	0	0	0	144	1850

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	212	840	8	0	0	752	12	0	0	0	108	0	0	0	20	0	1952
Heavy Trucks	8	20	0		0	8	0		0	0	0		0	0	4		40
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 29. Taylor Rd -- Webb St

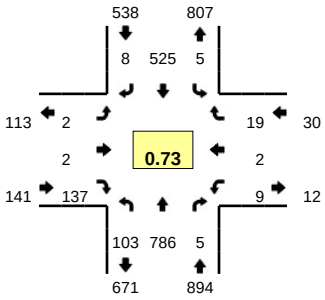
CITY/STATE: Loomis, CA

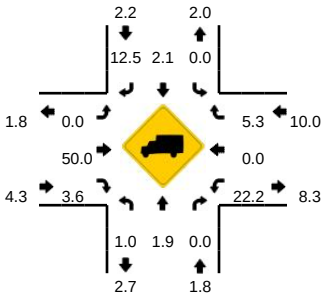
QC JOB #: 14812830

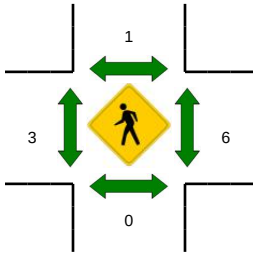
DATE: Sat, Oct 13 2018

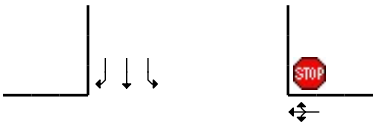
Peak-Hour: 11:15 AM -- 12:15 PM

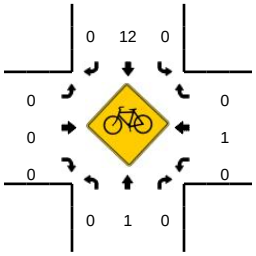
Peak 15-Min: 11:15 AM -- 11:30 AM

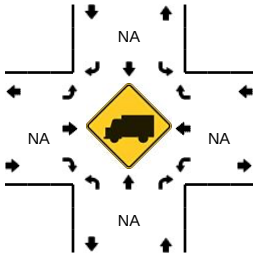


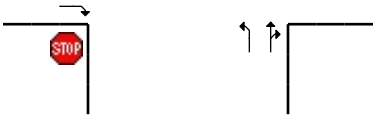


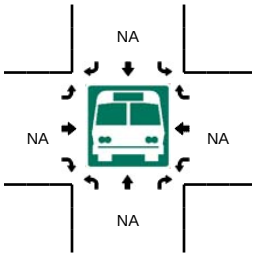












5-Min Count Period Beginning At	29. Taylor Rd (Northbound)				29. Taylor Rd (Southbound)				Webb St (Eastbound)				Webb St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	5	35	0	0	2	37	1	0	0	0	6	0	1	2	2	0	91	
11:05 AM	9	50	2	0	1	35	2	0	0	0	10	0	1	0	0	0	110	
11:10 AM	6	47	0	0	0	33	1	0	0	0	8	0	2	0	0	0	97	
11:15 AM	6	89	2	0	0	43	3	0	0	0	16	0	0	0	2	0	161	
11:20 AM	9	150	0	0	1	48	0	0	0	0	5	0	1	0	1	0	215	
11:25 AM	6	101	1	0	0	54	0	0	0	1	6	0	0	0	3	0	172	
11:30 AM	9	44	0	0	0	45	3	0	0	0	9	0	3	0	2	0	115	
11:35 AM	7	47	0	0	0	34	0	0	0	0	12	0	1	1	1	0	103	
11:40 AM	5	54	1	0	0	45	0	0	0	0	11	0	1	1	0	0	118	
11:45 AM	13	50	0	0	2	52	0	0	0	0	16	0	2	0	3	0	138	
11:50 AM	7	48	0	0	0	39	0	0	0	0	13	0	0	0	1	0	108	
11:55 AM	8	44	0	0	1	59	0	0	0	0	15	0	0	0	3	0	130	1558
12:00 PM	14	58	0	0	1	40	1	0	1	0	9	0	0	0	2	0	126	1593
12:05 PM	9	47	0	0	0	36	1	0	0	1	14	0	1	0	0	0	109	1592
12:10 PM	10	54	1	0	0	30	0	0	1	0	11	0	0	0	1	0	108	1603
12:15 PM	6	48	0	0	0	51	0	0	1	1	9	0	4	1	1	0	122	1564
12:20 PM	10	43	0	0	0	34	0	0	1	0	12	0	1	0	3	0	104	1453
12:25 PM	11	45	0	0	0	27	0	0	0	0	8	0	1	0	2	0	94	1375
12:30 PM	15	31	2	0	0	38	1	0	0	0	12	0	0	0	0	0	99	1359
12:35 PM	11	45	2	0	1	53	2	0	1	0	11	0	0	1	0	0	127	1383
12:40 PM	16	43	0	0	1	38	1	0	1	0	12	0	1	0	2	0	115	1380
12:45 PM	7	59	0	0	0	35	0	0	1	0	15	0	0	0	0	0	117	1359
12:50 PM	7	51	1	0	0	41	1	0	0	0	19	0	0	1	0	0	121	1372
12:55 PM	16	45	2	0	0	35	3	0	0	0	12	0	0	0	0	0	113	1355

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	84	1360	12	0	4	580	12	0	0	4	108	0	4	0	24	0	2192
Heavy Trucks	0	12	0		0	16	0		0	4	0		0	0	4		36
Pedestrians		0				0				4				4			8
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

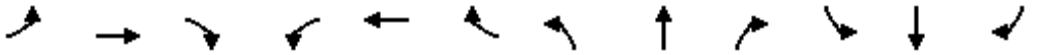
Comments:

Report generated on 10/25/2018 11:00 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Appendix B: Level-of-Service Worksheets (Synchro)

Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	118	223	135	133	125	209	361	80	40	301	112
Future Volume (veh/h)	171	118	223	135	133	125	209	361	80	40	301	112
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1727	1727	1827	1844	1900	1827	1863	1863	1900	1819	1900
Adj Flow Rate, veh/h	197	136	256	155	153	144	240	415	92	46	346	129
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	10	10	4	5	5	4	2	2	0	5	5
Cap, veh/h	379	372	309	372	186	175	282	634	530	59	502	183
Arrive On Green	0.22	0.22	0.22	0.21	0.21	0.21	0.16	0.34	0.34	0.03	0.21	0.21
Sat Flow, veh/h	1757	1727	1433	1740	870	819	1740	1863	1558	1810	2445	892
Grp Volume(v), veh/h	197	136	256	155	0	297	240	415	92	46	242	233
Grp Sat Flow(s),veh/h/ln	1757	1727	1433	1740	0	1688	1740	1863	1558	1810	1728	1609
Q Serve(g_s), s	8.8	5.9	15.1	6.8	0.0	14.9	11.9	16.8	3.7	2.2	11.5	11.9
Cycle Q Clear(g_c), s	8.8	5.9	15.1	6.8	0.0	14.9	11.9	16.8	3.7	2.2	11.5	11.9
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	379	372	309	372	0	361	282	634	530	59	355	330
V/C Ratio(X)	0.52	0.37	0.83	0.42	0.00	0.82	0.85	0.65	0.17	0.78	0.68	0.70
Avail Cap(c_a), veh/h	555	545	452	549	0	533	490	840	703	520	779	726
HCM Platoon Ratio	1.00	1.00	1.00	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	30.7	29.6	33.2	30.1	0.0	33.2	36.1	24.8	20.5	42.6	32.6	32.7
Incr Delay (d2), s/veh	0.4	0.2	5.3	0.3	0.0	4.1	7.1	0.4	0.1	7.9	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	4.3	2.9	6.4	3.3	0.0	7.3	6.3	8.6	1.6	1.2	5.5	5.4
LnGrp Delay(d),s/veh	31.1	29.8	38.5	30.4	0.0	37.3	43.3	25.3	20.6	50.5	33.4	33.8
LnGrp LOS	C	C	D	C		D	D	C	C	D	C	C
Approach Vol, veh/h		589			452			747			521	
Approach Delay, s/veh		34.0			34.9			30.5			35.1	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.9	35.7		23.1	18.9	23.7		23.0
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	25.5	40.0		28.0	25.0	40.0		28.0
Max Q Clear Time (g_c+I1), s	4.2	18.8		17.1	13.9	13.9		16.9
Green Ext Time (p_c), s	0.0	3.9		1.1	0.5	4.0		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	33.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	45	11	50	7	490	2	325	55	428	340	1
Future Volume (veh/h)	6	45	11	50	7	490	2	325	55	428	340	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1813	1900	1900	1900	1827	1900	1827	1827	1827	1793	1900
Adj Flow Rate, veh/h	6	48	12	54	8	527	2	349	59	460	366	1
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	4	0	4	4	4	6	6
Cap, veh/h	76	374	86	453	60	825	3	509	426	439	946	3
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.00	0.28	0.28	0.25	0.53	0.53
Sat Flow, veh/h	52	1337	309	1238	215	1547	1810	1827	1531	1740	1787	5
Grp Volume(v), veh/h	66	0	0	62	0	527	2	349	59	460	0	367
Grp Sat Flow(s),veh/h/ln	1697	0	0	1454	0	1547	1810	1827	1531	1740	0	1792
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	15.3	0.1	10.8	1.8	16.0	0.0	7.7
Cycle Q Clear(g_c), s	1.8	0.0	0.0	1.6	0.0	15.3	0.1	10.8	1.8	16.0	0.0	7.7
Prop In Lane	0.09		0.18	0.87		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	536	0	0	513	0	825	3	509	426	439	0	949
V/C Ratio(X)	0.12	0.00	0.00	0.12	0.00	0.64	0.67	0.69	0.14	1.05	0.00	0.39
Avail Cap(c_a), veh/h	594	0	0	530	0	844	457	1038	869	439	0	1018
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.1	0.0	0.0	17.0	0.0	10.5	31.6	20.4	17.2	23.7	0.0	8.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	1.6	68.8	1.6	0.1	55.8	0.0	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	0.9	0.0	0.0	0.8	0.0	6.8	0.1	5.7	0.8	14.4	0.0	3.8
LnGrp Delay(d),s/veh	17.2	0.0	0.0	17.1	0.0	12.1	100.4	22.0	17.3	79.5	0.0	9.1
LnGrp LOS	B			B		B	F	C	B	F		A
Approach Vol, veh/h		66			589			410			827	
Approach Delay, s/veh		17.2			12.6			21.7			48.3	
Approach LOS		B			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.0	21.7		21.7	4.1	37.6		21.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	16.0	36.0		20.0	16.0	36.0		18.5
Max Q Clear Time (g_c+I1), s	18.0	12.8		3.8	2.1	9.7		17.3
Green Ext Time (p_c), s	0.0	4.9		2.6	0.0	5.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	32	121	50	52	26	166	512	62	18	219	362
Future Volume (veh/h)	58	32	121	50	52	26	166	512	62	18	219	362
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1841	1845	1863	1804	1900	1863	1835	1900	1900	1810	1810
Adj Flow Rate, veh/h	64	35	133	55	57	29	182	563	68	20	241	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	3	2	8	8	2	4	4	0	5	5
Cap, veh/h	157	86	213	208	132	67	236	1168	141	45	479	407
Arrive On Green	0.14	0.14	0.14	0.12	0.12	0.12	0.13	0.37	0.37	0.02	0.26	0.00
Sat Flow, veh/h	1153	630	1568	1774	1129	574	1774	3133	377	1810	1810	1538
Grp Volume(v), veh/h	99	0	133	55	0	86	182	313	318	20	241	0
Grp Sat Flow(s),veh/h/ln	1783	0	1568	1774	0	1703	1774	1743	1768	1810	1810	1538
Q Serve(g_s), s	2.1	0.0	3.3	1.2	0.0	1.9	4.1	5.6	5.6	0.4	4.6	0.0
Cycle Q Clear(g_c), s	2.1	0.0	3.3	1.2	0.0	1.9	4.1	5.6	5.6	0.4	4.6	0.0
Prop In Lane	0.65		1.00	1.00		0.34	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	243	0	213	208	0	199	236	650	659	45	479	407
V/C Ratio(X)	0.41	0.00	0.62	0.26	0.00	0.43	0.77	0.48	0.48	0.44	0.50	0.00
Avail Cap(c_a), veh/h	1306	0	1149	1083	0	1040	867	1703	1727	884	1768	1503
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	16.2	0.0	16.7	16.5	0.0	16.8	17.1	9.8	9.8	19.7	12.8	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.1	0.2	0.0	0.5	2.0	0.3	0.3	2.5	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	1.0	0.0	1.5	0.6	0.0	0.9	2.1	2.7	2.8	0.3	2.3	0.0
LnGrp Delay(d),s/veh	16.6	0.0	17.8	16.7	0.0	17.4	19.2	10.1	10.1	22.2	13.2	0.0
LnGrp LOS	B		B	B		B	B	B	B	C	B	
Approach Vol, veh/h		232			141			813			261	
Approach Delay, s/veh		17.3			17.1			12.1			13.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.0	19.0		9.1	8.4	14.5		8.9
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	20.0	40.0		30.0	20.0	40.0		25.0
Max Q Clear Time (g_c+I1), s	2.4	7.6		5.3	6.1	6.6		3.9
Green Ext Time (p_c), s	0.0	4.2		0.5	0.2	4.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	26.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	92	393	347	88	80	309
Future Vol, veh/h	92	393	347	88	80	309
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	91	91	91	91	91	91
Heavy Vehicles, %	2	4	3	6	10	2
Mvmt Flow	101	432	381	97	88	340

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	896	381	0	0	381	0
Stage 1	381	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Critical Hdwy	6.42	6.24	-	-	4.2	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	-	-	2.29	-
Pot Cap-1 Maneuver	311	662	-	-	1135	-
Stage 1	691	-	-	-	-	-
Stage 2	600	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	281	662	-	-	1135	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	70.2	0	1.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	527	1135	-
HCM Lane V/C Ratio	-	-	1.011	0.077	-
HCM Control Delay (s)	-	-	70.2	8.4	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	14.5	0.3	-

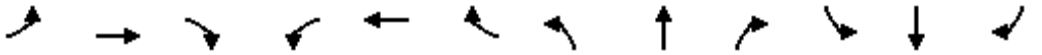
Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	117	23	67	94	33	68
Future Vol, veh/h	117	23	67	94	33	68
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	88	88	88	88	88	88
Heavy Vehicles, %	4	9	7	3	18	6
Mvmt Flow	133	26	76	107	38	77

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	159	0	405	146
Stage 1	-	-	-	-	146	-
Stage 2	-	-	-	-	259	-
Critical Hdwy	-	-	4.17	-	6.58	6.26
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.263	-	3.662	3.354
Pot Cap-1 Maneuver	-	-	1390	-	572	891
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1390	-	539	891
Mov Cap-2 Maneuver	-	-	-	-	539	-
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	705	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.2	10.8
HCM LOS			B

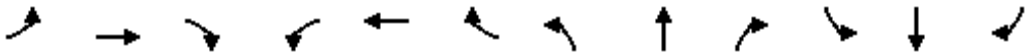
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	734	-	-	1390	-
HCM Lane V/C Ratio	0.156	-	-	0.055	-
HCM Control Delay (s)	10.8	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	172	81	206	179	21	147	278	154	28	595	110
Future Volume (veh/h)	62	172	81	206	179	21	147	278	154	28	595	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1743	1863	1743	1810	1727	1792	1810	1827	1863	1881
Adj Flow Rate, veh/h	66	183	86	219	190	22	156	296	164	30	633	117
Adj No. of Lanes	1	1	1	2	1	1	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	9	2	9	5	10	6	5	4	2	1
Cap, veh/h	85	308	255	317	374	323	192	858	878	41	719	617
Arrive On Green	0.05	0.17	0.17	0.09	0.21	0.21	0.12	0.48	0.48	0.02	0.39	0.39
Sat Flow, veh/h	1707	1792	1482	3442	1743	1505	1645	1792	1538	1740	1863	1599
Grp Volume(v), veh/h	66	183	86	219	190	22	156	296	164	30	633	117
Grp Sat Flow(s),veh/h/ln	1707	1792	1482	1721	1743	1505	1645	1792	1538	1740	1863	1599
Q Serve(g_s), s	3.3	8.1	4.4	5.3	8.2	1.0	7.9	8.8	4.4	1.5	27.1	4.2
Cycle Q Clear(g_c), s	3.3	8.1	4.4	5.3	8.2	1.0	7.9	8.8	4.4	1.5	27.1	4.2
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	85	308	255	317	374	323	192	858	878	41	719	617
V/C Ratio(X)	0.78	0.59	0.34	0.69	0.51	0.07	0.81	0.34	0.19	0.72	0.88	0.19
Avail Cap(c_a), veh/h	398	627	518	1003	711	614	479	858	878	406	760	652
HCM Platoon Ratio	1.00	1.00	1.00	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	40.3	32.7	31.2	37.7	29.7	26.9	36.9	13.9	8.8	41.6	24.5	17.5
Incr Delay (d2), s/veh	14.0	3.9	1.7	2.7	2.3	0.2	7.9	0.5	0.2	21.0	12.4	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	1.9	4.3	1.9	2.6	4.2	0.4	4.0	4.5	1.9	0.9	16.4	1.9
LnGrp Delay(d),s/veh	54.3	36.6	32.9	40.4	32.0	27.1	44.9	14.5	9.0	62.6	36.9	17.8
LnGrp LOS	D	D	C	D	C	C	D	B	A	E	D	B
Approach Vol, veh/h		335			431			616			780	
Approach Delay, s/veh		39.1			36.0			20.7			35.0	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	46.6	12.4	20.2	14.5	38.6	8.8	23.9
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	20.0	40.0	25.0	30.0	25.0	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s	3.5	10.8	7.3	10.1	9.9	29.1	5.3	10.2
Green Ext Time (p_c), s	0.0	15.9	0.7	4.7	0.3	4.0	0.1	5.1

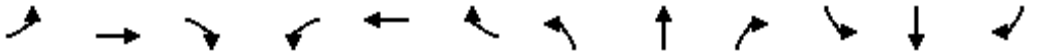
Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	104	104	0	91	0	503	50	127	755	1
Future Volume (vph)	0	0	104	104	0	91	0	503	50	127	755	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00		1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00		1.00	1.00	
Frt			0.86	1.00		0.85		0.99		1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)			1457	1766		1495		3371		1736	3539	
Flt Permitted			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (perm)			1457	1766		1495		3371		1736	3539	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	111	111	0	97	0	535	53	135	803	1
RTOR Reduction (vph)	0	0	93	0	0	81	0	8	0	0	0	0
Lane Group Flow (vph)	0	0	18	111	0	16	0	580	0	135	804	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Perm		Perm		NA		Prot	NA	
Protected Phases								6		5	2	
Permitted Phases			4	8		8						
Actuated Green, G (s)			7.7	7.7		7.7		20.4		5.9	30.3	
Effective Green, g (s)			7.7	7.7		7.7		20.4		5.9	30.3	
Actuated g/C Ratio			0.16	0.16		0.16		0.43		0.12	0.64	
Clearance Time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Vehicle Extension (s)			3.0	4.0		4.0		4.0		0.5	4.0	
Lane Grp Cap (vph)			236	286		242		1447		215	2257	
v/s Ratio Prot								c0.17		c0.08	0.23	
v/s Ratio Perm			0.01	c0.06		0.01						
v/c Ratio			0.08	0.39		0.06		0.40		0.63	0.36	
Uniform Delay, d1			16.9	17.8		16.9		9.3		19.8	4.0	
Progression Factor			1.00	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2			0.1	1.2		0.2		0.2		4.1	0.1	
Delay (s)			17.0	19.0		17.0		9.6		23.8	4.2	
Level of Service			B	B		B		A		C	A	
Approach Delay (s)		17.0			18.1			9.6			7.0	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	47.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	44.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	23	109	149	41	28	225	471	113	89	786	83
Future Volume (veh/h)	71	23	109	149	41	28	225	471	113	89	786	83
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1776	1881	1743	1845	1863
Adj Flow Rate, veh/h	74	24	114	155	43	29	234	491	118	93	819	86
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	1	9	3	2
Cap, veh/h	95	132	185	192	232	203	279	1820	862	119	1568	699
Arrive On Green	0.06	0.08	0.08	0.12	0.13	0.13	0.16	0.54	0.54	0.07	0.45	0.45
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	3374	1598	1660	3505	1562
Grp Volume(v), veh/h	74	24	114	155	43	29	234	491	118	93	819	86
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1687	1598	1660	1752	1562
Q Serve(g_s), s	3.8	1.1	3.9	7.9	1.9	1.5	11.5	6.8	3.2	4.8	14.5	2.8
Cycle Q Clear(g_c), s	3.8	1.1	3.9	7.9	1.9	1.5	11.5	6.8	3.2	4.8	14.5	2.8
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	95	132	185	192	232	203	279	1820	862	119	1568	699
V/C Ratio(X)	0.78	0.18	0.62	0.81	0.19	0.14	0.84	0.27	0.14	0.78	0.52	0.12
Avail Cap(c_a), veh/h	572	606	852	572	600	525	890	1954	925	385	2030	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	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	40.1	37.4	38.7	37.2	33.2	33.0	35.0	10.7	9.9	39.4	17.2	13.9
Incr Delay (d2), s/veh	12.9	0.7	3.3	7.8	0.4	0.3	6.6	0.2	0.2	10.7	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.6	1.4	4.0	0.9	0.6	5.9	3.2	1.4	2.5	7.1	1.2
LnGrp Delay(d),s/veh	53.0	38.1	42.0	45.0	33.5	33.3	41.6	10.9	10.0	50.1	17.8	14.1
LnGrp LOS	D	D	D	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		212			227			843			998	
Approach Delay, s/veh		45.4			41.3			19.3			20.5	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	51.6	14.1	10.5	18.1	43.6	9.0	15.6
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	6.8	8.8	9.9	5.9	13.5	16.5	5.8	3.9
Green Ext Time (p_c), s	0.2	25.3	0.4	0.9	0.7	22.1	0.2	0.9

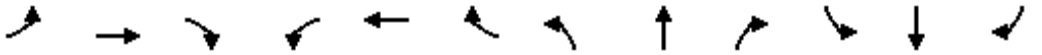
Intersection Summary	
HCM 2010 Ctrl Delay	24.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	64	609	64	226	76	620	145	0	1018	38
Future Volume (veh/h)	5	0	64	609	64	226	76	620	145	0	1018	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1759	1845	1812	1776	1827	1792	1681	0	1696	1900
Adj Flow Rate, veh/h	5	0	70	669	204	159	84	681	159	0	1119	42
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	8	3	2	7	4	6	13	0	12	0
Cap, veh/h	12	0	0	818	285	237	122	2597	758	0	1725	602
Arrive On Green	0.01	0.00	0.00	0.23	0.16	0.16	0.07	0.53	0.53	0.00	0.37	0.37
Sat Flow, veh/h	1810	5		3514	1812	1509	1740	4893	1429	0	4784	1615
Grp Volume(v), veh/h	5	31.7		669	204	159	84	681	159	0	1119	42
Grp Sat Flow(s),veh/h/ln	1810	C		1757	1812	1509	1740	1631	1429	0	1544	1615
Q Serve(g_s), s	0.1			8.6	5.1	4.7	2.3	3.6	2.8	0.0	9.6	0.8
Cycle Q Clear(g_c), s	0.1			8.6	5.1	4.7	2.3	3.6	2.8	0.0	9.6	0.8
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	12			818	285	237	122	2597	758	0	1725	602
V/C Ratio(X)	0.41			0.82	0.72	0.67	0.69	0.26	0.21	0.00	0.65	0.07
Avail Cap(c_a), veh/h	757			4372	1326	1105	1091	7081	2068	0	3389	1182
HCM Platoon Ratio	1.00			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
Uniform Delay (d), s/veh	23.7			17.4	19.1	19.0	21.7	6.1	5.9	0.0	12.4	9.7
Incr Delay (d2), s/veh	8.0			0.8	1.3	1.2	2.5	0.0	0.1	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
%ile BackOfQ(50%),veh/ln	0.1			4.3	2.6	2.0	1.2	1.6	1.1	0.0	4.1	0.4
LnGrp Delay(d),s/veh	31.7			18.2	20.4	20.2	24.3	6.1	6.0	0.0	12.6	9.7
LnGrp LOS	C			B	C	C	C	A	A		B	A
Approach Vol, veh/h					1032			924			1161	
Approach Delay, s/veh					18.9			7.8			12.5	
Approach LOS					B			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		31.1	15.5		7.6	23.5	4.4	12.3
Change Period (Y+Rc), s		5.7	4.4		* 4.2	5.7	4.1	4.8
Max Green Setting (Gmax), s		69.2	59.5		* 30	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s		5.6	10.6		4.3	11.6	2.1	7.1
Green Ext Time (p_c), s		6.8	0.5		0.0	6.3	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	94	183	39	0	94	0	757	20	172	1001	169
Future Volume (veh/h)	306	94	183	39	0	94	0	757	20	172	1001	169
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1845	1776	1845	0	1863	0	1667	1792	1863	1863	1743
Adj Flow Rate, veh/h	352	108	210	45	0	108	0	870	23	198	1151	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	7	3	7	3	0	2	0	14	6	2	2	9
Cap, veh/h	522	622	268	114	0	0	0	1805	480	320	1732	725
Arrive On Green	0.16	0.18	0.18	0.06	0.00	0.00	0.00	0.31	0.31	0.09	0.49	0.00
Sat Flow, veh/h	3281	3505	1509	1757	45		0	5967	1524	3442	3539	1482
Grp Volume(v), veh/h	352	108	210	45	23.4		0	870	23	198	1151	0
Grp Sat Flow(s),veh/h/ln	1640	1752	1509	1757	C		0	1433	1524	1721	1770	1482
Q Serve(g_s), s	5.1	1.3	6.7	1.2			0.0	6.2	0.5	2.8	12.4	0.0
Cycle Q Clear(g_c), s	5.1	1.3	6.7	1.2			0.0	6.2	0.5	2.8	12.4	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	522	622	268	114			0	1805	480	320	1732	725
V/C Ratio(X)	0.67	0.17	0.78	0.39			0.00	0.48	0.05	0.62	0.66	0.00
Avail Cap(c_a), veh/h	3259	2437	1049	1396			0	5125	1362	1709	5210	2181
HCM Platoon Ratio	1.00	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	0.00
Uniform Delay (d), s/veh	19.9	17.6	19.8	22.6			0.0	13.9	12.0	22.0	9.7	0.0
Incr Delay (d2), s/veh	1.1	0.0	1.9	0.8			0.0	0.1	0.0	0.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.6	2.9	0.6			0.0	2.4	0.2	1.4	6.0	0.0
LnGrp Delay(d),s/veh	21.1	17.6	21.7	23.4			0.0	14.0	12.0	22.7	9.9	0.0
LnGrp LOS	C	B	C	C				B	B	C	A	
Approach Vol, veh/h		670						893			1349	
Approach Delay, s/veh		20.7						14.0			11.8	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	8.8	21.5	7.0	13.0		30.3	12.1	
Change Period (Y+Rc), s	4.1	5.7	3.7	4.1		5.7	4.1	
Max Green Setting (Gmax), s	25.0	45.0	40.0	35.0		74.1	50.0	
Max Q Clear Time (g_c+I1), s	4.8	8.2	3.2	8.7		14.4	7.1	
Green Ext Time (p_c), s	0.1	7.7	0.0	0.4		7.9	1.0	

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	79	698	21	0	1223
Future Volume (Veh/h)	0	79	698	21	0	1223
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	0	98	862	26	0	1510
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			443			404
pX, platoon unblocked	0.76	0.97			0.97	
vC, conflicting volume	1631	230			889	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	868	24			707	
tC, single (s)	6.8	7.4			5.1	
tC, 2 stage (s)						
tF (s)	3.5	3.5			2.7	
p0 queue free %	100	90			100	
cM capacity (veh/h)	225	945			609	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	98	246	246	246	149	755	755
Volume Left	0	0	0	0	0	0	0
Volume Right	98	0	0	0	26	0	0
cSH	945	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.10	0.14	0.14	0.14	0.09	0.44	0.44
Queue Length 95th (ft)	9	0	0	0	0	0	0
Control Delay (s)	9.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						
Approach Delay (s)	9.2	0.0				0.0	
Approach LOS	A						

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	1	36	1	4	0	713	22	35	1185	3
Future Volume (veh/h)	2	0	1	36	1	4	0	713	22	35	1185	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1267	1900	1900	1597	1900	1520	1900	1792	1743	1387	1827	1429
Adj Flow Rate, veh/h	2	0	1	45	1	5	0	891	28	44	1481	4
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	50	0	0	19	0	25	0	6	9	37	4	33
Cap, veh/h	3	0	2	115	72	49	2	3332	1008	51	2686	939
Arrive On Green	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.68	0.68	0.04	0.77	0.77
Sat Flow, veh/h	1206	0	1615	2950	1900	1292	1810	4893	1481	1321	3471	1214
Grp Volume(v), veh/h	2	0	1	45	1	5	0	891	28	44	1481	4
Grp Sat Flow(s),veh/h/ln	1206	0	1615	1475	1900	1292	1810	1631	1481	1321	1736	1214
Q Serve(g_s), s	0.1	0.0	0.1	1.2	0.0	0.3	0.0	5.9	0.5	2.7	13.9	0.1
Cycle Q Clear(g_c), s	0.1	0.0	0.1	1.2	0.0	0.3	0.0	5.9	0.5	2.7	13.9	0.1
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	3	0	2	115	72	49	2	3332	1008	51	2686	939
V/C Ratio(X)	0.61	0.00	0.45	0.39	0.01	0.10	0.00	0.27	0.03	0.86	0.55	0.00
Avail Cap(c_a), veh/h	439	0	784	1074	922	627	659	3563	1078	962	3791	1325
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	0.0	41.1	38.6	38.2	38.3	0.0	5.1	4.3	39.4	3.7	2.1
Incr Delay (d2), s/veh	113.1	0.0	117.7	2.2	0.1	1.1	0.0	0.1	0.0	32.1	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	0.1	0.0	0.1	0.5	0.0	0.1	0.0	2.7	0.2	1.4	6.5	0.0
LnGrp Delay(d),s/veh	154.2	0.0	158.9	40.8	38.3	39.4	0.0	5.2	4.3	71.5	3.9	2.1
LnGrp LOS	F		F	D	D	D		A	A	E	A	A
Approach Vol, veh/h		3			51			919			1529	
Approach Delay, s/veh		155.7			40.6			5.2			5.8	
Approach LOS		F			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	61.9	7.7	5.1	0.0	69.6	4.7	8.1
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	60.0	60.0	30.0	40.0	30.0	90.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	4.7	7.9	3.2	2.1	0.0	15.9	2.1	2.3
Green Ext Time (p_c), s	0.1	37.8	0.1	0.0	0.0	47.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	8	73	683	1042	304
Future Volume (veh/h)	22	8	73	683	1042	304
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1900	1900	1810	1829	1900
Adj Flow Rate, veh/h	29	11	96	899	1371	400
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	5	0	0	5	5	5
Cap, veh/h	121	58	128	2896	2760	802
Arrive On Green	0.04	0.04	0.07	0.84	0.72	0.72
Sat Flow, veh/h	3343	1615	1810	3529	4008	1117
Grp Volume(v), veh/h	29	11	96	899	1187	584
Grp Sat Flow(s),veh/h/ln	1672	1615	1810	1719	1665	1631
Q Serve(g_s), s	0.7	0.6	4.4	4.7	13.1	13.2
Cycle Q Clear(g_c), s	0.7	0.6	4.4	4.7	13.1	13.2
Prop In Lane	1.00	1.00	1.00			0.68
Lane Grp Cap(c), veh/h	121	58	128	2896	2391	1171
V/C Ratio(X)	0.24	0.19	0.75	0.31	0.50	0.50
Avail Cap(c_a), veh/h	1595	770	863	4284	2391	1171
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	39.3	39.2	38.3	1.4	5.2	5.2
Incr Delay (d2), s/veh	1.0	1.5	8.6	0.1	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	2.5	2.2	6.0	6.0
LnGrp Delay(d),s/veh	40.3	40.8	46.9	1.5	5.4	5.6
LnGrp LOS	D	D	D	A	A	A
Approach Vol, veh/h	40			995	1771	
Approach Delay, s/veh	40.4			5.9	5.4	
Approach LOS	D			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		7.5	10.4	65.9				76.3
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		40.0	40.0	60.0				104.5
Max Q Clear Time (g_c+I1), s		2.7	6.4	15.2				6.7
Green Ext Time (p_c), s		0.1	0.3	36.4				63.9

Intersection Summary	
HCM 2010 Ctrl Delay	6.1
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	204	202	97	257	139	383	568	80	88	583	144
Future Volume (veh/h)	86	204	202	97	257	139	383	568	80	88	583	144
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1863	1845	1900	1863	1900	1881	1780	1900	1696	1827	1827
Adj Flow Rate, veh/h	104	246	243	117	310	167	461	684	96	106	702	173
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	6	2	3	0	2	2	1	7	7	12	4	4
Cap, veh/h	132	989	433	150	634	333	632	1109	155	133	1361	414
Arrive On Green	0.08	0.28	0.28	0.08	0.28	0.28	0.18	0.37	0.37	0.08	0.27	0.27
Sat Flow, veh/h	1707	3539	1551	1810	2226	1168	3476	2976	417	1616	4988	1518
Grp Volume(v), veh/h	104	246	243	117	245	232	461	388	392	106	702	173
Grp Sat Flow(s),veh/h/ln	1707	1770	1551	1810	1770	1624	1738	1691	1703	1616	1663	1518
Q Serve(g_s), s	6.2	5.6	13.9	6.6	11.9	12.4	13.0	19.4	19.4	6.7	12.4	9.7
Cycle Q Clear(g_c), s	6.2	5.6	13.9	6.6	11.9	12.4	13.0	19.4	19.4	6.7	12.4	9.7
Prop In Lane	1.00		1.00	1.00		0.72	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	132	989	433	150	504	463	632	630	634	133	1361	414
V/C Ratio(X)	0.79	0.25	0.56	0.78	0.49	0.50	0.73	0.62	0.62	0.80	0.52	0.42
Avail Cap(c_a), veh/h	494	1706	748	785	853	783	1341	630	634	467	2164	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)	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	47.0	28.9	31.9	46.6	30.8	31.0	40.0	26.5	26.5	46.8	31.9	30.9
Incr Delay (d2), s/veh	9.9	0.5	4.1	8.5	1.0	1.2	3.5	3.8	3.8	10.5	0.4	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	3.3	2.8	6.4	3.6	5.9	5.7	6.5	9.7	9.8	3.4	5.7	4.2
LnGrp Delay(d),s/veh	56.9	29.4	36.0	55.1	31.8	32.2	43.5	30.3	30.3	57.2	32.3	31.9
LnGrp LOS	E	C	D	E	C	C	D	C	C	E	C	C
Approach Vol, veh/h		593			594			1241			981	
Approach Delay, s/veh		36.9			36.5			35.2			35.0	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	43.6	12.6	35.0	22.8	33.3	12.0	35.5
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	30.0	30.0	45.0	50.0	40.0	45.0	30.0	50.0
Max Q Clear Time (g_c+I1), s	8.7	21.4	8.6	15.9	15.0	14.4	8.2	14.4
Green Ext Time (p_c), s	0.2	7.5	0.3	12.8	3.9	13.9	0.2	13.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	21	71	20	67	31	92	342	62	30	329	40
Future Volume (veh/h)	30	21	71	20	67	31	92	342	62	30	329	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1516	1484	1900	1721	1792	1712	1741	1900	1387	1776	1727
Adj Flow Rate, veh/h	33	23	78	22	74	34	101	376	68	33	362	44
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	33	33	28	9	9	6	11	7	7	37	7	10
Cap, veh/h	145	66	266	101	228	321	129	708	128	47	798	645
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.08	0.49	0.49	0.04	0.45	0.45
Sat Flow, veh/h	186	314	1259	88	1082	1520	1630	1435	260	1321	1776	1436
Grp Volume(v), veh/h	56	0	78	96	0	34	101	0	444	33	362	44
Grp Sat Flow(s),veh/h/ln	500	0	1259	1169	0	1520	1630	0	1695	1321	1776	1436
Q Serve(g_s), s	0.7	0.0	2.8	0.2	0.0	1.0	3.3	0.0	9.7	1.3	7.6	0.9
Cycle Q Clear(g_c), s	9.0	0.0	2.8	8.8	0.0	1.0	3.3	0.0	9.7	1.3	7.6	0.9
Prop In Lane	0.59		1.00	0.23		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	212	0	266	329	0	321	129	0	836	47	798	645
V/C Ratio(X)	0.26	0.00	0.29	0.29	0.00	0.11	0.78	0.00	0.53	0.70	0.45	0.07
Avail Cap(c_a), veh/h	625	0	702	870	0	847	909	0	1259	736	1650	1334
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	0.0	17.9	17.9	0.0	17.1	24.3	0.0	9.4	25.7	10.2	8.4
Incr Delay (d2), s/veh	0.8	0.0	0.7	0.6	0.0	0.2	11.2	0.0	1.4	19.6	1.1	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	0.8	0.0	1.0	1.2	0.0	0.4	1.9	0.0	4.8	0.7	4.0	0.4
LnGrp Delay(d),s/veh	19.5	0.0	18.6	18.4	0.0	17.3	35.5	0.0	10.8	45.3	11.4	8.5
LnGrp LOS	B		B	B		B	D		B	D	B	A
Approach Vol, veh/h		134			130			545			439	
Approach Delay, s/veh		19.0			18.1			15.4			13.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.0	32.1		16.2	8.4	29.7		16.2
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	30.0	40.0		30.0	30.0	50.0		30.0
Max Q Clear Time (g_c+I1), s	3.3	11.7		11.0	5.3	9.6		10.8
Green Ext Time (p_c), s	0.1	12.6		1.3	0.3	14.8		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	103	75	386	125	85	45	428	529	140	407	12
Future Volume (veh/h)	23	103	75	386	125	85	45	428	529	140	407	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1624	1881	1900	1845	1836	1863	1863	1792	1863	1827	1779	1900
Adj Flow Rate, veh/h	26	114	83	284	342	94	50	476	588	156	452	13
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	17	1	1	3	4	2	2	6	2	4	7	7
Cap, veh/h	147	194	130	391	408	350	65	1457	676	186	1669	48
Arrive On Green	0.10	0.10	0.10	0.22	0.22	0.22	0.04	0.43	0.43	0.11	0.50	0.50
Sat Flow, veh/h	1547	2036	1365	1757	1836	1573	1774	3406	1581	1740	3353	96
Grp Volume(v), veh/h	26	99	98	284	342	94	50	476	588	156	227	238
Grp Sat Flow(s),veh/h/ln	1547	1787	1615	1757	1836	1573	1774	1703	1581	1740	1690	1759
Q Serve(g_s), s	1.9	6.6	7.3	18.7	22.2	6.2	3.5	11.6	42.3	11.0	9.8	9.8
Cycle Q Clear(g_c), s	1.9	6.6	7.3	18.7	22.2	6.2	3.5	11.6	42.3	11.0	9.8	9.8
Prop In Lane	1.00		0.85	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	147	170	154	391	408	350	65	1457	676	186	841	876
V/C Ratio(X)	0.18	0.58	0.64	0.73	0.84	0.27	0.77	0.33	0.87	0.84	0.27	0.27
Avail Cap(c_a), veh/h	347	400	362	844	882	755	284	1635	759	487	841	876
HCM Platoon Ratio	1.00	1.00	1.00	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	52.0	54.1	54.5	45.1	46.4	40.2	59.7	23.8	32.6	54.8	18.2	18.2
Incr Delay (d2), s/veh	0.6	3.1	4.4	2.6	4.6	0.4	17.1	0.2	10.4	9.7	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	0.9	3.4	3.5	9.4	11.8	2.7	2.0	5.5	20.4	5.8	4.6	4.8
LnGrp Delay(d),s/veh	52.6	57.3	58.8	47.7	51.1	40.6	76.8	24.0	42.9	64.5	18.5	18.5
LnGrp LOS	D	E	E	D	D	D	E	C	D	E	B	B
Approach Vol, veh/h		223			720			1114			621	
Approach Delay, s/veh		57.4			48.4			36.3			30.0	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.3	58.4		16.9	8.6	67.2		32.3
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	35.0	60.0		28.0	20.0	60.0		60.0
Max Q Clear Time (g_c+I1), s	13.0	44.3		9.3	5.5	11.8		24.2
Green Ext Time (p_c), s	0.4	9.1		1.1	0.1	18.3		3.5

Intersection Summary	
HCM 2010 Ctrl Delay	39.9
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	749	13	17	604	525	12	16	6	257	11	90
Future Volume (veh/h)	132	749	13	17	604	525	12	16	6	257	11	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1882	1900	1792	1863	1827	1900	1675	1900	1759	1770	1776
Adj Flow Rate, veh/h	152	861	15	20	694	0	14	18	7	304	0	103
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	1	1	6	2	4	0	12	12	8	0	7
Cap, veh/h	180	1433	25	28	1110	487	527	335	130	441	0	197
Arrive On Green	0.10	0.40	0.40	0.02	0.31	0.00	0.29	0.29	0.29	0.13	0.00	0.13
Sat Flow, veh/h	1774	3595	63	1707	3539	1553	1810	1148	446	3351	0	1496
Grp Volume(v), veh/h	152	428	448	20	694	0	14	0	25	304	0	103
Grp Sat Flow(s),veh/h/ln	1774	1787	1870	1707	1770	1553	1810	0	1595	1675	0	1496
Q Serve(g_s), s	10.1	22.7	22.8	1.4	20.1	0.0	0.7	0.0	1.4	10.4	0.0	7.7
Cycle Q Clear(g_c), s	10.1	22.7	22.8	1.4	20.1	0.0	0.7	0.0	1.4	10.4	0.0	7.7
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	180	712	745	28	1110	487	527	0	465	441	0	197
V/C Ratio(X)	0.85	0.60	0.60	0.72	0.63	0.00	0.03	0.00	0.05	0.69	0.00	0.52
Avail Cap(c_a), veh/h	229	712	745	291	1326	582	527	0	465	976	0	436
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.1	28.6	28.6	58.8	35.2	0.0	30.4	0.0	30.6	49.8	0.0	48.7
Incr Delay (d2), s/veh	20.3	3.1	3.0	29.6	2.1	0.0	0.1	0.0	0.2	2.7	0.0	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	6.0	11.8	12.3	0.9	10.2	0.0	0.3	0.0	0.6	5.0	0.0	3.4
LnGrp Delay(d),s/veh	73.3	31.7	31.5	88.4	37.3	0.0	30.5	0.0	30.9	52.6	0.0	51.7
LnGrp LOS	E	C	C	F	D		C		C	D		D
Approach Vol, veh/h		1028			714			39			407	
Approach Delay, s/veh		37.8			38.8			30.7			52.3	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		40.0	6.4	52.9		20.8	16.7	42.7
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		35.0	20.5	45.0		35.0	15.5	45.0
Max Q Clear Time (g_c+I1), s		3.4	3.4	24.8		12.4	12.1	22.1
Green Ext Time (p_c), s		0.2	0.0	17.3		2.2	0.1	15.6

Intersection Summary	
HCM 2010 Ctrl Delay	40.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	653	429	352	1004	0	0	0	0	45	0	211
Future Volume (veh/h)	0	653	429	352	1004	0	0	0	0	45	0	211
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1810	1881	1845	0				1827	1827	1900
Adj Flow Rate, veh/h	0	734	482	396	1128	0				51	0	237
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	5	1	3	0				4	0	4
Cap, veh/h	0	1436	623	433	2499	0				313	0	280
Arrive On Green	0.00	0.41	0.41	0.24	0.71	0.00				0.18	0.00	0.18
Sat Flow, veh/h	0	3632	1535	1792	3597	0				1740	0	1553
Grp Volume(v), veh/h	0	734	482	396	1128	0				51	0	237
Grp Sat Flow(s),veh/h/ln	0	1770	1535	1792	1752	0				1740	0	1553
Q Serve(g_s), s	0.0	13.4	23.4	18.5	11.7	0.0				2.1	0.0	12.7
Cycle Q Clear(g_c), s	0.0	13.4	23.4	18.5	11.7	0.0				2.1	0.0	12.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1436	623	433	2499	0				313	0	280
V/C Ratio(X)	0.00	0.51	0.77	0.91	0.45	0.00				0.16	0.00	0.85
Avail Cap(c_a), veh/h	0	1436	623	521	2499	0				526	0	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.76	0.76	0.49	0.49	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.2	22.1	31.7	5.2	0.0				29.8	0.0	34.1
Incr Delay (d2), s/veh	0.0	1.0	7.0	9.7	0.3	0.0				0.1	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
%ile BackOfQ(50%),veh/ln	0.0	6.7	11.1	10.3	5.6	0.0				1.0	0.0	5.7
LnGrp Delay(d),s/veh	0.0	20.1	29.2	41.4	5.5	0.0				29.9	0.0	37.2
LnGrp LOS		C	C	D	A					C		D
Approach Vol, veh/h		1216			1524						288	
Approach Delay, s/veh		23.7			14.8						35.9	
Approach LOS		C			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	26.4	40.0		19.6		66.4		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	25.0	20.4		26.0		51.0		
Max Q Clear Time (g_c+I1), s	20.5	25.4		14.7		13.7		
Green Ext Time (p_c), s	0.3	0.0		0.8		14.7		

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	522	0	0	733	54	623	2	834	0	0	0
Future Volume (veh/h)	176	522	0	0	733	54	623	2	834	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1863	0	0	1863	1900	1845	1873	1881			
Adj Flow Rate, veh/h	196	580	0	0	814	60	1018	0	580			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	3	2	0	0	2	2	3	0	1			
Cap, veh/h	232	1844	0	0	1167	86	1331	0	606			
Arrive On Green	0.13	0.52	0.00	0.00	0.35	0.35	0.38	0.00	0.38			
Sat Flow, veh/h	1757	3632	0	0	3436	246	3514	0	1599			
Grp Volume(v), veh/h	196	580	0	0	431	443	1018	0	580			
Grp Sat Flow(s),veh/h/ln	1757	1770	0	0	1770	1819	1757	0	1599			
Q Serve(g_s), s	9.5	8.2	0.0	0.0	18.2	18.2	22.0	0.0	30.8			
Cycle Q Clear(g_c), s	9.5	8.2	0.0	0.0	18.2	18.2	22.0	0.0	30.8			
Prop In Lane	1.00		0.00	0.00		0.14	1.00		1.00			
Lane Grp Cap(c), veh/h	232	1844	0	0	618	635	1331	0	606			
V/C Ratio(X)	0.85	0.31	0.00	0.00	0.70	0.70	0.76	0.00	0.96			
Avail Cap(c_a), veh/h	303	1844	0	0	618	635	1333	0	607			
HCM Platoon Ratio	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	0.00	0.00	0.92	0.92	1.00	0.00	1.00			
Uniform Delay (d), s/veh	36.9	11.9	0.0	0.0	24.4	24.4	23.6	0.0	26.3			
Incr Delay (d2), s/veh	11.2	0.4	0.0	0.0	6.0	5.8	2.9	0.0	26.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.3	4.0	0.0	0.0	9.9	10.1	11.1	0.0	18.0			
LnGrp Delay(d),s/veh	48.1	12.3	0.0	0.0	30.3	30.2	26.5	0.0	52.7			
LnGrp LOS	D	B			C	C	C		D			
Approach Vol, veh/h		776			874			1598				
Approach Delay, s/veh		21.3			30.2			36.0				
Approach LOS		C			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		49.9			15.0	35.0		37.1
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		45.0			15.0	26.5		33.0
Max Q Clear Time (g_c+I1), s		10.2			11.5	20.2		32.8
Green Ext Time (p_c), s		7.7			0.1	3.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	31.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	1261	61	10	646	0	140	0	25	0	0	0
Future Volume (veh/h)	49	1261	61	10	646	0	140	0	25	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1873	1900	1583	1863	0	1845	0	1638			
Adj Flow Rate, veh/h	56	1449	70	11	743	0	161	0	29			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	1	1	20	2	0	3	0	16			
Cap, veh/h	101	2364	114	17	2264	0	211	0	167			
Arrive On Green	0.06	0.68	0.68	0.01	0.64	0.00	0.12	0.00	0.12			
Sat Flow, veh/h	1810	3453	166	1508	3632	0	1757	0	1392			
Grp Volume(v), veh/h	56	745	774	11	743	0	161	0	29			
Grp Sat Flow(s),veh/h/ln	1810	1780	1839	1508	1770	0	1757	0	1392			
Q Serve(g_s), s	2.2	16.6	16.8	0.5	7.0	0.0	6.5	0.0	1.4			
Cycle Q Clear(g_c), s	2.2	16.6	16.8	0.5	7.0	0.0	6.5	0.0	1.4			
Prop In Lane	1.00		0.09	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	101	1218	1259	17	2264	0	211	0	167			
V/C Ratio(X)	0.56	0.61	0.61	0.67	0.33	0.00	0.76	0.00	0.17			
Avail Cap(c_a), veh/h	619	1218	1259	516	2420	0	601	0	476			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.6	6.3	6.3	36.0	6.0	0.0	31.2	0.0	28.9			
Incr Delay (d2), s/veh	4.7	1.6	1.6	37.6	0.2	0.0	5.7	0.0	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			
%ile BackOfQ(50%),veh/ln	1.2	8.6	8.9	0.4	3.5	0.0	3.5	0.0	0.5			
LnGrp Delay(d),s/veh	38.3	7.8	7.8	73.6	6.2	0.0	36.9	0.0	29.4			
LnGrp LOS	D	A	A	E	A		D		C			
Approach Vol, veh/h		1575			754			190				
Approach Delay, s/veh		8.9			7.2			35.7				
Approach LOS		A			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	4.8	55.1			8.1	51.8		13.3
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	25.0	50.0			25.0	50.0		25.0
Max Q Clear Time (g_c+I1), s	2.5	18.8			4.2	9.0		8.5
Green Ext Time (p_c), s	0.0	29.4			0.1	37.8		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	16	553	958	4
Future Vol, veh/h	0	0	16	553	958	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	135	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	17	582	1008	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	506	1013	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	517	692	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	517	692	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	692	-	-	-	-
HCM Lane V/C Ratio	0.024	-	-	-	-
HCM Control Delay (s)	10.3	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	49	45	65	149	231	79
Future Vol, veh/h	49	45	65	149	231	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	370	-	220	-	-	-
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	53	49	71	162	251	86

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	516	168	337	0	-	0
Stage 1	294	-	-	-	-	-
Stage 2	222	-	-	-	-	-
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	489	847	1219	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	794	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	461	847	1219	-	-	-
Mov Cap-2 Maneuver	461	-	-	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1219	-	461	847	-	-
HCM Lane V/C Ratio	0.058	-	0.116	0.058	-	-
HCM Control Delay (s)	8.1	-	13.8	9.5	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	524	694	39	12	398	135	151	13	17	12	4	63
Future Volume (veh/h)	524	694	39	12	398	135	151	13	17	12	4	63
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	570	754	42	13	433	147	164	14	18	13	4	68
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	599	1295	72	422	758	255	210	88	113	81	25	94
Arrive On Green	0.34	0.38	0.38	0.24	0.29	0.29	0.12	0.12	0.12	0.06	0.06	0.06
Sat Flow, veh/h	1774	3409	190	1774	2602	875	1774	741	953	1372	422	1583
Grp Volume(v), veh/h	570	391	405	13	293	287	164	0	32	17	0	68
Grp Sat Flow(s),veh/h/ln	1774	1770	1829	1774	1770	1708	1774	0	1695	1794	0	1583
Q Serve(g_s), s	27.5	15.5	15.5	0.5	12.4	12.6	7.9	0.0	1.5	0.8	0.0	3.7
Cycle Q Clear(g_c), s	27.5	15.5	15.5	0.5	12.4	12.6	7.9	0.0	1.5	0.8	0.0	3.7
Prop In Lane	1.00		0.10	1.00		0.51	1.00		0.56	0.76		1.00
Lane Grp Cap(c), veh/h	599	672	695	422	515	497	210	0	200	106	0	94
V/C Ratio(X)	0.95	0.58	0.58	0.03	0.57	0.58	0.78	0.00	0.16	0.16	0.00	0.72
Avail Cap(c_a), veh/h	606	1209	1250	606	1209	1167	606	0	579	613	0	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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.4	21.7	21.7	25.7	26.4	26.5	37.6	0.0	34.8	39.2	0.0	40.6
Incr Delay (d2), s/veh	24.9	2.9	2.8	0.0	3.6	3.8	6.3	0.0	0.4	0.7	0.0	10.1
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	17.6	8.0	8.3	0.2	6.5	6.4	4.2	0.0	0.7	0.4	0.0	1.9
LnGrp Delay(d),s/veh	53.3	24.6	24.5	25.7	30.0	30.3	43.9	0.0	35.2	39.9	0.0	50.7
LnGrp LOS	D	C	C	C	C	C	D		D	D		D
Approach Vol, veh/h		1366			593			196			85	
Approach Delay, s/veh		36.5			30.1			42.5			48.5	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.9	38.4		14.4	33.7	30.6		9.2
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	30.0	* 60		30.0	30.0	60.0		30.0
Max Q Clear Time (g_c+I1), s	2.5	17.5		9.9	29.5	14.6		5.7
Green Ext Time (p_c), s	9.2	15.9		0.6	0.1	11.0		0.2

Intersection Summary		
HCM 2010 Ctrl Delay		35.8
HCM 2010 LOS		D

Notes

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	0	250	491	144	228	0	210	0	45	1	0	1
Future Vol, veh/h	0	250	491	144	228	0	210	0	45	1	0	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	13	5	7	13	0	9	0	4	0	0	0
Mvmt Flow	0	278	546	160	253	0	233	0	50	1	0	1
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	27.7	15.3	17.8	11.2
HCM LOS	D	C	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	0%	100%	0%	50%
Vol Thru, %	0%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	100%	0%	100%	0%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	45	250	491	144	228	2
LT Vol	210	0	0	0	144	0	1
Through Vol	0	0	250	0	0	228	0
RT Vol	0	45	0	491	0	0	1
Lane Flow Rate	233	50	278	546	160	253	2
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.522	0.093	0.504	0.861	0.327	0.49	0.005
Departure Headway (Hd)	8.056	6.674	6.53	5.68	7.367	6.961	8.187
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	446	534	550	633	485	514	440
Service Time	5.833	4.45	4.303	3.452	5.153	4.747	6.187
HCM Lane V/C Ratio	0.522	0.094	0.505	0.863	0.33	0.492	0.005
HCM Control Delay	19.4	10.1	15.8	33.8	13.7	16.3	11.2
HCM Lane LOS	C	B	C	D	B	C	B
HCM 95th-tile Q	2.9	0.3	2.8	9.8	1.4	2.7	0

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	74	292	3	98	778
Future Vol, veh/h	1	74	292	3	98	778
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	9	0	1	3
Mvmt Flow	1	81	321	3	108	855

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1393	323	0	0	324	0
Stage 1	323	-	-	-	-	-
Stage 2	1070	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	158	723	-	-	1241	-
Stage 1	738	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	144	723	-	-	1241	-
Mov Cap-2 Maneuver	144	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	303	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	686	1241	-
HCM Lane V/C Ratio	-	-	0.12	0.087	-
HCM Control Delay (s)	-	-	11	8.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.3	-

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	1	1	1	33	2	3	2	292	25	3	789	2
Future Vol, veh/h	1	1	1	33	2	3	2	292	25	3	789	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	-	-	30	-	-	30	105	-	210	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	1	1	1	39	2	4	2	344	29	4	928	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1285	1284	929	1285	1286	344	931	0	0	344	0	0
Stage 1	936	936	-	348	348	-	-	-	-	-	-	-
Stage 2	349	348	-	937	938	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	143	166	327	143	166	703	743	-	-	1226	-	-
Stage 1	321	346	-	672	638	-	-	-	-	-	-	-
Stage 2	671	638	-	320	346	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	140	165	327	141	165	703	743	-	-	1226	-	-
Mov Cap-2 Maneuver	140	165	-	141	165	-	-	-	-	-	-	-
Stage 1	320	345	-	670	636	-	-	-	-	-	-	-
Stage 2	663	636	-	317	345	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.8	38	0.1	0
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	743	-	-	151	327	142	703	1226	-	-
HCM Lane V/C Ratio	0.003	-	-	0.016	0.004	0.29	0.005	0.003	-	-
HCM Control Delay (s)	9.9	-	-	29.2	16	40.4	10.1	7.9	-	-
HCM Lane LOS	A	-	-	D	C	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	1.1	0	0	-	-

Intersection	
Intersection Delay, s/veh	21.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	97	22	179	103	26	10	80	156	24	5	279	99
Future Vol, veh/h	97	22	179	103	26	10	80	156	24	5	279	99
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	4	9	6	0	0	0	5	8	4	0	3	8
Mvmt Flow	120	27	221	127	32	12	99	193	30	6	344	122
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	17	18.9	18.4	27.7
HCM LOS	C	C	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	82%	0%	74%	100%	0%	0%
Vol Thru, %	0%	87%	18%	0%	19%	0%	100%	0%
Vol Right, %	0%	13%	0%	100%	7%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	180	119	179	139	5	279	99
LT Vol	80	0	97	0	103	5	0	0
Through Vol	0	156	22	0	26	0	279	0
RT Vol	0	24	0	179	10	0	0	99
Lane Flow Rate	99	222	147	221	172	6	344	122
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.247	0.521	0.359	0.476	0.437	0.015	0.773	0.253
Departure Headway (Hd)	9.01	8.447	8.806	7.757	9.176	8.546	8.084	7.451
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	399	427	408	464	393	421	451	485
Service Time	6.762	6.199	6.557	5.508	6.933	6.246	5.784	5.151
HCM Lane V/C Ratio	0.248	0.52	0.36	0.476	0.438	0.014	0.763	0.252
HCM Control Delay	14.7	20.1	16.4	17.4	18.9	11.4	33.3	12.7
HCM Lane LOS	B	C	C	C	C	B	D	B
HCM 95th-tile Q	1	2.9	1.6	2.5	2.2	0	6.7	1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	17	270	579	0
Future Vol, veh/h	0	9	17	270	579	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	0	12	23	365	782	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1193	782	782	0	-	0
Stage 1	782	-	-	-	-	-
Stage 2	411	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	208	397	845	-	-	-
Stage 1	454	-	-	-	-	-
Stage 2	674	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	202	397	845	-	-	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	454	-	-	-	-	-
Stage 2	656	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	845	-	397	-	-
HCM Lane V/C Ratio	0.027	-	0.031	-	-
HCM Control Delay (s)	9.4	-	14.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	44.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	78	114	173	108	242	346
Future Vol, veh/h	78	114	173	108	242	346
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	4	2	5	4
Mvmt Flow	110	161	244	152	341	487

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1489	320	0	0	396	0
Stage 1	320	-	-	-	-	-
Stage 2	1169	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245	-
Pot Cap-1 Maneuver	138	725	-	-	1146	-
Stage 1	741	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 97	725	-	-	1146	-
Mov Cap-2 Maneuver	~ 97	-	-	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	209	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	233.5	0	3.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	200	1146	-
HCM Lane V/C Ratio	-	-	1.352	0.297	-
HCM Control Delay (s)	-	-	233.5	9.5	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	15.4	1.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	67	234	113	150	329
Future Vol, veh/h	30	67	234	113	150	329
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	0	0	3	1	0	2
Mvmt Flow	50	112	390	188	250	548

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1532	484	0	0	578	0
Stage 1	484	-	-	-	-	-
Stage 2	1048	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	130	587	-	-	1006	-
Stage 1	624	-	-	-	-	-
Stage 2	341	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	98	587	-	-	1006	-
Mov Cap-2 Maneuver	98	-	-	-	-	-
Stage 1	624	-	-	-	-	-
Stage 2	256	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	31.9	0	3.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	98	587	1006	-
HCM Lane V/C Ratio	-	-	0.51	0.19	0.249	-
HCM Control Delay (s)	-	-	75	12.6	9.8	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	2.3	0.7	1	-

Intersection	
Int Delay, s/veh	64.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	3	127	0	103	3	244	129	109	246	4
Future Vol, veh/h	0	0	3	127	0	103	3	244	129	109	246	4
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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	2	0
Mvmt Flow	0	0	4	187	0	151	4	359	190	160	362	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1223	1242	365	1151	1151	454	368	0	0	549	0	0
Stage 1	685	685	-	463	463	-	-	-	-	-	-	-
Stage 2	538	557	-	688	688	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	158	176	685	~ 177	200	610	1202	-	-	1031	-	-
Stage 1	441	451	-	583	568	-	-	-	-	-	-	-
Stage 2	531	515	-	440	450	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	104	148	685	~ 155	168	610	1202	-	-	1031	-	-
Mov Cap-2 Maneuver	104	148	-	~ 155	168	-	-	-	-	-	-	-
Stage 1	440	381	-	581	566	-	-	-	-	-	-	-
Stage 2	398	513	-	369	380	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	265	0.1	2.8
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1202	-	-	685	233	1031	-	-
HCM Lane V/C Ratio	0.004	-	-	0.006	1.452	0.155	-	-
HCM Control Delay (s)	8	-	-	10.3	265	9.1	-	-
HCM Lane LOS	A	-	-	B	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	19.6	0.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	161	60	316	304	111	265
Future Vol, veh/h	161	60	316	304	111	265
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	3	1	1	2
Mvmt Flow	218	81	427	411	150	358

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1290	632	0	0	838	0
Stage 1	632	-	-	-	-	-
Stage 2	658	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	~ 182	484	-	-	801	-
Stage 1	534	-	-	-	-	-
Stage 2	519	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 148	484	-	-	801	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	534	-	-	-	-	-
Stage 2	422	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	40.9	0	3.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	281	484	801	-
HCM Lane V/C Ratio	-	-	0.774	0.168	0.187	-
HCM Control Delay (s)	-	-	50.9	13.9	10.5	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	5.9	0.6	0.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	37	55	602	446	0
Future Vol, veh/h	1	37	55	602	446	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	19	9	3	3	0
Mvmt Flow	1	50	74	814	603	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1565	603	603	0	-	0
Stage 1	603	-	-	-	-	-
Stage 2	962	-	-	-	-	-
Critical Hdwy	6.4	6.39	4.19	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.471	2.281	-	-	-
Pot Cap-1 Maneuver	124	469	941	-	-	-
Stage 1	550	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	114	469	941	-	-	-
Mov Cap-2 Maneuver	242	-	-	-	-	-
Stage 1	550	-	-	-	-	-
Stage 2	345	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	941	-	458	-	-
HCM Lane V/C Ratio	0.079	-	0.112	-	-
HCM Control Delay (s)	9.2	-	13.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.4	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	183	1	1	15	127	678	5	22	594	20
Future Vol, veh/h	0	0	183	1	1	15	127	678	5	22	594	20
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	2	0	0	7	3	4	0	0	6	20
Mvmt Flow	0	0	193	1	1	16	134	714	5	23	625	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	625	1656	1656	716	625	0	0	719	0	0
Stage 1	-	-	-	984	984	-	-	-	-	-	-	-
Stage 2	-	-	-	672	672	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.1	6.5	6.27	4.13	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.5	4	3.363	2.227	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	485	79	99	422	952	-	-	892	-	-
Stage 1	0	0	-	302	329	-	-	-	-	-	-	-
Stage 2	0	0	-	449	458	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	485	42	83	422	952	-	-	892	-	-
Mov Cap-2 Maneuver	-	-	-	42	83	-	-	-	-	-	-	-
Stage 1	-	-	-	259	283	-	-	-	-	-	-	-
Stage 2	-	-	-	264	446	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.2	21.4	1.5	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	952	-	-	485	238	892	-	-
HCM Lane V/C Ratio	0.14	-	-	0.397	0.075	0.026	-	-
HCM Control Delay (s)	9.4	-	-	17.2	21.4	9.1	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	1.9	0.2	0.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	118	343	112	99	49	284	325	146	48	262	81
Future Volume (veh/h)	59	118	343	112	99	49	284	325	146	48	262	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1827	1845	1827	1815	1900	1759	1845	1845	1863	1826	1900
Adj Flow Rate, veh/h	66	133	385	126	111	55	319	365	164	54	294	91
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	4	3	4	6	6	8	3	3	2	5	5
Cap, veh/h	474	502	422	244	160	79	356	653	547	70	454	137
Arrive On Green	0.27	0.27	0.27	0.14	0.14	0.14	0.21	0.35	0.35	0.04	0.18	0.18
Sat Flow, veh/h	1723	1827	1534	1740	1139	565	1675	1845	1544	1774	2590	781
Grp Volume(v), veh/h	66	133	385	126	0	166	319	365	164	54	194	191
Grp Sat Flow(s),veh/h/ln	1723	1827	1534	1740	0	1704	1675	1845	1544	1774	1735	1637
Q Serve(g_s), s	2.6	5.2	22.2	6.1	0.0	8.5	16.9	14.6	7.0	2.8	9.5	9.9
Cycle Q Clear(g_c), s	2.6	5.2	22.2	6.1	0.0	8.5	16.9	14.6	7.0	2.8	9.5	9.9
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	474	502	422	244	0	239	356	653	547	70	304	287
V/C Ratio(X)	0.14	0.26	0.91	0.52	0.00	0.69	0.90	0.56	0.30	0.78	0.64	0.66
Avail Cap(c_a), veh/h	527	559	470	533	0	522	458	807	675	495	758	716
HCM Platoon Ratio	1.00	1.00	1.00	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	25.0	25.9	32.1	36.4	0.0	37.4	35.0	23.8	21.3	43.5	35.0	35.2
Incr Delay (d2), s/veh	0.0	0.1	19.9	0.6	0.0	1.4	16.7	0.3	0.1	6.7	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	1.3	2.6	11.7	3.0	0.0	4.1	9.5	7.5	3.0	1.5	4.6	4.6
LnGrp Delay(d),s/veh	25.1	26.0	52.0	37.1	0.0	38.8	51.7	24.1	21.5	50.3	35.9	36.2
LnGrp LOS	C	C	D	D		D	D	C	C	D	D	D
Approach Vol, veh/h		584			292			848			439	
Approach Delay, s/veh		43.0			38.0			34.0			37.8	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	37.9		29.1	24.0	21.5		16.9
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	25.5	40.0		28.0	25.0	40.0		28.0
Max Q Clear Time (g_c+I1), s	4.8	16.6		24.2	18.9	11.9		10.5
Green Ext Time (p_c), s	0.0	3.4		0.6	0.5	3.5		0.7

Intersection Summary		
HCM 2010 Ctrl Delay		37.7
HCM 2010 LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	27	16	71	14	450	22	435	80	388	454	12
Future Volume (veh/h)	11	27	16	71	14	450	22	435	80	388	454	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1839	1845	1900	1845	1827	1863	1864	1900
Adj Flow Rate, veh/h	12	29	17	76	15	479	23	463	85	413	483	13
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	3	0	3	4	2	2	2
Cap, veh/h	113	245	122	398	70	773	28	608	506	417	991	27
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.02	0.33	0.33	0.23	0.55	0.55
Sat Flow, veh/h	192	946	472	1162	270	1562	1810	1845	1534	1774	1805	49
Grp Volume(v), veh/h	58	0	0	91	0	479	23	463	85	413	0	496
Grp Sat Flow(s),veh/h/ln	1609	0	0	1432	0	1562	1810	1845	1534	1774	0	1853
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	15.2	0.9	15.3	2.7	15.8	0.0	11.2
Cycle Q Clear(g_c), s	1.7	0.0	0.0	3.0	0.0	15.2	0.9	15.3	2.7	15.8	0.0	11.2
Prop In Lane	0.21		0.29	0.84		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	481	0	0	468	0	773	28	608	506	417	0	1018
V/C Ratio(X)	0.12	0.00	0.00	0.19	0.00	0.62	0.82	0.76	0.17	0.99	0.00	0.49
Avail Cap(c_a), veh/h	532	0	0	486	0	793	425	975	811	417	0	1018
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.3	0.0	0.0	19.7	0.0	12.6	33.4	20.4	16.2	26.0	0.0	9.5
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	1.4	18.8	2.0	0.2	41.5	0.0	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	0.9	0.0	0.0	1.4	0.0	6.8	0.6	8.1	1.2	12.5	0.0	5.8
LnGrp Delay(d),s/veh	19.4	0.0	0.0	19.9	0.0	14.0	52.2	22.4	16.4	67.5	0.0	9.8
LnGrp LOS	B			B		B	D	C	B	E		A
Approach Vol, veh/h		58			570			571			909	
Approach Delay, s/veh		19.4			14.9			22.7			36.0	
Approach LOS		B			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.0	26.5		21.6	5.1	41.4		21.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	16.0	36.0		20.0	16.0	36.0		18.5
Max Q Clear Time (g_c+I1), s	17.8	17.3		3.7	2.9	13.2		17.2
Green Ext Time (p_c), s	0.0	5.2		2.5	0.0	7.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	49	76	105	35	60	105	444	126	46	191	333
Future Volume (veh/h)	59	49	76	105	35	60	105	444	126	46	191	333
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1869	1900	1881	1876	1900	1827	1853	1900	1900	1845	1863
Adj Flow Rate, veh/h	63	52	81	112	37	64	112	472	134	49	203	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	0	0	4	3	3	0	3	2
Cap, veh/h	136	112	220	250	86	149	158	816	230	96	486	417
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.09	0.30	0.30	0.05	0.26	0.00
Sat Flow, veh/h	997	823	1615	1792	618	1069	1740	2713	765	1810	1845	1583
Grp Volume(v), veh/h	115	0	81	112	0	101	112	305	301	49	203	0
Grp Sat Flow(s),veh/h/ln	1819	0	1615	1792	0	1688	1740	1760	1718	1810	1845	1583
Q Serve(g_s), s	2.3	0.0	1.8	2.2	0.0	2.1	2.4	5.7	5.7	1.0	3.5	0.0
Cycle Q Clear(g_c), s	2.3	0.0	1.8	2.2	0.0	2.1	2.4	5.7	5.7	1.0	3.5	0.0
Prop In Lane	0.55		1.00	1.00		0.63	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	248	0	220	250	0	235	158	529	517	96	486	417
V/C Ratio(X)	0.46	0.00	0.37	0.45	0.00	0.43	0.71	0.58	0.58	0.51	0.42	0.00
Avail Cap(c_a), veh/h	1413	0	1255	1160	0	1092	901	1823	1779	937	1911	1640
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	15.4	0.0	15.2	15.2	0.0	15.2	17.1	11.4	11.4	17.8	11.8	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.4	0.5	0.0	0.5	2.2	0.5	0.6	1.6	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	1.2	0.0	0.8	1.1	0.0	1.0	1.2	2.8	2.8	0.5	1.8	0.0
LnGrp Delay(d),s/veh	15.9	0.0	15.5	15.7	0.0	15.7	19.3	12.0	12.0	19.4	12.1	0.0
LnGrp LOS	B		B	B		B	B	B	B	B	B	
Approach Vol, veh/h		196			213			718			252	
Approach Delay, s/veh		15.7			15.7			13.1			13.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	15.3		8.8	6.5	13.9		9.5
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	20.0	40.0		30.0	20.0	40.0		25.0
Max Q Clear Time (g_c+I1), s	3.0	7.7		4.3	4.4	5.5		4.2
Green Ext Time (p_c), s	0.0	3.9		0.5	0.1	3.9		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	30.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	122	426	249	88	123	249
Future Vol, veh/h	122	426	249	88	123	249
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	93	93	93	93	93	93
Heavy Vehicles, %	1	3	3	2	4	1
Mvmt Flow	131	458	268	95	132	268

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	800	268	0	0	268	0
Stage 1	268	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Critical Hdwy	6.41	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	356	768	-	-	1284	-
Stage 1	779	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	313	768	-	-	1284	-
Mov Cap-2 Maneuver	313	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	519	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	68.2	0	2.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	580	1284	-
HCM Lane V/C Ratio	-	-	1.016	0.103	-
HCM Control Delay (s)	-	-	68.2	8.1	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	15.5	0.3	-

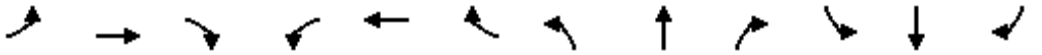
Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	118	29	51	127	41	82
Future Vol, veh/h	118	29	51	127	41	82
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, %	1	3	2	6	5	4
Mvmt Flow	128	32	55	138	45	89

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	160	0	393	144
Stage 1	-	-	-	-	144	-
Stage 2	-	-	-	-	249	-
Critical Hdwy	-	-	4.12	-	6.45	6.24
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.336
Pot Cap-1 Maneuver	-	-	1419	-	606	898
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	785	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1419	-	581	898
Mov Cap-2 Maneuver	-	-	-	-	581	-
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	752	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	10.7
HCM LOS			B

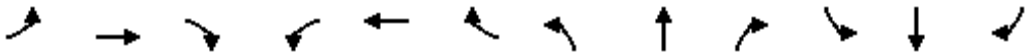
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	760	-	-	1419	-
HCM Lane V/C Ratio	0.176	-	-	0.039	-
HCM Control Delay (s)	10.7	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	265	148	266	273	44	116	667	240	23	431	96
Future Volume (veh/h)	113	265	148	266	273	44	116	667	240	23	431	96
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1827	1845	1845	1863	1810	1810	1881	1845	1743	1863	1810
Adj Flow Rate, veh/h	127	298	166	299	307	49	130	749	270	26	484	108
Adj No. of Lanes	1	1	1	2	1	1	1	1	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	1	4	3	3	2	5	5	1	3	9	2	5
Cap, veh/h	160	434	372	393	490	396	163	787	836	35	642	530
Arrive On Green	0.09	0.24	0.24	0.12	0.26	0.26	0.09	0.42	0.42	0.02	0.34	0.34
Sat Flow, veh/h	1792	1827	1568	3408	1863	1505	1723	1881	1568	1660	1863	1538
Grp Volume(v), veh/h	127	298	166	299	307	49	130	749	270	26	484	108
Grp Sat Flow(s),veh/h/ln	1792	1827	1568	1704	1863	1505	1723	1881	1568	1660	1863	1538
Q Serve(g_s), s	6.7	14.3	8.7	8.2	14.0	2.4	7.1	37.0	9.3	1.5	22.1	4.8
Cycle Q Clear(g_c), s	6.7	14.3	8.7	8.2	14.0	2.4	7.1	37.0	9.3	1.5	22.1	4.8
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	160	434	372	393	490	396	163	787	836	35	642	530
V/C Ratio(X)	0.79	0.69	0.45	0.76	0.63	0.12	0.80	0.95	0.32	0.75	0.75	0.20
Avail Cap(c_a), veh/h	373	571	490	887	679	549	449	787	836	346	679	561
HCM Platoon Ratio	1.00	1.00	1.00	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	42.8	33.4	31.2	41.2	31.2	26.9	42.6	27.0	12.6	46.8	27.9	22.2
Incr Delay (d2), s/veh	8.5	4.3	1.8	3.1	2.8	0.3	8.6	21.6	0.5	27.3	5.7	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	3.7	7.7	3.9	4.0	7.5	1.0	3.8	23.9	4.1	0.9	12.3	2.1
LnGrp Delay(d),s/veh	51.3	37.7	33.0	44.3	34.0	27.2	51.2	48.6	13.1	74.1	33.5	22.6
LnGrp LOS	D	D	C	D	C	C	D	D	B	E	C	C
Approach Vol, veh/h		591			655			1149			618	
Approach Delay, s/veh		39.3			38.2			40.5			33.3	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	45.7	15.6	28.3	13.6	38.6	13.1	30.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	20.0	40.0	25.0	30.0	25.0	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s	3.5	39.0	10.2	16.3	9.1	24.1	8.7	16.0
Green Ext Time (p_c), s	0.0	1.0	0.9	6.5	0.3	9.0	0.2	8.0

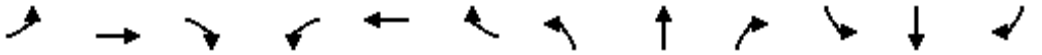
Intersection Summary	
HCM 2010 Ctrl Delay	38.3
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	142	112	0	106	0	919	116	99	746	0
Future Volume (vph)	0	0	142	112	0	106	0	919	116	99	746	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00		1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00		1.00	1.00	
Frt			0.86	1.00		0.85		0.98		1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)			1601	1765		1553		3487		1787	3539	
Flt Permitted			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (perm)			1601	1765		1553		3487		1787	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	148	117	0	110	0	957	121	103	777	0
RTOR Reduction (vph)	0	0	127	0	0	94	0	8	0	0	0	0
Lane Group Flow (vph)	0	0	21	117	0	16	0	1070	0	103	777	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Perm		Perm		NA		Prot	NA	
Protected Phases								6		5	2	
Permitted Phases			4	8		8						
Actuated Green, G (s)			8.3	8.3		8.3		31.4		5.4	40.8	
Effective Green, g (s)			8.3	8.3		8.3		31.4		5.4	40.8	
Actuated g/C Ratio			0.14	0.14		0.14		0.54		0.09	0.70	
Clearance Time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Vehicle Extension (s)			3.0	4.0		4.0		4.0		0.5	4.0	
Lane Grp Cap (vph)			226	249		219		1868		164	2464	
v/s Ratio Prot								c0.31		c0.06	0.22	
v/s Ratio Perm			0.01	c0.07		0.01						
v/c Ratio			0.09	0.47		0.07		0.57		0.63	0.32	
Uniform Delay, d1			21.9	23.1		21.8		9.1		25.6	3.5	
Progression Factor			1.00	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2			0.2	1.9		0.2		0.5		5.3	0.1	
Delay (s)			22.1	25.0		22.0		9.6		30.9	3.6	
Level of Service			C	C		C		A		C	A	
Approach Delay (s)		22.1			23.6			9.6			6.8	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	58.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

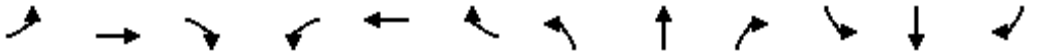
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	26	288	107	24	33	218	858	69	61	878	80
Future Volume (veh/h)	167	26	288	107	24	33	218	858	69	61	878	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1863	1863	1863	1881
Adj Flow Rate, veh/h	178	28	306	114	26	35	232	913	73	65	934	85
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	1
Cap, veh/h	217	263	394	146	195	163	273	1946	870	85	1555	693
Arrive On Green	0.12	0.14	0.14	0.08	0.11	0.11	0.16	0.55	0.55	0.05	0.44	0.44
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	3539	1582	1774	3539	1577
Grp Volume(v), veh/h	178	28	306	114	26	35	232	913	73	65	934	85
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1770	1582	1774	1770	1577
Q Serve(g_s), s	9.3	1.3	10.5	6.2	1.3	2.0	12.7	15.2	2.1	3.5	19.5	3.1
Cycle Q Clear(g_c), s	9.3	1.3	10.5	6.2	1.3	2.0	12.7	15.2	2.1	3.5	19.5	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	217	263	394	146	195	163	273	1946	870	85	1555	693
V/C Ratio(X)	0.82	0.11	0.78	0.78	0.13	0.21	0.85	0.47	0.08	0.77	0.60	0.12
Avail Cap(c_a), veh/h	559	565	845	543	565	471	799	1946	870	366	1824	813
HCM Platoon Ratio	1.00	1.00	1.00	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	41.7	36.1	40.0	43.6	39.3	39.6	39.7	13.2	10.3	45.7	20.7	16.1
Incr Delay (d2), s/veh	7.4	0.2	3.3	8.8	0.3	0.7	7.3	0.4	0.1	13.3	0.8	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	5.1	0.7	4.1	3.4	0.6	0.9	6.6	7.5	0.9	2.0	9.6	1.4
LnGrp Delay(d),s/veh	49.1	36.3	43.4	52.4	39.6	40.3	47.0	13.6	10.4	59.0	21.5	16.3
LnGrp LOS	D	D	D	D	D	D	D	B	B	E	C	B
Approach Vol, veh/h		512			175			1218			1084	
Approach Delay, s/veh		45.0			48.1			19.8			23.4	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	58.4	12.1	18.0	19.4	47.6	15.7	14.4
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	5.5	17.2	8.2	12.5	14.7	21.5	11.3	4.0
Green Ext Time (p_c), s	0.1	27.5	0.3	1.5	0.7	21.1	0.4	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

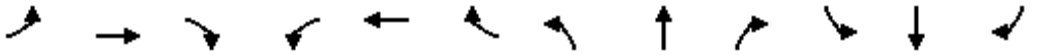


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	0	113	456	104	196	272	913	262	0	1169	94
Future Volume (veh/h)	77	0	113	456	104	196	272	913	262	0	1169	94
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1863	1845	1845	1810	1881	1845	1863	0	1792	1881
Adj Flow Rate, veh/h	82	0	120	485	184	160	289	971	279	0	1244	100
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	3	2	5	1	3	2	0	6	1
Cap, veh/h	106	0	0	586	248	207	333	3020	950	0	1734	567
Arrive On Green	0.06	0.00	0.00	0.17	0.13	0.13	0.19	0.60	0.60	0.00	0.35	0.35
Sat Flow, veh/h	1810	82		3514	1845	1538	1792	5036	1583	0	5055	1599
Grp Volume(v), veh/h	82	37.2		485	184	160	289	971	279	0	1244	100
Grp Sat Flow(s),veh/h/ln	1810	D		1757	1845	1538	1792	1679	1583	0	1631	1599
Q Serve(g_s), s	3.2			9.4	6.8	7.1	11.1	6.7	6.0	0.0	15.5	3.0
Cycle Q Clear(g_c), s	3.2			9.4	6.8	7.1	11.1	6.7	6.0	0.0	15.5	3.0
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	106			586	248	207	333	3020	950	0	1734	567
V/C Ratio(X)	0.77			0.83	0.74	0.77	0.87	0.32	0.29	0.00	0.72	0.18
Avail Cap(c_a), veh/h	513			2962	915	763	762	4938	1553	0	2427	793
HCM Platoon Ratio	1.00			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
Uniform Delay (d), s/veh	32.8			28.4	29.3	29.5	27.9	7.0	6.9	0.0	19.7	15.7
Incr Delay (d2), s/veh	4.4			1.2	1.6	2.3	2.7	0.0	0.1	0.0	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
%ile BackOfQ(50%),veh/ln	1.7			4.7	3.5	3.2	5.7	3.1	2.6	0.0	7.0	1.3
LnGrp Delay(d),s/veh	37.2			29.6	31.0	31.8	30.6	7.0	6.9	0.0	20.0	15.7
LnGrp LOS	D			C	C	C	C	A	A		B	B
Approach Vol, veh/h					829			1539			1344	
Approach Delay, s/veh					30.3			11.4			19.7	
Approach LOS					C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		48.0	16.2		17.3	30.7	8.2	14.3
Change Period (Y+Rc), s		5.7	4.4		* 4.2	5.7	4.1	4.8
Max Green Setting (Gmax), s		69.2	59.5		* 30	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s		8.7	11.4		13.1	17.5	5.2	9.1
Green Ext Time (p_c), s		9.5	0.4		0.1	7.5	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.0
HCM 2010 LOS	B

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	389	225	60	105	0	311	0	1288	88	280	770	348
Future Volume (veh/h)	389	225	60	105	0	311	0	1288	88	280	770	348
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1881	0	1881	0	1827	1900	1881	1845	1881
Adj Flow Rate, veh/h	409	237	63	111	0	327	0	1356	93	295	811	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	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	0	2	1	0	1	0	4	0	1	3	1
Cap, veh/h	576	389	170	183	0	0	0	2260	581	415	1933	882
Arrive On Green	0.17	0.11	0.11	0.10	0.00	0.00	0.00	0.36	0.36	0.12	0.55	0.00
Sat Flow, veh/h	3442	3610	1583	1792	111		0	6540	1615	3476	3505	1599
Grp Volume(v), veh/h	409	237	63	111	25.5		0	1356	93	295	811	0
Grp Sat Flow(s),veh/h/ln	1721	1805	1583	1792	C		0	1571	1615	1738	1752	1599
Q Serve(g_s), s	6.3	3.5	2.1	3.4			0.0	10.0	2.2	4.6	7.6	0.0
Cycle Q Clear(g_c), s	6.3	3.5	2.1	3.4			0.0	10.0	2.2	4.6	7.6	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	576	389	170	183			0	2260	581	415	1933	882
V/C Ratio(X)	0.71	0.61	0.37	0.61			0.00	0.60	0.16	0.71	0.42	0.00
Avail Cap(c_a), veh/h	3043	2235	980	1267			0	5002	1285	1537	4593	2096
HCM Platoon Ratio	1.00	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	0.00
Uniform Delay (d), s/veh	22.2	24.1	23.4	24.3			0.0	14.8	12.3	24.0	7.4	0.0
Incr Delay (d2), s/veh	1.2	0.6	0.5	1.2			0.0	0.1	0.0	0.8	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
%ile BackOfQ(50%),veh/ln	3.1	1.8	0.9	1.7			0.0	4.3	1.0	2.3	3.6	0.0
LnGrp Delay(d),s/veh	23.5	24.7	23.9	25.5			0.0	14.9	12.4	24.8	7.5	0.0
LnGrp LOS	C	C	C	C				B	B	C	A	
Approach Vol, veh/h		709						1449			1106	
Approach Delay, s/veh		23.9						14.7			12.1	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	10.8	26.0	9.5	10.2		36.9	13.6	
Change Period (Y+Rc), s	4.1	5.7	3.7	4.1		5.7	4.1	
Max Green Setting (Gmax), s	25.0	45.0	40.0	35.0		74.1	50.0	
Max Q Clear Time (g_c+I1), s	6.6	12.0	5.4	5.5		9.6	8.3	
Green Ext Time (p_c), s	0.2	8.4	0.0	0.6		8.8	1.1	

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	94	1284	64	0	935
Future Volume (Veh/h)	0	94	1284	64	0	935
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	102	1396	70	0	1016
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			443			404
pX, platoon unblocked	0.93	0.89			0.89	
vC, conflicting volume	1940	385			1467	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	967	0			900	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	89			100	
cM capacity (veh/h)	238	966			678	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	102	399	399	399	269	508	508
Volume Left	0	0	0	0	0	0	0
Volume Right	102	0	0	0	70	0	0
cSH	966	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.11	0.23	0.23	0.23	0.16	0.30	0.30
Queue Length 95th (ft)	9	0	0	0	0	0	0
Control Delay (s)	9.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						
Approach Delay (s)	9.2	0.0				0.0	
Approach LOS	A						

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	1	75	0	11	2	1332	56	26	910	1
Future Volume (veh/h)	5	0	1	75	0	11	2	1332	56	26	910	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1776	1900	1900	1900	1863	1863	1696	1881	1900
Adj Flow Rate, veh/h	5	0	1	82	0	12	2	1448	61	28	989	1
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	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
Percent Heavy Veh, %	0	0	0	7	0	0	0	2	2	12	1	0
Cap, veh/h	12	0	2	164	85	72	5	3512	1093	46	2560	1156
Arrive On Green	0.01	0.00	0.00	0.05	0.00	0.04	0.00	0.69	0.69	0.03	0.72	0.72
Sat Flow, veh/h	1810	0	1615	3281	1900	1615	1810	5085	1582	1616	3574	1614
Grp Volume(v), veh/h	5	0	1	82	0	12	2	1448	61	28	989	1
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1640	1900	1615	1810	1695	1582	1616	1787	1614
Q Serve(g_s), s	0.2	0.0	0.1	2.1	0.0	0.6	0.1	10.6	1.1	1.5	9.4	0.0
Cycle Q Clear(g_c), s	0.2	0.0	0.1	2.1	0.0	0.6	0.1	10.6	1.1	1.5	9.4	0.0
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	12	0	2	164	85	72	5	3512	1093	46	2560	1156
V/C Ratio(X)	0.42	0.00	0.45	0.50	0.00	0.17	0.41	0.41	0.06	0.61	0.39	0.00
Avail Cap(c_a), veh/h	630	0	750	1143	882	750	630	3542	1102	1125	3734	1686
HCM Platoon Ratio	1.00	1.00	1.00	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	42.6	0.0	43.0	39.9	0.0	39.6	42.9	5.8	4.3	41.4	4.8	3.5
Incr Delay (d2), s/veh	22.1	0.0	117.9	2.4	0.0	1.3	46.4	0.1	0.0	12.5	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	1.0	0.0	0.3	0.1	4.9	0.5	0.8	4.6	0.0
LnGrp Delay(d),s/veh	64.7	0.0	160.8	42.2	0.0	40.9	89.3	5.9	4.3	53.9	4.9	3.5
LnGrp LOS	E		F	D		D	F	A	A	D	A	A
Approach Vol, veh/h		6			94			1511			1018	
Approach Delay, s/veh		80.8			42.1			5.9			6.3	
Approach LOS		F			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	65.3	8.8	5.1	4.7	67.5	5.1	8.9
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	60.0	60.0	30.0	40.0	30.0	90.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	3.5	12.6	4.1	2.1	2.1	11.4	2.2	2.6
Green Ext Time (p_c), s	0.1	35.6	0.2	0.0	0.0	50.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.5
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	119	74	26	1182	873	67
Future Volume (veh/h)	119	74	26	1182	873	67
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1863	1865	1900
Adj Flow Rate, veh/h	125	78	27	1244	919	71
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2
Cap, veh/h	288	132	52	2756	3320	256
Arrive On Green	0.08	0.08	0.03	0.78	0.69	0.69
Sat Flow, veh/h	3510	1615	1810	3632	4991	372
Grp Volume(v), veh/h	125	78	27	1244	646	344
Grp Sat Flow(s),veh/h/ln	1755	1615	1810	1770	1697	1799
Q Serve(g_s), s	2.5	3.4	1.1	8.8	5.4	5.4
Cycle Q Clear(g_c), s	2.5	3.4	1.1	8.8	5.4	5.4
Prop In Lane	1.00	1.00	1.00			0.21
Lane Grp Cap(c), veh/h	288	132	52	2756	2337	1239
V/C Ratio(X)	0.43	0.59	0.52	0.45	0.28	0.28
Avail Cap(c_a), veh/h	1919	883	989	5053	2783	1475
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	32.0	32.4	35.0	2.8	4.4	4.4
Incr Delay (d2), s/veh	1.0	4.1	7.7	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.7	0.7	4.2	2.5	2.7
LnGrp Delay(d),s/veh	33.0	36.5	42.7	2.9	4.5	4.5
LnGrp LOS	C	D	D	A	A	A
Approach Vol, veh/h	203			1271	990	
Approach Delay, s/veh	34.4			3.7	4.5	
Approach LOS	C			A	A	

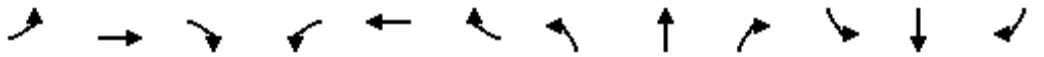
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		10.5	6.6	56.1				62.7
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		40.0	40.0	60.0				104.5
Max Q Clear Time (g_c+I1), s		5.4	3.1	7.4				10.8
Green Ext Time (p_c), s		0.7	0.0	34.0				46.2

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	301	343	51	221	130	307	902	43	143	658	161
Future Volume (veh/h)	224	301	343	51	221	130	307	902	43	143	658	161
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1845	1900	1900	1810	1900	1863	1863	1900	1863	1863	1845
Adj Flow Rate, veh/h	241	324	369	55	238	140	330	970	46	154	708	173
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	3	0	0	5	5	2	2	2	2	2	3
Cap, veh/h	276	1297	593	73	538	304	460	1087	52	187	1463	441
Arrive On Green	0.15	0.37	0.37	0.04	0.26	0.26	0.13	0.32	0.32	0.11	0.29	0.29
Sat Flow, veh/h	1792	3505	1602	1810	2100	1185	3442	3439	163	1774	5085	1534
Grp Volume(v), veh/h	241	324	369	55	193	185	330	499	517	154	708	173
Grp Sat Flow(s),veh/h/ln	1792	1752	1602	1810	1719	1566	1721	1770	1832	1774	1695	1534
Q Serve(g_s), s	14.8	7.2	21.3	3.4	10.6	11.3	10.4	30.3	30.3	9.6	13.0	10.2
Cycle Q Clear(g_c), s	14.8	7.2	21.3	3.4	10.6	11.3	10.4	30.3	30.3	9.6	13.0	10.2
Prop In Lane	1.00		1.00	1.00		0.76	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	276	1297	593	73	441	401	460	559	579	187	1463	441
V/C Ratio(X)	0.87	0.25	0.62	0.76	0.44	0.46	0.72	0.89	0.89	0.83	0.48	0.39
Avail Cap(c_a), veh/h	476	1553	710	721	762	694	1220	559	579	472	2028	611
HCM Platoon Ratio	1.00	1.00	1.00	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	46.7	24.7	29.1	53.6	35.2	35.4	46.8	36.8	36.8	49.5	33.3	32.3
Incr Delay (d2), s/veh	8.8	0.4	3.9	14.5	1.0	1.2	4.4	18.4	17.9	8.9	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	8.0	3.6	10.0	2.0	5.2	5.0	5.2	17.7	18.2	5.2	6.1	4.4
LnGrp Delay(d),s/veh	55.4	25.0	33.0	68.2	36.1	36.6	51.3	55.2	54.7	58.3	33.6	33.1
LnGrp LOS	E	C	C	E	D	D	D	E	D	E	C	C
Approach Vol, veh/h		934			433			1346			1035	
Approach Delay, s/veh		36.0			40.4			54.0			37.2	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	40.7	8.5	47.8	19.1	37.5	21.4	34.9
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	30.0	30.0	45.0	50.0	40.0	45.0	30.0	50.0
Max Q Clear Time (g_c+I1), s	11.6	32.3	5.4	23.3	12.4	15.0	16.8	13.3
Green Ext Time (p_c), s	0.4	0.0	0.1	13.4	2.7	17.5	0.6	15.7

Intersection Summary	
HCM 2010 Ctrl Delay	43.3
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	34	119	69	34	32	45	553	64	20	445	12
Future Volume (veh/h)	50	34	119	69	34	32	45	553	64	20	445	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1733	1845	1900	1743	1792	1681	1847	1900	1900	1827	1624
Adj Flow Rate, veh/h	55	37	131	76	37	35	49	608	70	22	489	13
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	12	12	3	9	9	6	13	3	3	0	4	17
Cap, veh/h	67	27	545	70	20	530	64	757	87	43	820	606
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.04	0.47	0.47	0.02	0.45	0.45
Sat Flow, veh/h	0	78	1566	0	57	1521	1601	1626	187	1810	1827	1350
Grp Volume(v), veh/h	92	0	131	113	0	35	49	0	678	22	489	13
Grp Sat Flow(s),veh/h/ln	78	0	1566	57	0	1521	1601	0	1813	1810	1827	1350
Q Serve(g_s), s	0.0	0.0	5.1	0.0	0.0	1.3	2.6	0.0	27.5	1.0	17.3	0.5
Cycle Q Clear(g_c), s	30.0	0.0	5.1	30.0	0.0	1.3	2.6	0.0	27.5	1.0	17.3	0.5
Prop In Lane	0.60		1.00	0.67		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	94	0	545	90	0	530	64	0	844	43	820	606
V/C Ratio(X)	0.98	0.00	0.24	1.26	0.00	0.07	0.76	0.00	0.80	0.51	0.60	0.02
Avail Cap(c_a), veh/h	94	0	545	90	0	530	558	0	844	630	1061	784
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	0.0	20.0	36.6	0.0	18.7	40.9	0.0	19.7	41.5	17.9	13.2
Incr Delay (d2), s/veh	86.2	0.0	0.3	180.5	0.0	0.1	19.3	0.0	6.8	10.6	1.9	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	4.4	0.0	2.3	6.6	0.0	0.6	1.5	0.0	15.3	0.6	9.1	0.2
LnGrp Delay(d),s/veh	120.6	0.0	20.2	217.0	0.0	18.8	60.2	0.0	26.5	52.1	19.8	13.2
LnGrp LOS	F		C	F		B	E		C	D	B	B
Approach Vol, veh/h		223			148			727			524	
Approach Delay, s/veh		61.6			170.1			28.8			21.0	
Approach LOS		E			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.1	45.5		34.5	7.6	44.1		34.5
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	30.0	40.0		30.0	30.0	50.0		30.0
Max Q Clear Time (g_c+I1), s	3.0	29.5		32.0	4.6	19.3		32.0
Green Ext Time (p_c), s	0.0	8.3		0.0	0.1	19.3		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		43.7
HCM 2010 LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	85	22	645	120	208	43	593	514	99	601	22
Future Volume (veh/h)	25	85	22	645	120	208	43	593	514	99	601	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1841	1900	1881	1870	1900	1900	1845	1881	1900	1861	1900
Adj Flow Rate, veh/h	27	90	23	777	0	221	46	631	547	105	639	23
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	1	3	0	0	3	1	0	2	2
Cap, veh/h	120	191	47	922	0	413	60	1553	708	133	1682	61
Arrive On Green	0.07	0.07	0.07	0.26	0.00	0.26	0.03	0.44	0.44	0.07	0.48	0.48
Sat Flow, veh/h	1740	2771	682	3583	0	1606	1810	3505	1597	1810	3478	125
Grp Volume(v), veh/h	27	56	57	777	0	221	46	631	547	105	325	337
Grp Sat Flow(s),veh/h/ln	1740	1749	1703	1792	0	1606	1810	1752	1597	1810	1768	1835
Q Serve(g_s), s	1.7	3.6	3.8	24.3	0.0	14.0	3.0	14.4	34.2	6.7	13.7	13.7
Cycle Q Clear(g_c), s	1.7	3.6	3.8	24.3	0.0	14.0	3.0	14.4	34.2	6.7	13.7	13.7
Prop In Lane	1.00		0.40	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	120	120	117	922	0	413	60	1553	708	133	855	888
V/C Ratio(X)	0.23	0.46	0.49	0.84	0.00	0.53	0.76	0.41	0.77	0.79	0.38	0.38
Avail Cap(c_a), veh/h	413	415	404	1822	0	816	307	1782	812	537	1124	1167
HCM Platoon Ratio	1.00	1.00	1.00	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	52.0	52.8	52.9	41.5	0.0	37.7	56.6	22.3	27.8	53.7	19.3	19.3
Incr Delay (d2), s/veh	0.9	2.7	3.1	2.2	0.0	1.1	18.0	0.2	4.5	9.8	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	0.9	1.8	1.9	12.3	0.0	6.3	1.8	7.0	15.9	3.7	6.8	7.0
LnGrp Delay(d),s/veh	52.9	55.6	56.1	43.7	0.0	38.8	74.6	22.5	32.4	63.5	19.7	19.6
LnGrp LOS	D	E	E	D		D	E	C	C	E	B	B
Approach Vol, veh/h		140			998			1224			767	
Approach Delay, s/veh		55.3			42.6			28.9			25.7	
Approach LOS		E			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.7	57.3		13.1	7.9	62.1		34.9
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	35.0	60.0		28.0	20.0	75.0		60.0
Max Q Clear Time (g_c+I1), s	8.7	36.2		5.8	5.0	15.7		26.3
Green Ext Time (p_c), s	0.3	16.1		0.6	0.1	26.9		4.1

Intersection Summary	
HCM 2010 Ctrl Delay	33.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	654	14	36	852	417	49	19	11	470	19	217
Future Volume (veh/h)	174	654	14	36	852	417	49	19	11	470	19	217
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1882	1900	1845	1881	1776	1900	1900	1900	1863	1866	1900
Adj Flow Rate, veh/h	181	681	15	38	888	0	51	20	11	504	0	226
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	1	1	3	1	7	0	0	0	2	0	0
Cap, veh/h	205	1361	30	49	1054	445	475	302	166	648	0	293
Arrive On Green	0.11	0.38	0.38	0.03	0.29	0.00	0.26	0.26	0.26	0.18	0.00	0.18
Sat Flow, veh/h	1810	3576	79	1757	3574	1509	1810	1151	633	3548	0	1604
Grp Volume(v), veh/h	181	340	356	38	888	0	51	0	31	504	0	226
Grp Sat Flow(s),veh/h/ln	1810	1788	1867	1757	1787	1509	1810	0	1785	1774	0	1604
Q Serve(g_s), s	13.1	19.4	19.4	2.9	31.1	0.0	2.9	0.0	1.7	18.0	0.0	17.9
Cycle Q Clear(g_c), s	13.1	19.4	19.4	2.9	31.1	0.0	2.9	0.0	1.7	18.0	0.0	17.9
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	205	680	711	49	1054	445	475	0	469	648	0	293
V/C Ratio(X)	0.88	0.50	0.50	0.78	0.84	0.00	0.11	0.00	0.07	0.78	0.00	0.77
Avail Cap(c_a), veh/h	210	680	711	270	1207	510	475	0	469	932	0	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	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.2	31.6	31.6	64.4	44.1	0.0	37.3	0.0	36.9	51.9	0.0	51.8
Incr Delay (d2), s/veh	31.8	2.1	2.0	22.6	7.3	0.0	0.5	0.0	0.3	3.4	0.0	6.9
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	8.4	9.9	10.4	1.7	16.4	0.0	1.5	0.0	0.9	9.1	0.0	8.5
LnGrp Delay(d),s/veh	90.0	33.6	33.6	87.0	51.4	0.0	37.8	0.0	37.2	55.3	0.0	58.8
LnGrp LOS	F	C	C	F	D		D		D	E		E
Approach Vol, veh/h		877			926			82			730	
Approach Delay, s/veh		45.2			52.9			37.5			56.4	
Approach LOS		D			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		40.0	8.2	55.7		29.4	19.6	44.3
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		35.0	20.5	45.0		35.0	15.5	45.0
Max Q Clear Time (g_c+I1), s		4.9	4.9	21.4		20.0	15.1	33.1
Green Ext Time (p_c), s		0.3	0.0	19.9		3.7	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	50.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	683	472	541	1070	0	0	0	0	43	3	296
Future Volume (veh/h)	0	683	472	541	1070	0	0	0	0	43	3	296
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1881	1863	1863	1827	0				1900	1863	1900
Adj Flow Rate, veh/h	0	719	497	569	1126	0				45	3	312
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	1	2	2	4	0				0	0	0
Cap, veh/h	0	1008	445	597	2356	0				403	3	349
Arrive On Green	0.00	0.28	0.28	0.34	0.68	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	3668	1578	1774	3563	0				1810	15	1571
Grp Volume(v), veh/h	0	719	497	569	1126	0				45	0	315
Grp Sat Flow(s),veh/h/ln	0	1787	1578	1774	1736	0				1810	0	1586
Q Serve(g_s), s	0.0	16.8	26.2	29.1	14.4	0.0				1.8	0.0	17.9
Cycle Q Clear(g_c), s	0.0	16.8	26.2	29.1	14.4	0.0				1.8	0.0	17.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1008	445	597	2356	0				403	0	353
V/C Ratio(X)	0.00	0.71	1.12	0.95	0.48	0.00				0.11	0.00	0.89
Avail Cap(c_a), veh/h	0	1008	445	610	2356	0				506	0	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.77	0.77	0.38	0.38	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.0	33.4	30.2	7.1	0.0				28.8	0.0	35.1
Incr Delay (d2), s/veh	0.0	3.3	73.7	12.8	0.3	0.0				0.0	0.0	15.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.8	20.5	16.3	6.8	0.0				0.9	0.0	9.4
LnGrp Delay(d),s/veh	0.0	33.3	107.1	43.0	7.4	0.0				28.9	0.0	50.2
LnGrp LOS		C	F	D	A					C		D
Approach Vol, veh/h		1216			1695						360	
Approach Delay, s/veh		63.5			19.3						47.5	
Approach LOS		E			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	36.9	31.3		24.8		68.2		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	32.0	20.4		26.0		58.0		
Max Q Clear Time (g_c+I1), s	31.1	28.2		19.9		16.4		
Green Ext Time (p_c), s	0.1	0.0		0.8		15.1		

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	524	0	0	1104	99	507	4	517	0	0	0
Future Volume (veh/h)	202	524	0	0	1104	99	507	4	517	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1881	0	0	1881	1900	1810	1839	1863			
Adj Flow Rate, veh/h	220	570	0	0	1200	108	729	0	374			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	1	0	0	1	1	5	0	2			
Cap, veh/h	253	2202	0	0	1449	130	1007	0	463			
Arrive On Green	0.14	0.62	0.00	0.00	0.44	0.44	0.29	0.00	0.29			
Sat Flow, veh/h	1774	3668	0	0	3412	298	3447	0	1583			
Grp Volume(v), veh/h	220	570	0	0	645	663	729	0	374			
Grp Sat Flow(s),veh/h/ln	1774	1787	0	0	1787	1829	1723	0	1583			
Q Serve(g_s), s	11.5	6.9	0.0	0.0	30.2	30.4	18.0	0.0	20.8			
Cycle Q Clear(g_c), s	11.5	6.9	0.0	0.0	30.2	30.4	18.0	0.0	20.8			
Prop In Lane	1.00		0.00	0.00		0.16	1.00		1.00			
Lane Grp Cap(c), veh/h	253	2202	0	0	781	799	1007	0	463			
V/C Ratio(X)	0.87	0.26	0.00	0.00	0.83	0.83	0.72	0.00	0.81			
Avail Cap(c_a), veh/h	280	2202	0	0	781	799	1234	0	567			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.71	0.71	0.00	0.00	0.84	0.84	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.9	8.3	0.0	0.0	23.6	23.6	30.2	0.0	31.1			
Incr Delay (d2), s/veh	16.0	0.2	0.0	0.0	8.3	8.3	2.0	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			
%ile BackOfQ(50%),veh/ln	6.7	3.5	0.0	0.0	16.7	17.1	8.9	0.0	10.1			
LnGrp Delay(d),s/veh	55.9	8.5	0.0	0.0	31.9	31.9	32.2	0.0	39.1			
LnGrp LOS	E	A			C	C	C		D			
Approach Vol, veh/h		790			1308			1103				
Approach Delay, s/veh		21.7			31.9			34.5				
Approach LOS		C			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		63.1			17.0	46.1		31.9
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		52.0			15.0	33.5		34.0
Max Q Clear Time (g_c+I1), s		8.9			13.5	32.4		22.8
Green Ext Time (p_c), s		12.1			0.1	0.9		5.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	913	116	20	1117	0	86	0	19	0	0	0
Future Volume (veh/h)	52	913	116	20	1117	0	86	0	19	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1861	1900	1900	1863	0	1827	0	1810			
Adj Flow Rate, veh/h	57	1003	127	22	1227	0	95	0	21			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	2	2	0	2	0	4	0	5			
Cap, veh/h	104	2242	284	36	2388	0	133	0	118			
Arrive On Green	0.06	0.71	0.71	0.02	0.67	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	1810	3148	398	1810	3632	0	1740	0	1538			
Grp Volume(v), veh/h	57	563	567	22	1227	0	95	0	21			
Grp Sat Flow(s),veh/h/ln	1810	1768	1779	1810	1770	0	1740	0	1538			
Q Serve(g_s), s	2.2	9.5	9.5	0.9	12.2	0.0	3.8	0.0	0.9			
Cycle Q Clear(g_c), s	2.2	9.5	9.5	0.9	12.2	0.0	3.8	0.0	0.9			
Prop In Lane	1.00		0.22	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	104	1259	1267	36	2388	0	133	0	118			
V/C Ratio(X)	0.55	0.45	0.45	0.61	0.51	0.00	0.71	0.00	0.18			
Avail Cap(c_a), veh/h	641	1259	1267	641	2509	0	617	0	545			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	32.4	4.3	4.3	34.3	5.7	0.0	31.8	0.0	30.5			
Incr Delay (d2), s/veh	4.5	0.7	0.7	15.7	0.5	0.0	6.9	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			
%ile BackOfQ(50%),veh/ln	1.2	4.8	4.8	0.6	6.0	0.0	2.0	0.0	0.4			
LnGrp Delay(d),s/veh	36.9	5.0	5.0	50.0	6.2	0.0	38.7	0.0	31.2			
LnGrp LOS	D	A	A	D	A		D		C			
Approach Vol, veh/h		1187			1249			116				
Approach Delay, s/veh		6.5			7.0			37.3				
Approach LOS		A			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	5.4	55.2			8.0	52.6		9.9
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	25.0	50.0			25.0	50.0		25.0
Max Q Clear Time (g_c+I1), s	2.9	11.5			4.2	14.2		5.8
Green Ext Time (p_c), s	0.0	36.0			0.1	33.4		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.1
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	1035	999	2
Future Vol, veh/h	0	20	5	1035	999	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	-	-	135	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	1067	1030	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	516	1032	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.35	2.2	-	-	-
Pot Cap-1 Maneuver	0	496	681	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	496	681	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	681	-	496	-	-
HCM Lane V/C Ratio	0.008	-	0.042	-	-
HCM Control Delay (s)	10.3	-	12.6	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	52	51	340	253	49
Future Vol, veh/h	65	52	51	340	253	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	370	-	220	-	-	-
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	71	57	55	370	275	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	598	164	328	0	-	0
Stage 1	302	-	-	-	-	-
Stage 2	296	-	-	-	-	-
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	434	852	1228	-	-	-
Stage 1	724	-	-	-	-	-
Stage 2	729	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	415	852	1228	-	-	-
Mov Cap-2 Maneuver	415	-	-	-	-	-
Stage 1	724	-	-	-	-	-
Stage 2	696	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1228	-	415	852	-	-
HCM Lane V/C Ratio	0.045	-	0.17	0.066	-	-
HCM Control Delay (s)	8.1	-	15.4	9.5	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	597	132	18	604	39	116	3	23	68	10	349
Future Volume (veh/h)	179	597	132	18	604	39	116	3	23	68	10	349
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	195	649	143	20	657	42	126	3	25	74	11	379
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	1072	236	139	1108	71	166	16	135	410	61	418
Arrive On Green	0.13	0.37	0.37	0.08	0.33	0.33	0.09	0.09	0.09	0.26	0.26	0.26
Sat Flow, veh/h	1774	2885	635	1774	3378	216	1774	172	1437	1554	231	1583
Grp Volume(v), veh/h	195	398	394	20	344	355	126	0	28	85	0	379
Grp Sat Flow(s),veh/h/ln	1774	1770	1751	1774	1770	1825	1774	0	1609	1785	0	1583
Q Serve(g_s), s	10.0	17.1	17.1	1.0	15.2	15.2	6.5	0.0	1.5	3.4	0.0	21.7
Cycle Q Clear(g_c), s	10.0	17.1	17.1	1.0	15.2	15.2	6.5	0.0	1.5	3.4	0.0	21.7
Prop In Lane	1.00		0.36	1.00		0.12	1.00		0.89	0.87		1.00
Lane Grp Cap(c), veh/h	236	657	650	139	580	598	166	0	151	471	0	418
V/C Ratio(X)	0.83	0.60	0.61	0.14	0.59	0.59	0.76	0.00	0.19	0.18	0.00	0.91
Avail Cap(c_a), veh/h	568	1133	1121	568	1133	1168	568	0	515	572	0	507
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	39.6	23.9	23.9	40.2	26.3	26.3	41.4	0.0	39.2	26.6	0.0	33.4
Incr Delay (d2), s/veh	7.2	3.2	3.3	0.5	3.5	3.4	6.9	0.0	0.6	0.2	0.0	17.7
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	5.4	8.9	8.8	0.5	7.9	8.2	3.5	0.0	0.7	1.7	0.0	11.5
LnGrp Delay(d),s/veh	46.8	27.1	27.2	40.7	29.7	29.7	48.3	0.0	39.7	26.8	0.0	51.1
LnGrp LOS	D	C	C	D	C	C	D		D	C		D
Approach Vol, veh/h		987			719			154			464	
Approach Delay, s/veh		31.0			30.0			46.7			46.6	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.4	39.8		12.8	16.4	35.7		28.7
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	30.0	* 60		30.0	30.0	60.0		30.0
Max Q Clear Time (g_c+I1), s	3.0	19.1		8.5	12.0	17.2		23.7
Green Ext Time (p_c), s	11.1	15.7		0.5	0.5	13.5		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.9
HCM 2010 LOS	C

Notes

Intersection	
Intersection Delay, s/veh	43.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	291	244	77	251	0	490	0	129	0	0	0
Future Vol, veh/h	1	291	244	77	251	0	490	0	129	0	0	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	7	3	7	6	0	5	0	4	0	0	0
Mvmt Flow	1	303	254	80	261	0	510	0	134	0	0	0
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	19	18.5	77.1	0
HCM LOS	C	C	F	-

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	490	129	292	244	77	251	0
LT Vol	490	0	1	0	77	0	0
Through Vol	0	0	291	0	0	251	0
RT Vol	0	129	0	244	0	0	0
Lane Flow Rate	510	134	304	254	80	261	0
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	1.087	0.237	0.614	0.472	0.181	0.553	0
Departure Headway (Hd)	7.667	6.359	7.605	7.003	8.511	7.976	9.045
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	475	564	478	519	424	455	0
Service Time	5.412	4.104	5.305	4.703	6.211	5.676	7.045
HCM Lane V/C Ratio	1.074	0.238	0.636	0.489	0.189	0.574	0
HCM Control Delay	94.5	11.1	21.7	15.8	13.1	20.1	12
HCM Lane LOS	F	B	C	C	B	C	N
HCM 95th-tile Q	16.6	0.9	4.1	2.5	0.7	3.3	0

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	67	819	5	98	417
Future Vol, veh/h	3	67	819	5	98	417
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	2	0	2	5
Mvmt Flow	3	72	881	5	105	448

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1542	883	0	0	886	0
Stage 1	883	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	128	348	-	-	764	-
Stage 1	408	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	110	348	-	-	764	-
Mov Cap-2 Maneuver	110	-	-	-	-	-
Stage 1	408	-	-	-	-	-
Stage 2	447	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.8	0	2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	318	764	-
HCM Lane V/C Ratio	-	-	0.237	0.138	-
HCM Control Delay (s)	-	-	19.8	10.5	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.9	0.5	-

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	2	2	3	31	1	5	9	815	69	2	420	1
Future Vol, veh/h	2	2	3	31	1	5	9	815	69	2	420	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	-	-	30	-	-	30	105	-	210	105	-	-
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, %	0	0	0	0	0	0	0	2	1	0	5	0
Mvmt Flow	2	2	3	34	1	5	10	886	75	2	457	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1367	1366	457	1368	1367	886	458	0	0	886	0	0
Stage 1	461	461	-	905	905	-	-	-	-	-	-	-
Stage 2	906	905	-	463	462	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	125	149	608	125	148	346	1114	-	-	773	-	-
Stage 1	584	569	-	334	358	-	-	-	-	-	-	-
Stage 2	333	358	-	583	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	121	147	608	122	146	346	1114	-	-	773	-	-
Mov Cap-2 Maneuver	121	147	-	122	146	-	-	-	-	-	-	-
Stage 1	579	568	-	331	355	-	-	-	-	-	-	-
Stage 2	324	355	-	576	567	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.6	41.4	0.1	0
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	133	608	123	346	773	-	-
HCM Lane V/C Ratio	0.009	-	-	0.033	0.005	0.283	0.016	0.003	-	-
HCM Control Delay (s)	8.3	-	-	33	11	45.4	15.6	9.7	-	-
HCM Lane LOS	A	-	-	D	B	E	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	1.1	0	0	-	-

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	87	28	89	51	21	11	99	208	80	7	125	79
Future Vol, veh/h	87	28	89	51	21	11	99	208	80	7	125	79
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	5	0	5	0	5	0	4	2	1	0	5	4
Mvmt Flow	98	31	100	57	24	12	111	234	90	8	140	89
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	11.7	12.1	15.2	11.3
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	76%	0%	61%	100%	0%	0%
Vol Thru, %	0%	72%	24%	0%	25%	0%	100%	0%
Vol Right, %	0%	28%	0%	100%	13%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	99	288	115	89	83	7	125	79
LT Vol	99	0	87	0	51	7	0	0
Through Vol	0	208	28	0	21	0	125	0
RT Vol	0	80	0	89	11	0	0	79
Lane Flow Rate	111	324	129	100	93	8	140	89
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.214	0.555	0.264	0.172	0.196	0.016	0.268	0.151
Departure Headway (Hd)	6.914	6.174	7.355	6.179	7.554	7.291	6.869	6.14
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	516	579	486	576	478	488	520	579
Service Time	4.694	3.953	5.147	3.97	5.254	5.086	4.664	3.934
HCM Lane V/C Ratio	0.215	0.56	0.265	0.174	0.195	0.016	0.269	0.154
HCM Control Delay	11.6	16.5	12.8	10.3	12.1	10.2	12.2	10
HCM Lane LOS	B	C	B	B	B	B	B	A
HCM 95th-tile Q	0.8	3.4	1.1	0.6	0.7	0	1.1	0.5

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	28	405	272	1
Future Vol, veh/h	0	11	28	405	272	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	4	2	3	0
Mvmt Flow	0	13	33	471	316	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	853	317	317	0	-	0
Stage 1	317	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	332	728	1232	-	-	-
Stage 1	743	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	323	728	1232	-	-	-
Mov Cap-2 Maneuver	323	-	-	-	-	-
Stage 1	743	-	-	-	-	-
Stage 2	575	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1232	-	728	-	-
HCM Lane V/C Ratio	0.026	-	0.018	-	-
HCM Control Delay (s)	8	-	10	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	193	240	30	133	150
Future Vol, veh/h	41	193	240	30	133	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	10	2	1	7	5	1
Mvmt Flow	47	219	273	34	151	170

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	763	290	0	0	307	0
Stage 1	290	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Critical Hdwy	6.5	6.22	-	-	4.15	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.318	-	-	2.245	-
Pot Cap-1 Maneuver	361	749	-	-	1237	-
Stage 1	741	-	-	-	-	-
Stage 2	611	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	317	749	-	-	1237	-
Mov Cap-2 Maneuver	317	-	-	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	536	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.5	0	3.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	605	1237	-
HCM Lane V/C Ratio	-	-	0.44	0.122	-
HCM Control Delay (s)	-	-	15.5	8.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.2	0.4	-

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	9	279	7	5	190
Future Vol, veh/h	40	9	279	7	5	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	43	10	297	7	5	202

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	514	301	0	0	304	0
Stage 1	301	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	524	743	-	-	1268	-
Stage 1	755	-	-	-	-	-
Stage 2	827	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	522	743	-	-	1268	-
Mov Cap-2 Maneuver	522	-	-	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	522	743	1268	-
HCM Lane V/C Ratio	-	-	0.082	0.013	0.004	-
HCM Control Delay (s)	-	-	12.5	9.9	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	0	-

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	0	0	38	0	8	0	278	44	8	222	0
Future Vol, veh/h	0	0	0	38	0	8	0	278	44	8	222	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	3	0	0	0	2	0	0	3	0
Mvmt Flow	0	0	0	42	0	9	0	305	48	9	244	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	596	616	244	592	592	330	244	0	0	354	0	0
Stage 1	262	262	-	330	330	-	-	-	-	-	-	-
Stage 2	334	354	-	262	262	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	418	409	800	416	422	716	1334	-	-	1216	-	-
Stage 1	747	695	-	681	649	-	-	-	-	-	-	-
Stage 2	684	634	-	741	695	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	411	406	800	414	419	716	1334	-	-	1216	-	-
Mov Cap-2 Maneuver	411	406	-	414	419	-	-	-	-	-	-	-
Stage 1	747	690	-	681	649	-	-	-	-	-	-	-
Stage 2	676	634	-	736	690	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	14.1	0	0.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1334	-	-	-	447	1216	-	-
HCM Lane V/C Ratio	-	-	-	-	0.113	0.007	-	-
HCM Control Delay (s)	0	-	-	0	14.1	8	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	159	42	280	160	38	222
Future Vol, veh/h	159	42	280	160	38	222
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	181	48	318	182	43	252

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	748	409	0	0	500	0
Stage 1	409	-	-	-	-	-
Stage 2	339	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	383	647	-	-	1075	-
Stage 1	675	-	-	-	-	-
Stage 2	726	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	368	647	-	-	1075	-
Mov Cap-2 Maneuver	481	-	-	-	-	-
Stage 1	675	-	-	-	-	-
Stage 2	697	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.7	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	481	647	1075	-
HCM Lane V/C Ratio	-	-	0.376	0.074	0.04	-
HCM Control Delay (s)	-	-	16.9	11	8.5	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1.7	0.2	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	29	23	410	362	3
Future Vol, veh/h	3	29	23	410	362	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	3	4	2	3	0
Mvmt Flow	3	33	26	461	407	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	920	408	410	0	-	0
Stage 1	408	-	-	-	-	-
Stage 2	512	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.236	-	-	-
Pot Cap-1 Maneuver	303	641	1138	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	296	641	1138	-	-	-
Mov Cap-2 Maneuver	422	-	-	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	592	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1138	-	611	-	-
HCM Lane V/C Ratio	0.023	-	0.059	-	-
HCM Control Delay (s)	8.2	-	11.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

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	0	115	1	1	15	200	710	5	3	718	12
Future Vol, veh/h	0	0	115	1	1	15	200	710	5	3	718	12
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	7	4	3	0	33	1	0
Mvmt Flow	0	0	121	1	1	16	211	747	5	3	756	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	756	1933	1933	750	756	0	0	753	0	0
Stage 1	-	-	-	1171	1171	-	-	-	-	-	-	-
Stage 2	-	-	-	762	762	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.21	7.1	6.5	6.27	4.14	-	-	4.43	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.309	3.5	4	3.363	2.236	-	-	2.497	-	-
Pot Cap-1 Maneuver	0	0	410	50	67	403	846	-	-	733	-	-
Stage 1	0	0	-	237	269	-	-	-	-	-	-	-
Stage 2	0	0	-	400	416	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	410	28	50	403	846	-	-	733	-	-
Mov Cap-2 Maneuver	-	-	-	28	50	-	-	-	-	-	-	-
Stage 1	-	-	-	178	202	-	-	-	-	-	-	-
Stage 2	-	-	-	281	414	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.4	26.8	2.3	0
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	846	-	-	410	183	733	-	-
HCM Lane V/C Ratio	0.249	-	-	0.295	0.098	0.004	-	-
HCM Control Delay (s)	10.7	-	-	17.4	26.8	9.9	-	-
HCM Lane LOS	B	-	-	C	D	A	-	-
HCM 95th %tile Q(veh)	1	-	-	1.2	0.3	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	44	176	148	66	22	178	206	115	22	213	36
Future Volume (veh/h)	50	44	176	148	66	22	178	206	115	22	213	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1667	1827	1881	1810	1900	1863	1863	1845	1900	1852	1900
Adj Flow Rate, veh/h	62	54	217	183	81	27	220	254	142	27	263	44
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	8	14	4	1	5	5	2	2	3	0	2	2
Cap, veh/h	331	330	300	288	208	69	281	600	496	33	520	86
Arrive On Green	0.20	0.20	0.20	0.16	0.16	0.16	0.16	0.32	0.32	0.02	0.17	0.17
Sat Flow, veh/h	1675	1667	1514	1792	1294	431	1774	1863	1541	1810	3000	493
Grp Volume(v), veh/h	62	54	217	183	0	108	220	254	142	27	152	155
Grp Sat Flow(s),veh/h/ln	1675	1667	1514	1792	0	1726	1774	1863	1541	1810	1760	1733
Q Serve(g_s), s	1.8	1.6	7.8	5.6	0.0	3.3	6.9	6.2	4.0	0.9	4.6	4.7
Cycle Q Clear(g_c), s	1.8	1.6	7.8	5.6	0.0	3.3	6.9	6.2	4.0	0.9	4.6	4.7
Prop In Lane	1.00		1.00	1.00		0.25	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	331	330	300	288	0	277	281	600	496	33	305	301
V/C Ratio(X)	0.19	0.16	0.72	0.64	0.00	0.39	0.78	0.42	0.29	0.82	0.50	0.51
Avail Cap(c_a), veh/h	807	803	729	863	0	831	763	1282	1060	794	1211	1192
HCM Platoon Ratio	1.00	1.00	1.00	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	19.4	19.3	21.8	22.8	0.0	21.8	23.5	15.5	14.7	28.4	21.7	21.8
Incr Delay (d2), s/veh	0.1	0.1	1.3	0.9	0.0	0.3	4.8	0.2	0.1	16.4	0.5	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	0.8	0.7	3.3	2.8	0.0	1.6	3.7	3.2	1.7	0.6	2.2	2.3
LnGrp Delay(d),s/veh	19.5	19.4	23.1	23.7	0.0	22.2	28.3	15.6	14.8	44.8	22.2	22.3
LnGrp LOS	B	B	C	C		C	C	B	B	D	C	C
Approach Vol, veh/h		333			291			616			334	
Approach Delay, s/veh		21.8			23.1			20.0			24.1	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.1	24.2		15.5	13.7	15.6		13.3
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	25.5	40.0		28.0	25.0	40.0		28.0
Max Q Clear Time (g_c+I1), s	2.9	8.2		9.8	8.9	6.7		7.6
Green Ext Time (p_c), s	0.0	2.5		0.6	0.5	2.5		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	14	9	78	24	260	15	279	86	313	350	8
Future Volume (veh/h)	9	14	9	78	24	260	15	279	86	313	350	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1845	1900	1881	1845	1863	1846	1900
Adj Flow Rate, veh/h	10	16	10	89	27	295	17	317	98	356	398	9
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	3	0	1	3	2	3	3
Cap, veh/h	147	192	93	355	91	694	23	564	464	426	947	21
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.01	0.30	0.30	0.24	0.53	0.53
Sat Flow, veh/h	238	942	454	1076	447	1560	1810	1881	1547	1774	1797	41
Grp Volume(v), veh/h	36	0	0	116	0	295	17	317	98	356	0	407
Grp Sat Flow(s),veh/h/ln	1633	0	0	1523	0	1560	1810	1881	1547	1774	0	1837
Q Serve(g_s), s	0.0	0.0	0.0	2.2	0.0	6.1	0.4	6.6	2.2	8.9	0.0	6.3
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.9	0.0	6.1	0.4	6.6	2.2	8.9	0.0	6.3
Prop In Lane	0.28		0.28	0.77		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	431	0	0	447	0	694	23	564	464	426	0	968
V/C Ratio(X)	0.08	0.00	0.00	0.26	0.00	0.42	0.74	0.56	0.21	0.84	0.00	0.42
Avail Cap(c_a), veh/h	767	0	0	732	0	993	618	1447	1190	606	0	1413
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	0.0	15.9	0.0	8.9	23.0	13.8	12.3	16.9	0.0	6.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.4	15.7	0.9	0.2	6.1	0.0	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	0.4	0.0	0.0	1.3	0.0	2.6	0.3	3.6	1.0	5.1	0.0	3.2
LnGrp Delay(d),s/veh	15.2	0.0	0.0	16.2	0.0	9.3	38.7	14.7	12.5	23.0	0.0	7.0
LnGrp LOS	B			B		A	D	B	B	C		A
Approach Vol, veh/h		36			411			432			763	
Approach Delay, s/veh		15.2			11.3			15.1			14.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.2	18.0		13.6	4.6	28.7		13.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	16.0	36.0		20.0	16.0	36.0		18.5
Max Q Clear Time (g_c+I1), s	10.9	8.6		2.8	2.4	8.3		8.1
Green Ext Time (p_c), s	0.4	5.3		1.8	0.0	5.3		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	46	58	64	52	43	137	324	84	30	134	314
Future Volume (veh/h)	53	46	58	64	52	43	137	324	84	30	134	314
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1843	1810	1845	1859	1900	1881	1870	1900	1845	1827	1881
Adj Flow Rate, veh/h	60	52	65	72	58	48	154	364	94	34	151	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	5	3	4	4	1	2	2	3	4	1
Cap, veh/h	132	114	211	242	130	107	201	820	209	70	402	352
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	0.29	0.29	0.04	0.22	0.00
Sat Flow, veh/h	962	834	1538	1757	942	780	1792	2805	716	1757	1827	1599
Grp Volume(v), veh/h	112	0	65	72	0	106	154	229	229	34	151	0
Grp Sat Flow(s),veh/h/ln	1795	0	1538	1757	0	1722	1792	1777	1744	1757	1827	1599
Q Serve(g_s), s	2.1	0.0	1.4	1.3	0.0	2.1	3.0	3.8	3.9	0.7	2.6	0.0
Cycle Q Clear(g_c), s	2.1	0.0	1.4	1.3	0.0	2.1	3.0	3.8	3.9	0.7	2.6	0.0
Prop In Lane	0.54		1.00	1.00		0.45	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	247	0	211	242	0	237	201	519	510	70	402	352
V/C Ratio(X)	0.45	0.00	0.31	0.30	0.00	0.45	0.77	0.44	0.45	0.48	0.38	0.00
Avail Cap(c_a), veh/h	1480	0	1268	1207	0	1183	985	1953	1917	965	2008	1758
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	14.4	0.0	14.1	14.1	0.0	14.4	15.7	10.5	10.5	17.1	12.1	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.3	0.3	0.0	0.5	2.3	0.3	0.3	1.9	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	1.1	0.0	0.6	0.7	0.0	1.0	1.6	1.9	1.9	0.4	1.3	0.0
LnGrp Delay(d),s/veh	14.9	0.0	14.4	14.4	0.0	14.9	18.0	10.8	10.8	19.0	12.4	0.0
LnGrp LOS	B		B	B		B	B	B	B	B	B	
Approach Vol, veh/h		177			178			612			185	
Approach Delay, s/veh		14.7			14.7			12.6			13.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	14.3		8.5	7.1	11.7		9.1
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	20.0	40.0		30.0	20.0	40.0		25.0
Max Q Clear Time (g_c+I1), s	2.7	5.9		4.1	5.0	4.6		4.1
Green Ext Time (p_c), s	0.0	2.8		0.4	0.1	2.8		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	13.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	130	304	241	59	80	176
Future Vol, veh/h	130	304	241	59	80	176
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	91	91	91	91	91	91
Heavy Vehicles, %	3	1	2	2	4	5
Mvmt Flow	143	334	265	65	88	193

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	634	265	0	0	265	0
Stage 1	265	-	-	-	-	-
Stage 2	369	-	-	-	-	-
Critical Hdwy	6.43	6.21	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.309	-	-	2.236	-
Pot Cap-1 Maneuver	442	776	-	-	1287	-
Stage 1	777	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	408	776	-	-	1287	-
Mov Cap-2 Maneuver	408	-	-	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	643	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.7	0	2.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	611	1287	-
HCM Lane V/C Ratio	-	-	0.781	0.068	-
HCM Control Delay (s)	-	-	28.7	8	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	7.4	0.2	-

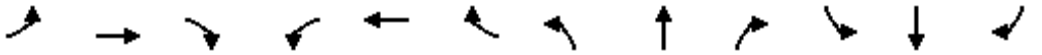
Intersection	
Int Delay, s/veh	7.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	28	111	90	30	96	132
Future Vol, veh/h	28	111	90	30	96	132
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	86	86	86	86	86	86
Heavy Vehicles, %	4	4	2	7	5	3
Mvmt Flow	33	129	105	35	112	153

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	162	0	341	97
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	244	-
Critical Hdwy	-	-	4.12	-	6.45	6.23
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.327
Pot Cap-1 Maneuver	-	-	1417	-	649	956
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	790	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1417	-	600	956
Mov Cap-2 Maneuver	-	-	-	-	600	-
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	730	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.8	12.2
HCM LOS			B

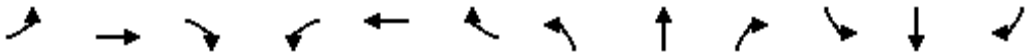
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	765	-	-	1417	-
HCM Lane V/C Ratio	0.347	-	-	0.074	-
HCM Control Delay (s)	12.2	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.6	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	195	120	222	168	24	123	311	214	29	337	59
Future Volume (veh/h)	70	195	120	222	168	24	123	311	214	29	337	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1881	1845	1881	1863	1900	1792	1827	1863	1900	1863	1845
Adj Flow Rate, veh/h	74	207	128	236	179	26	131	331	228	31	359	63
Adj No. of Lanes	1	1	1	2	1	1	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	1	3	1	2	0	6	4	2	0	2	3
Cap, veh/h	96	374	311	354	457	388	169	730	794	46	608	512
Arrive On Green	0.05	0.20	0.20	0.10	0.25	0.25	0.10	0.40	0.40	0.03	0.33	0.33
Sat Flow, veh/h	1757	1881	1568	3476	1863	1580	1707	1827	1583	1810	1863	1568
Grp Volume(v), veh/h	74	207	128	236	179	26	131	331	228	31	359	63
Grp Sat Flow(s),veh/h/ln	1757	1881	1568	1738	1863	1580	1707	1827	1583	1810	1863	1568
Q Serve(g_s), s	3.0	7.2	5.2	4.8	5.9	0.9	5.5	9.7	6.1	1.2	11.7	2.1
Cycle Q Clear(g_c), s	3.0	7.2	5.2	4.8	5.9	0.9	5.5	9.7	6.1	1.2	11.7	2.1
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	96	374	311	354	457	388	169	730	794	46	608	512
V/C Ratio(X)	0.77	0.55	0.41	0.67	0.39	0.07	0.78	0.45	0.29	0.67	0.59	0.12
Avail Cap(c_a), veh/h	482	774	645	1191	894	758	585	1002	1030	496	894	752
HCM Platoon Ratio	1.00	1.00	1.00	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	34.0	26.3	25.5	31.6	23.0	21.1	32.1	16.0	10.6	35.2	20.5	17.2
Incr Delay (d2), s/veh	11.9	2.7	1.9	2.2	1.2	0.2	7.4	0.9	0.4	15.4	2.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.0	2.4	2.4	3.1	0.4	2.9	5.1	2.7	0.8	6.3	0.9
LnGrp Delay(d),s/veh	46.0	29.1	27.4	33.7	24.1	21.3	39.5	17.0	11.0	50.7	22.4	17.5
LnGrp LOS	D	C	C	C	C	C	D	B	B	D	C	B
Approach Vol, veh/h		409			441			690			453	
Approach Delay, s/veh		31.6			29.1			19.3			23.7	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	34.7	11.9	20.0	11.7	29.3	8.5	23.4
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	20.0	40.0	25.0	30.0	25.0	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s	3.2	11.7	6.8	9.2	7.5	13.7	5.0	7.9
Green Ext Time (p_c), s	0.0	11.7	0.7	5.3	0.3	10.1	0.1	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	69	113	0	55	0	582	89	76	602	0
Future Volume (vph)	0	0	69	113	0	55	0	582	89	76	602	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00		1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00		1.00	1.00	
Frt			0.86	1.00		0.85		0.98		1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)			1602	1802		1455		3444		1752	3539	
Flt Permitted			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (perm)			1602	1802		1455		3444		1752	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	72	118	0	57	0	606	93	79	627	0
RTOR Reduction (vph)	0	0	60	0	0	47	0	12	0	0	0	0
Lane Group Flow (vph)	0	0	12	118	0	10	0	687	0	79	627	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Perm		Perm		NA		Prot	NA	
Protected Phases								6		5	2	
Permitted Phases			4	8		8						
Actuated Green, G (s)			8.2	8.2		8.2		22.7		3.5	30.2	
Effective Green, g (s)			8.2	8.2		8.2		22.7		3.5	30.2	
Actuated g/C Ratio			0.17	0.17		0.17		0.47		0.07	0.63	
Clearance Time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Vehicle Extension (s)			3.0	4.0		4.0		4.0		0.5	4.0	
Lane Grp Cap (vph)			274	308		249		1632		128	2231	
v/s Ratio Prot								c0.20		c0.05	0.18	
v/s Ratio Perm			0.01	c0.07		0.01						
v/c Ratio			0.04	0.38		0.04		0.42		0.62	0.28	
Uniform Delay, d1			16.6	17.6		16.6		8.3		21.5	4.0	
Progression Factor			1.00	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2			0.1	1.1		0.1		0.2		6.1	0.1	
Delay (s)			16.6	18.7		16.7		8.5		27.6	4.1	
Level of Service			B	B		B		A		C	A	
Approach Delay (s)		16.6			18.0			8.5			6.7	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	47.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	23	204	118	24	23	198	490	98	64	621	99
Future Volume (veh/h)	117	23	204	118	24	23	198	490	98	64	621	99
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1863	1881	1845	1863	1881
Adj Flow Rate, veh/h	122	24	212	123	25	24	206	510	102	67	647	103
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	1	3	2	1
Cap, veh/h	159	206	315	160	199	182	255	1861	840	87	1518	676
Arrive On Green	0.09	0.11	0.11	0.09	0.11	0.11	0.15	0.53	0.53	0.05	0.43	0.43
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	3539	1597	1757	3539	1577
Grp Volume(v), veh/h	122	24	212	123	25	24	206	510	102	67	647	103
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1770	1597	1757	1770	1577
Q Serve(g_s), s	5.3	0.9	5.6	5.3	1.0	1.0	8.8	6.2	2.5	2.9	9.9	3.1
Cycle Q Clear(g_c), s	5.3	0.9	5.6	5.3	1.0	1.0	8.8	6.2	2.5	2.9	9.9	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	159	206	315	160	199	182	255	1861	840	87	1518	676
V/C Ratio(X)	0.77	0.12	0.67	0.77	0.13	0.13	0.81	0.27	0.12	0.77	0.43	0.15
Avail Cap(c_a), veh/h	677	711	1084	683	684	628	1015	2295	1036	456	2295	1023
HCM Platoon Ratio	1.00	1.00	1.00	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	34.3	30.7	32.8	34.2	30.8	30.8	31.8	10.1	9.3	36.2	15.4	13.5
Incr Delay (d2), s/veh	7.6	0.2	2.5	7.5	0.3	0.3	6.0	0.2	0.1	13.3	0.4	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	2.9	0.5	2.3	2.9	0.5	0.5	4.7	3.0	1.1	1.7	4.8	1.4
LnGrp Delay(d),s/veh	41.9	31.0	35.4	41.7	31.1	31.1	37.8	10.3	9.4	49.5	15.8	13.7
LnGrp LOS	D	C	D	D	C	C	D	B	A	D	B	B
Approach Vol, veh/h		358			172			818			817	
Approach Delay, s/veh		37.3			38.7			17.1			18.3	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	45.6	11.0	12.7	15.3	38.1	11.0	12.7
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	4.9	8.2	7.3	7.6	10.8	11.9	7.3	3.0
Green Ext Time (p_c), s	0.1	22.3	0.3	1.1	0.6	21.2	0.3	1.2

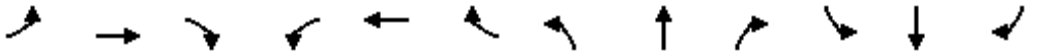
Intersection Summary	
HCM 2010 Ctrl Delay	22.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	290	407	149	169	340	558	245	0	880	82
Future Volume (veh/h)	80	0	290	407	149	169	340	558	245	0	880	82
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1881	1863	1867	1776	1900	1863	1845	0	1810	1900
Adj Flow Rate, veh/h	83	0	302	424	171	166	354	581	255	0	917	85
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	1	2	1	7	0	2	3	0	5	0
Cap, veh/h	110	0	0	538	268	217	403	2867	884	0	1357	443
Arrive On Green	0.06	0.00	0.00	0.15	0.14	0.14	0.22	0.56	0.56	0.00	0.27	0.27
Sat Flow, veh/h	1810	83		3548	1867	1509	1810	5085	1568	0	5103	1615
Grp Volume(v), veh/h	83	33.0		424	171	166	354	581	255	0	917	85
Grp Sat Flow(s),veh/h/ln	1810	C		1774	1867	1509	1810	1695	1568	0	1647	1615
Q Serve(g_s), s	2.8			7.3	5.4	6.7	11.9	3.5	5.3	0.0	10.4	2.5
Cycle Q Clear(g_c), s	2.8			7.3	5.4	6.7	11.9	3.5	5.3	0.0	10.4	2.5
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	110			538	268	217	403	2867	884	0	1357	443
V/C Ratio(X)	0.75			0.79	0.64	0.77	0.88	0.20	0.29	0.00	0.68	0.19
Avail Cap(c_a), veh/h	574			3350	1037	838	862	5585	1722	0	2744	897
HCM Platoon Ratio	1.00			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
Uniform Delay (d), s/veh	29.1			25.8	25.4	26.0	23.7	6.8	7.2	0.0	20.4	17.5
Incr Delay (d2), s/veh	3.9			1.0	0.9	2.1	2.5	0.0	0.1	0.0	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
%ile BackOfQ(50%),veh/ln	1.5			3.6	2.9	2.9	6.2	1.6	2.3	0.0	4.8	1.1
LnGrp Delay(d),s/veh	33.0			26.7	26.4	28.1	26.1	6.8	7.2	0.0	20.6	17.6
LnGrp LOS	C			C	C	C	C	A	A		C	B
Approach Vol, veh/h					761			1190			1002	
Approach Delay, s/veh					27.0			12.6			20.3	
Approach LOS					C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		41.2	14.0		18.2	23.0	7.9	13.9
Change Period (Y+Rc), s		5.7	4.4		* 4.2	5.7	4.1	4.8
Max Green Setting (Gmax), s		69.2	59.5		* 30	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s		7.3	9.3		13.9	12.4	4.8	8.7
Green Ext Time (p_c), s		5.1	0.3		0.1	4.9	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.3
HCM 2010 LOS	B

Notes

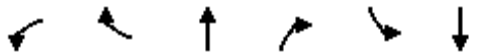


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	281	50	107	0	335	0	683	90	432	494	219
Future Volume (veh/h)	373	281	50	107	0	335	0	683	90	432	494	219
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1827	1900	0	1900	0	1776	1900	1881	1845	1827
Adj Flow Rate, veh/h	385	290	52	110	0	345	0	704	93	445	509	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	4	0	0	0	0	7	0	1	3	4
Cap, veh/h	576	470	206	203	0	0	0	1346	356	589	1664	737
Arrive On Green	0.17	0.13	0.13	0.11	0.00	0.00	0.00	0.22	0.22	0.17	0.47	0.00
Sat Flow, veh/h	3442	3539	1553	1810	110		0	6357	1615	3476	3505	1553
Grp Volume(v), veh/h	385	290	52	110	21.1		0	704	93	445	509	0
Grp Sat Flow(s),veh/h/ln	1721	1770	1553	1810	C		0	1527	1615	1738	1752	1553
Q Serve(g_s), s	5.1	3.7	1.4	2.8			0.0	4.9	2.3	5.9	4.3	0.0
Cycle Q Clear(g_c), s	5.1	3.7	1.4	2.8			0.0	4.9	2.3	5.9	4.3	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	576	470	206	203			0	1346	356	589	1664	737
V/C Ratio(X)	0.67	0.62	0.25	0.54			0.00	0.52	0.26	0.76	0.31	0.00
Avail Cap(c_a), veh/h	3572	2571	1128	1503			0	5706	1509	1804	5391	2389
HCM Platoon Ratio	1.00	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	0.00
Uniform Delay (d), s/veh	18.8	19.7	18.7	20.2			0.0	16.5	15.5	19.1	7.8	0.0
Incr Delay (d2), s/veh	1.0	0.5	0.2	0.8			0.0	0.1	0.1	0.8	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
%ile BackOfQ(50%),veh/ln	2.5	1.8	0.6	1.4			0.0	2.1	1.0	2.8	2.1	0.0
LnGrp Delay(d),s/veh	19.8	20.2	19.0	21.1			0.0	16.7	15.7	19.8	7.8	0.0
LnGrp LOS	B	C	B	C				B	B	B	A	
Approach Vol, veh/h		727						797			954	
Approach Delay, s/veh		19.9						16.5			13.4	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	12.3	16.3	9.1	10.5		28.6	12.2	
Change Period (Y+Rc), s	4.1	5.7	3.7	4.1		5.7	4.1	
Max Green Setting (Gmax), s	25.0	45.0	40.0	35.0		74.1	50.0	
Max Q Clear Time (g_c+I1), s	7.9	6.9	4.8	5.7		6.3	7.1	
Green Ext Time (p_c), s	0.3	3.7	0.0	0.7		3.7	1.1	

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

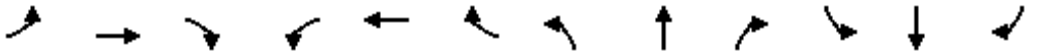
Notes



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	106	669	72	0	651
Future Volume (Veh/h)	0	106	669	72	0	651
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	110	697	75	0	678
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			443			404
pX, platoon unblocked	0.93	1.00			1.00	
vC, conflicting volume	1074	213			773	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	907	195			757	
tC, single (s)	7.8	7.0			5.4	
tC, 2 stage (s)						
tF (s)	4.0	3.4			2.9	
p0 queue free %	100	86			100	
cM capacity (veh/h)	186	795			530	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	110	199	199	199	175	339	339
Volume Left	0	0	0	0	0	0	0
Volume Right	110	0	0	0	75	0	0
cSH	795	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.14	0.12	0.12	0.12	0.10	0.20	0.20
Queue Length 95th (ft)	12	0	0	0	0	0	0
Control Delay (s)	10.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	10.3	0.0				0.0	
Approach LOS	B						

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	24.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	3	70	1	18	1	720	77	31	614	5
Future Volume (veh/h)	3	0	3	70	1	18	1	720	77	31	614	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1827	1900	1900	1900	1863	1881	1727	1863	1900
Adj Flow Rate, veh/h	3	0	3	72	1	19	1	742	79	32	633	5
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	4	0	0	0	2	1	10	2	0
Cap, veh/h	7	0	7	214	121	103	4	2525	793	59	1880	857
Arrive On Green	0.00	0.00	0.00	0.06	0.06	0.06	0.00	0.50	0.50	0.04	0.53	0.53
Sat Flow, veh/h	1810	0	1615	3375	1900	1615	1810	5085	1597	1645	3539	1613
Grp Volume(v), veh/h	3	0	3	72	1	19	1	742	79	32	633	5
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1688	1900	1615	1810	1695	1597	1645	1770	1613
Q Serve(g_s), s	0.1	0.0	0.1	1.0	0.0	0.6	0.0	4.3	1.3	0.9	5.1	0.1
Cycle Q Clear(g_c), s	0.1	0.0	0.1	1.0	0.0	0.6	0.0	4.3	1.3	0.9	5.1	0.1
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	7	0	7	214	121	103	4	2525	793	59	1880	857
V/C Ratio(X)	0.41	0.00	0.46	0.34	0.01	0.19	0.27	0.29	0.10	0.54	0.34	0.01
Avail Cap(c_a), veh/h	1096	0	1305	2045	1535	1305	1096	6162	1936	1993	6433	2933
HCM Platoon Ratio	1.00	1.00	1.00	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	24.6	0.0	24.6	22.2	21.7	22.0	24.7	7.3	6.6	23.5	6.6	5.5
Incr Delay (d2), s/veh	32.1	0.0	49.5	0.9	0.0	1.0	36.1	0.1	0.1	7.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.5	0.0	0.3	0.0	2.0	0.6	0.5	2.5	0.0
LnGrp Delay(d),s/veh	56.7	0.0	74.1	23.1	21.8	23.0	60.8	7.4	6.7	30.9	6.8	5.5
LnGrp LOS	E		E	C	C	C	E	A	A	C	A	A
Approach Vol, veh/h		6			92			822			670	
Approach Delay, s/veh		65.4			23.1			7.4			7.9	
Approach LOS		E			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	30.4	7.6	5.2	4.6	32.1	4.7	8.1
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	60.0	60.0	30.0	40.0	30.0	90.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	2.9	6.3	3.0	2.1	2.0	7.1	2.1	2.6
Green Ext Time (p_c), s	0.1	17.8	0.2	0.1	0.0	19.2	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	37	20	15	761	660	27
Future Volume (veh/h)	37	20	15	761	660	27
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1900	1863	1847	1900
Adj Flow Rate, veh/h	40	22	16	827	717	29
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	2	3	3
Cap, veh/h	206	98	37	2501	2901	117
Arrive On Green	0.06	0.06	0.02	0.71	0.58	0.58
Sat Flow, veh/h	3408	1615	1810	3632	5138	200
Grp Volume(v), veh/h	40	22	16	827	484	262
Grp Sat Flow(s),veh/h/ln	1704	1615	1810	1770	1681	1811
Q Serve(g_s), s	0.5	0.6	0.4	3.9	3.1	3.1
Cycle Q Clear(g_c), s	0.5	0.6	0.4	3.9	3.1	3.1
Prop In Lane	1.00	1.00	1.00			0.11
Lane Grp Cap(c), veh/h	206	98	37	2501	1961	1057
V/C Ratio(X)	0.19	0.23	0.44	0.33	0.25	0.25
Avail Cap(c_a), veh/h	3114	1475	1653	8447	4606	2482
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.6	19.6	21.2	2.5	4.4	4.4
Incr Delay (d2), s/veh	0.5	1.2	8.0	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	1.9	1.4	1.6
LnGrp Delay(d),s/veh	20.0	20.7	29.2	2.6	4.5	4.6
LnGrp LOS	C	C	C	A	A	A
Approach Vol, veh/h	62			843	746	
Approach Delay, s/veh	20.3			3.1	4.5	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		7.1	5.4	31.3				36.6
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		40.0	40.0	60.0				104.5
Max Q Clear Time (g_c+I1), s		2.6	2.4	5.1				5.9
Green Ext Time (p_c), s		0.2	0.0	20.5				22.9

Intersection Summary	
HCM 2010 Ctrl Delay	4.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	184	185	40	158	112	165	544	29	103	452	90
Future Volume (veh/h)	125	184	185	40	158	112	165	544	29	103	452	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1881	1863	1839	1900	1827	1858	1900	1863	1863	1827
Adj Flow Rate, veh/h	130	192	193	42	165	117	172	567	30	107	471	94
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	1	2	5	5	4	2	2	2	2	4
Cap, veh/h	170	986	441	69	442	293	308	1194	63	141	1721	515
Arrive On Green	0.10	0.28	0.28	0.04	0.22	0.22	0.09	0.35	0.35	0.08	0.34	0.34
Sat Flow, veh/h	1774	3539	1582	1774	1992	1319	3375	3410	180	1774	5085	1521
Grp Volume(v), veh/h	130	192	193	42	143	139	172	293	304	107	471	94
Grp Sat Flow(s),veh/h/ln	1774	1770	1582	1774	1747	1564	1688	1765	1825	1774	1695	1521
Q Serve(g_s), s	5.4	3.1	7.5	1.8	5.2	5.7	3.7	9.7	9.8	4.4	5.1	3.3
Cycle Q Clear(g_c), s	5.4	3.1	7.5	1.8	5.2	5.7	3.7	9.7	9.8	4.4	5.1	3.3
Prop In Lane	1.00		1.00	1.00		0.84	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	170	986	441	69	388	347	308	618	639	141	1721	515
V/C Ratio(X)	0.77	0.19	0.44	0.61	0.37	0.40	0.56	0.47	0.48	0.76	0.27	0.18
Avail Cap(c_a), veh/h	709	2356	1053	1063	1163	1041	1797	705	729	709	3046	911
HCM Platoon Ratio	1.00	1.00	1.00	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	33.1	20.7	22.3	35.5	24.8	25.0	32.7	19.0	19.0	33.9	18.1	17.5
Incr Delay (d2), s/veh	7.0	0.3	2.5	8.4	0.8	1.1	3.4	2.1	2.0	8.0	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	3.0	1.6	3.6	1.0	2.6	2.6	1.8	5.1	5.2	2.5	2.4	1.4
LnGrp Delay(d),s/veh	40.2	21.0	24.7	43.9	25.6	26.0	36.0	21.1	21.0	41.9	18.2	17.8
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	B	B
Approach Vol, veh/h		515			324			769			672	
Approach Delay, s/veh		27.3			28.2			24.4			21.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	31.3	6.9	26.9	10.9	30.4	11.2	22.7
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	30.0	30.0	45.0	50.0	40.0	45.0	30.0	50.0
Max Q Clear Time (g_c+I1), s	6.4	11.8	3.8	9.5	5.7	7.1	7.4	7.7
Green Ext Time (p_c), s	0.3	11.4	0.1	8.9	1.4	17.8	0.3	9.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	23	21	8	10	26	18	317	13	21	415	63
Future Volume (veh/h)	43	23	21	8	10	26	18	317	13	21	415	63
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1743	1810	1900	1803	1900	1792	1808	1900	1597	1863	1863
Adj Flow Rate, veh/h	47	25	23	9	11	29	20	348	14	23	456	69
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	26	26	5	0	0	0	6	5	5	19	2	2
Cap, veh/h	122	41	360	102	86	379	40	825	33	40	896	745
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.02	0.48	0.48	0.03	0.48	0.48
Sat Flow, veh/h	50	173	1535	22	368	1612	1707	1726	69	1521	1863	1549
Grp Volume(v), veh/h	72	0	23	20	0	29	20	0	362	23	456	69
Grp Sat Flow(s),veh/h/ln	223	0	1535	389	0	1612	1707	0	1795	1521	1863	1549
Q Serve(g_s), s	0.7	0.0	0.6	0.1	0.0	0.8	0.6	0.0	7.1	0.8	9.0	1.3
Cycle Q Clear(g_c), s	12.6	0.0	0.6	12.4	0.0	0.8	0.6	0.0	7.1	0.8	9.0	1.3
Prop In Lane	0.65		1.00	0.45		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	163	0	360	189	0	379	40	0	858	40	896	745
V/C Ratio(X)	0.44	0.00	0.06	0.11	0.00	0.08	0.50	0.00	0.42	0.57	0.51	0.09
Avail Cap(c_a), veh/h	617	0	856	686	0	899	953	0	1336	848	1732	1440
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	16.0	16.8	0.0	16.0	25.9	0.0	9.2	25.9	9.6	7.6
Incr Delay (d2), s/veh	2.2	0.0	0.1	0.3	0.0	0.1	10.6	0.0	0.9	13.8	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.3	0.2	0.0	0.3	0.4	0.0	3.6	0.5	4.9	0.6
LnGrp Delay(d),s/veh	23.2	0.0	16.1	17.1	0.0	16.1	36.5	0.0	10.1	39.7	10.8	7.7
LnGrp LOS	C		B	B		B	D		B	D	B	A
Approach Vol, veh/h		95			49			382			548	
Approach Delay, s/veh		21.5			16.5			11.5			11.6	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.5	31.2		17.5	5.4	31.4		17.5
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	30.0	40.0		30.0	30.0	50.0		30.0
Max Q Clear Time (g_c+I1), s	2.8	9.1		14.6	2.6	11.0		14.4
Green Ext Time (p_c), s	0.0	13.6		0.6	0.0	15.0		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	12.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	51	19	358	67	101	14	445	317	81	380	20
Future Volume (veh/h)	23	51	19	358	67	101	14	445	317	81	380	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1853	1881	1900	1845	1881	1827	1860	1900
Adj Flow Rate, veh/h	24	54	20	432	0	107	15	473	337	86	404	21
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	6	1	0	3	1	4	2	2
Cap, veh/h	143	206	72	657	0	291	26	1389	633	113	1526	79
Arrive On Green	0.08	0.08	0.08	0.18	0.00	0.18	0.01	0.40	0.40	0.07	0.45	0.45
Sat Flow, veh/h	1810	2611	912	3583	0	1586	1810	3505	1597	1740	3414	177
Grp Volume(v), veh/h	24	36	38	432	0	107	15	473	337	86	208	217
Grp Sat Flow(s),veh/h/ln	1810	1805	1718	1792	0	1586	1810	1752	1597	1740	1767	1824
Q Serve(g_s), s	0.8	1.3	1.4	7.5	0.0	4.0	0.6	6.3	10.8	3.3	5.0	5.0
Cycle Q Clear(g_c), s	0.8	1.3	1.4	7.5	0.0	4.0	0.6	6.3	10.8	3.3	5.0	5.0
Prop In Lane	1.00		0.53	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	143	143	136	657	0	291	26	1389	633	113	790	815
V/C Ratio(X)	0.17	0.25	0.28	0.66	0.00	0.37	0.57	0.34	0.53	0.76	0.26	0.27
Avail Cap(c_a), veh/h	756	754	718	3208	0	1420	540	3138	1429	909	1582	1633
HCM Platoon Ratio	1.00	1.00	1.00	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	28.8	29.0	29.1	25.4	0.0	24.0	32.8	14.1	15.5	30.8	11.6	11.6
Incr Delay (d2), s/veh	0.5	0.9	1.1	1.1	0.0	0.8	17.9	0.2	1.0	9.9	0.3	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	0.4	0.7	0.7	3.8	0.0	1.8	0.4	3.1	4.9	1.9	2.4	2.5
LnGrp Delay(d),s/veh	29.4	29.9	30.2	26.5	0.0	24.7	50.7	14.3	16.5	40.7	11.9	11.9
LnGrp LOS	C	C	C	C		C	D	B	B	D	B	B
Approach Vol, veh/h		98			539			825			511	
Approach Delay, s/veh		29.9			26.2			15.9			16.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.4	31.6		10.3	5.0	35.0		16.8
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	35.0	60.0		28.0	20.0	60.0		60.0
Max Q Clear Time (g_c+I1), s	5.3	12.8		3.4	2.6	7.0		9.5
Green Ext Time (p_c), s	0.2	13.7		0.4	0.0	14.1		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	395	14	22	389	417	43	15	22	375	24	177
Future Volume (veh/h)	173	395	14	22	389	417	43	15	22	375	24	177
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1882	1900	1810	1881	1827	1900	1846	1900	1881	1874	1863
Adj Flow Rate, veh/h	184	420	15	23	414	0	46	16	23	418	0	188
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	5	1	4	0	0	0	1	4	2
Cap, veh/h	213	1205	43	31	864	375	549	208	299	598	0	263
Arrive On Green	0.12	0.34	0.34	0.02	0.24	0.00	0.30	0.30	0.30	0.17	0.00	0.17
Sat Flow, veh/h	1792	3521	126	1723	3574	1553	1810	684	983	3583	0	1572
Grp Volume(v), veh/h	184	213	222	23	414	0	46	0	39	418	0	188
Grp Sat Flow(s),veh/h/ln	1792	1788	1859	1723	1787	1553	1810	0	1667	1792	0	1572
Q Serve(g_s), s	11.6	10.2	10.3	1.5	11.5	0.0	2.1	0.0	1.9	12.7	0.0	13.0
Cycle Q Clear(g_c), s	11.6	10.2	10.3	1.5	11.5	0.0	2.1	0.0	1.9	12.7	0.0	13.0
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	213	612	636	31	864	375	549	0	506	598	0	263
V/C Ratio(X)	0.87	0.35	0.35	0.74	0.48	0.00	0.08	0.00	0.08	0.70	0.00	0.72
Avail Cap(c_a), veh/h	241	698	726	306	1395	606	549	0	506	1088	0	477
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.9	28.3	28.3	56.3	37.5	0.0	28.7	0.0	28.6	45.3	0.0	45.4
Incr Delay (d2), s/veh	24.4	1.2	1.2	28.3	1.5	0.0	0.3	0.0	0.3	2.1	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	7.2	5.3	5.5	1.0	5.8	0.0	1.1	0.0	0.9	6.4	0.0	6.0
LnGrp Delay(d),s/veh	74.3	29.5	29.5	84.7	39.0	0.0	29.0	0.0	28.9	47.4	0.0	50.6
LnGrp LOS	E	C	C	F	D		C		C	D		D
Approach Vol, veh/h		619			437			85			606	
Approach Delay, s/veh		42.8			41.4			29.0			48.4	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		40.0	6.6	44.5		24.3	18.2	32.9
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		35.0	20.5	45.0		35.0	15.5	45.0
Max Q Clear Time (g_c+I1), s		4.1	3.5	12.3		15.0	13.6	13.5
Green Ext Time (p_c), s		0.4	0.0	14.7		3.3	0.1	14.4

Intersection Summary	
HCM 2010 Ctrl Delay	43.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	466	412	377	706	0	0	0	0	29	2	170
Future Volume (veh/h)	0	466	412	377	706	0	0	0	0	29	2	170
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1845	1863	0				1827	1863	1900
Adj Flow Rate, veh/h	0	491	434	397	743	0				31	2	179
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	3	2	0				4	0	4
Cap, veh/h	0	1613	720	433	2699	0				241	2	217
Arrive On Green	0.00	0.46	0.46	0.25	0.76	0.00				0.14	0.14	0.14
Sat Flow, veh/h	0	3632	1580	1757	3632	0				1740	18	1569
Grp Volume(v), veh/h	0	491	434	397	743	0				31	0	181
Grp Sat Flow(s),veh/h/ln	0	1770	1580	1757	1770	0				1740	0	1586
Q Serve(g_s), s	0.0	8.2	19.2	20.5	5.9	0.0				1.5	0.0	10.3
Cycle Q Clear(g_c), s	0.0	8.2	19.2	20.5	5.9	0.0				1.5	0.0	10.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1613	720	433	2699	0				241	0	220
V/C Ratio(X)	0.00	0.30	0.60	0.92	0.28	0.00				0.13	0.00	0.82
Avail Cap(c_a), veh/h	0	1613	720	604	2699	0				486	0	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.87	0.87	0.82	0.82	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.0	19.0	34.1	3.3	0.0				35.1	0.0	39.0
Incr Delay (d2), s/veh	0.0	0.4	3.2	10.8	0.2	0.0				0.1	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
%ile BackOfQ(50%),veh/ln	0.0	4.1	9.0	11.2	2.9	0.0				0.7	0.0	4.7
LnGrp Delay(d),s/veh	0.0	16.4	22.2	44.9	3.5	0.0				35.2	0.0	41.9
LnGrp LOS		B	C	D	A					D		D
Approach Vol, veh/h		925			1140						212	
Approach Delay, s/veh		19.1			17.9						40.9	
Approach LOS		B			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	28.5	47.5		17.0		76.0		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	32.0	20.4		26.0		58.0		
Max Q Clear Time (g_c+I1), s	22.5	21.2		12.3		7.9		
Green Ext Time (p_c), s	0.5	0.0		0.6		8.3		

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	349	0	0	610	73	473	3	370	0	0	0
Future Volume (veh/h)	146	349	0	0	610	73	473	3	370	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1881	1881	0	0	1850	1900	1845	1833	1827			
Adj Flow Rate, veh/h	162	388	0	0	678	81	655	0	275			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	1	1	0	0	3	3	3	33	4			
Cap, veh/h	196	2366	0	0	1631	195	863	0	381			
Arrive On Green	0.11	0.66	0.00	0.00	0.52	0.52	0.25	0.00	0.25			
Sat Flow, veh/h	1792	3668	0	0	3257	378	3514	0	1553			
Grp Volume(v), veh/h	162	388	0	0	376	383	655	0	275			
Grp Sat Flow(s),veh/h/ln	1792	1787	0	0	1758	1784	1757	0	1553			
Q Serve(g_s), s	8.3	3.9	0.0	0.0	12.4	12.4	16.3	0.0	15.3			
Cycle Q Clear(g_c), s	8.3	3.9	0.0	0.0	12.4	12.4	16.3	0.0	15.3			
Prop In Lane	1.00		0.00	0.00		0.21	1.00		1.00			
Lane Grp Cap(c), veh/h	196	2366	0	0	906	920	863	0	381			
V/C Ratio(X)	0.83	0.16	0.00	0.00	0.42	0.42	0.76	0.00	0.72			
Avail Cap(c_a), veh/h	286	2366	0	0	906	920	1234	0	545			
HCM Platoon Ratio	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	0.00	0.00	0.95	0.95	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.0	6.0	0.0	0.0	14.0	14.0	32.9	0.0	32.5			
Incr Delay (d2), s/veh	7.9	0.1	0.0	0.0	1.3	1.3	2.3	0.0	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			
%ile BackOfQ(50%),veh/ln	4.6	1.9	0.0	0.0	6.3	6.4	8.2	0.0	7.0			
LnGrp Delay(d),s/veh	48.9	6.2	0.0	0.0	15.4	15.4	35.1	0.0	36.2			
LnGrp LOS	D	A			B	B	D		D			
Approach Vol, veh/h		550			759			930				
Approach Delay, s/veh		18.8			15.4			35.5				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		66.8			13.8	53.1		27.2
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		52.0			15.0	33.5		33.0
Max Q Clear Time (g_c+I1), s		5.9			10.3	14.4		18.3
Green Ext Time (p_c), s		5.7			0.1	5.0		4.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	552	84	12	592	0	91	0	16	0	0	0
Future Volume (veh/h)	59	552	84	12	592	0	91	0	16	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1865	1900	1900	1845	0	1900	0	1900			
Adj Flow Rate, veh/h	64	600	91	13	643	0	99	0	17			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	3	0	0	0	0			
Cap, veh/h	124	2025	306	24	2112	0	142	0	127			
Arrive On Green	0.07	0.66	0.66	0.01	0.60	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	1810	3076	465	1810	3597	0	1810	0	1615			
Grp Volume(v), veh/h	64	345	346	13	643	0	99	0	17			
Grp Sat Flow(s),veh/h/ln	1810	1772	1770	1810	1752	0	1810	0	1615			
Q Serve(g_s), s	1.8	4.5	4.5	0.4	4.8	0.0	2.9	0.0	0.5			
Cycle Q Clear(g_c), s	1.8	4.5	4.5	0.4	4.8	0.0	2.9	0.0	0.5			
Prop In Lane	1.00		0.26	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	124	1166	1165	24	2112	0	142	0	127			
V/C Ratio(X)	0.52	0.30	0.30	0.55	0.30	0.00	0.70	0.00	0.13			
Avail Cap(c_a), veh/h	838	1642	1640	838	3247	0	838	0	748			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	24.3	3.9	3.9	26.5	5.2	0.0	24.2	0.0	23.2			
Incr Delay (d2), s/veh	3.3	0.4	0.4	18.2	0.2	0.0	6.0	0.0	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			
%ile BackOfQ(50%),veh/ln	1.0	2.2	2.2	0.3	2.4	0.0	1.7	0.0	0.3			
LnGrp Delay(d),s/veh	27.6	4.3	4.3	44.7	5.4	0.0	30.2	0.0	23.6			
LnGrp LOS	C	A	A	D	A		C		C			
Approach Vol, veh/h		755			656			116				
Approach Delay, s/veh		6.3			6.2			29.3				
Approach LOS		A			A			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	4.7	40.5			7.7	37.5		8.7
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	25.0	50.0			25.0	50.0		25.0
Max Q Clear Time (g_c+I1), s	2.4	6.5			3.8	6.8		4.9
Green Ext Time (p_c), s	0.0	25.8			0.1	25.7		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	7	671	784	0
Future Vol, veh/h	0	0	7	671	784	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	-	-	135	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	7	692	808	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	404	808	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	602	826	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	602	826	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	826	-	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-	-
HCM Control Delay (s)	9.4	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	42	45	59	368	289	35
Future Vol, veh/h	42	45	59	368	289	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	370	-	220	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	2	1	9
Mvmt Flow	46	49	64	400	314	38

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	661	176	352	0	-	0
Stage 1	333	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.2	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.25	-	-	-
Pot Cap-1 Maneuver	400	843	1182	-	-	-
Stage 1	704	-	-	-	-	-
Stage 2	708	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	378	843	1182	-	-	-
Mov Cap-2 Maneuver	378	-	-	-	-	-
Stage 1	704	-	-	-	-	-
Stage 2	670	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1182	-	378	843	-	-
HCM Lane V/C Ratio	0.054	-	0.121	0.058	-	-
HCM Control Delay (s)	8.2	-	15.8	9.5	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	493	85	19	532	8	97	1	15	18	3	85
Future Volume (veh/h)	33	493	85	19	532	8	97	1	15	18	3	85
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1868	1900	1900	1863	1900	1900	1783	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	519	89	20	560	8	102	1	16	19	3	89
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	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, %	0	2	2	0	2	2	0	0	0	0	0	0
Cap, veh/h	70	1245	213	100	1600	23	149	7	119	126	20	129
Arrive On Green	0.04	0.41	0.41	0.06	0.45	0.45	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1810	3033	518	1810	3573	51	1810	90	1439	1573	248	1615
Grp Volume(v), veh/h	35	303	305	20	277	291	102	0	17	22	0	89
Grp Sat Flow(s),veh/h/ln	1810	1775	1777	1810	1770	1854	1810	0	1529	1821	0	1615
Q Serve(g_s), s	0.9	5.9	5.9	0.5	5.0	5.0	2.7	0.0	0.5	0.5	0.0	2.6
Cycle Q Clear(g_c), s	0.9	5.9	5.9	0.5	5.0	5.0	2.7	0.0	0.5	0.5	0.0	2.6
Prop In Lane	1.00		0.29	1.00		0.03	1.00		0.94	0.86		1.00
Lane Grp Cap(c), veh/h	70	729	729	100	793	830	149	0	126	146	0	129
V/C Ratio(X)	0.50	0.42	0.42	0.20	0.35	0.35	0.68	0.00	0.13	0.15	0.00	0.69
Avail Cap(c_a), veh/h	1121	2198	2201	1121	2193	2297	1121	0	947	1128	0	1000
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	22.8	10.1	10.2	21.8	8.8	8.8	21.6	0.0	20.6	20.7	0.0	21.7
Incr Delay (d2), s/veh	5.4	1.4	1.4	1.0	1.0	0.9	5.4	0.0	0.5	0.5	0.0	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	0.6	3.1	3.2	0.3	2.6	2.7	1.6	0.0	0.2	0.3	0.0	1.4
LnGrp Delay(d),s/veh	28.2	11.5	11.6	22.8	9.7	9.7	27.0	0.0	21.1	21.2	0.0	28.1
LnGrp LOS	C	B	B	C	A	A	C		C	C		C
Approach Vol, veh/h		643			588			119			111	
Approach Delay, s/veh		12.4			10.1			26.2			26.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.7	24.9		8.0	5.9	26.7		7.9
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	30.0	* 60		30.0	30.0	60.0		30.0
Max Q Clear Time (g_c+I1), s	2.5	7.9		4.7	2.9	7.0		4.6
Green Ext Time (p_c), s	8.9	12.0		0.3	0.1	10.9		0.4

Intersection Summary		
HCM 2010 Ctrl Delay		13.7
HCM 2010 LOS		B

Notes

Intersection	
Intersection Delay, s/veh	19.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	195	189	292	174	4	221	3	100	3	2	11
Future Vol, veh/h	6	195	189	292	174	4	221	3	100	3	2	11
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	17	6	5	2	6	0	4	0	6	0	0	0
Mvmt Flow	7	241	233	360	215	5	273	4	123	4	2	14
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	15.8	23.5	19.3	11.6
HCM LOS	C	C	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	99%	0%	3%	0%	100%	0%	19%
Vol Thru, %	1%	0%	97%	0%	0%	98%	12%
Vol Right, %	0%	100%	0%	100%	0%	2%	69%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	224	100	201	189	292	178	16
LT Vol	221	0	6	0	292	0	3
Through Vol	3	0	195	0	0	174	2
RT Vol	0	100	0	189	0	4	11
Lane Flow Rate	277	123	248	233	360	220	20
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.617	0.231	0.51	0.42	0.744	0.426	0.045
Departure Headway (Hd)	8.031	6.741	7.398	6.473	7.43	6.972	8.205
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	454	536	489	555	487	516	436
Service Time	5.731	4.441	5.137	4.213	5.169	4.71	6.26
HCM Lane V/C Ratio	0.61	0.229	0.507	0.42	0.739	0.426	0.046
HCM Control Delay	22.8	11.5	17.6	13.8	28.8	14.8	11.6
HCM Lane LOS	C	B	C	B	D	B	B
HCM 95th-tile Q	4.1	0.9	2.8	2.1	6.2	2.1	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	55	427	1	34	357
Future Vol, veh/h	6	55	427	1	34	357
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	3	0	12	4
Mvmt Flow	6	57	445	1	35	372

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	888	445	0	0	446	0
Stage 1	445	-	-	-	-	-
Stage 2	443	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.22	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.308	-
Pot Cap-1 Maneuver	317	617	-	-	1063	-
Stage 1	650	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	307	617	-	-	1063	-
Mov Cap-2 Maneuver	307	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	630	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	561	1063	-
HCM Lane V/C Ratio	-	-	0.113	0.033	-
HCM Control Delay (s)	-	-	12.2	8.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

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	1	3	3	43	1	2	6	429	26	6	383	2
Future Vol, veh/h	1	3	3	43	1	2	6	429	26	6	383	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	-	-	30	-	-	30	105	-	210	105	-	-
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, %	0	0	0	0	0	0	0	4	8	0	4	50
Mvmt Flow	1	3	3	47	1	2	7	466	28	7	416	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	910	909	417	911	911	466	418	0	0	466	0	0
Stage 1	430	430	-	479	479	-	-	-	-	-	-	-
Stage 2	480	479	-	432	432	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	258	277	640	257	276	601	1152	-	-	1106	-	-
Stage 1	607	587	-	571	558	-	-	-	-	-	-	-
Stage 2	571	558	-	606	586	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	254	274	640	251	273	601	1152	-	-	1106	-	-
Mov Cap-2 Maneuver	254	274	-	251	273	-	-	-	-	-	-	-
Stage 1	603	583	-	568	555	-	-	-	-	-	-	-
Stage 2	564	555	-	596	582	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.2	22.2	0.1	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1152	-	-	269	640	251	601	1106	-	-
HCM Lane V/C Ratio	0.006	-	-	0.016	0.005	0.191	0.004	0.006	-	-
HCM Control Delay (s)	8.1	-	-	18.6	10.7	22.7	11	8.3	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0.7	0	0	-	-

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	87	29	114	57	11	4	91	125	37	7	120	57
Future Vol, veh/h	87	29	114	57	11	4	91	125	37	7	120	57
Peak Hour Factor	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Heavy Vehicles, %	3	0	1	2	0	0	0	2	5	0	3	4
Mvmt Flow	143	48	187	93	18	7	149	205	61	11	197	93
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	14.8	14.7	16.8	14.4
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	75%	0%	79%	100%	0%	0%
Vol Thru, %	0%	77%	25%	0%	15%	0%	100%	0%
Vol Right, %	0%	23%	0%	100%	6%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	162	116	114	72	7	120	57
LT Vol	91	0	87	0	57	7	0	0
Through Vol	0	125	29	0	11	0	120	0
RT Vol	0	37	0	114	4	0	0	57
Lane Flow Rate	149	266	190	187	118	11	197	93
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.327	0.535	0.419	0.352	0.282	0.026	0.422	0.182
Departure Headway (Hd)	7.893	7.251	7.93	6.786	8.593	8.177	7.717	7.016
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	497	453	529	418	437	466	510
Service Time	5.652	5.009	5.688	4.543	6.362	5.939	5.478	4.778
HCM Lane V/C Ratio	0.327	0.535	0.419	0.353	0.282	0.025	0.423	0.182
HCM Control Delay	14.5	18.1	16.3	13.2	14.7	11.2	16	11.3
HCM Lane LOS	B	C	C	B	B	B	C	B
HCM 95th-tile Q	1.4	3.1	2	1.6	1.1	0.1	2.1	0.7

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	11	23	268	260	2
Future Vol, veh/h	1	11	23	268	260	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	3	2	0
Mvmt Flow	1	12	26	298	289	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	639	290	291	0	-	0
Stage 1	290	-	-	-	-	-
Stage 2	349	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	443	754	1259	-	-	-
Stage 1	764	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	434	754	1259	-	-	-
Mov Cap-2 Maneuver	434	-	-	-	-	-
Stage 1	764	-	-	-	-	-
Stage 2	704	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1259	-	710	-	-
HCM Lane V/C Ratio	0.02	-	0.019	-	-
HCM Control Delay (s)	7.9	-	10.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	125	166	27	124	147
Future Vol, veh/h	35	125	166	27	124	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	15	2	3
Mvmt Flow	38	136	180	29	135	160

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	624	195	0	0	210	0
Stage 1	195	-	-	-	-	-
Stage 2	429	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	452	851	-	-	1361	-
Stage 1	843	-	-	-	-	-
Stage 2	661	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	407	851	-	-	1361	-
Mov Cap-2 Maneuver	407	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	595	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	3.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	687	1361	-
HCM Lane V/C Ratio	-	-	0.253	0.099	-
HCM Control Delay (s)	-	-	12	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	1	0.3	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	225	3	0	184
Future Vol, veh/h	1	1	225	3	0	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	48	48	48	48	48	48
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	2	2	469	6	0	383

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	855	472	0	0	475	0
Stage 1	472	-	-	-	-	-
Stage 2	383	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	331	596	-	-	1098	-
Stage 1	632	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	331	596	-	-	1098	-
Mov Cap-2 Maneuver	331	-	-	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	694	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	331	596	1098	-
HCM Lane V/C Ratio	-	-	0.006	0.003	-	-
HCM Control Delay (s)	-	-	15.9	11.1	0	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	1	29	0	13	2	215	35	13	172	0
Future Vol, veh/h	0	0	1	29	0	13	2	215	35	13	172	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	51	51	51	51	51	51	51	51	51	51	51	51
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	2	0
Mvmt Flow	0	0	2	57	0	25	4	422	69	25	337	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	864	886	337	853	852	456	337	0	0	490	0	0
Stage 1	388	388	-	464	464	-	-	-	-	-	-	-
Stage 2	476	498	-	389	388	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	277	286	710	281	299	609	1234	-	-	1084	-	-
Stage 1	640	612	-	582	567	-	-	-	-	-	-	-
Stage 2	574	548	-	639	612	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	260	278	710	275	291	609	1234	-	-	1084	-	-
Mov Cap-2 Maneuver	260	278	-	275	291	-	-	-	-	-	-	-
Stage 1	638	598	-	580	565	-	-	-	-	-	-	-
Stage 2	548	546	-	623	598	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	19.4	0.1	0.6
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1234	-	-	710	331	1084	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003	0.249	0.024	-	-
HCM Control Delay (s)	7.9	-	-	10.1	19.4	8.4	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	1	0.1	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	17	235	69	7	195
Future Vol, veh/h	68	17	235	69	7	195
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	131	33	452	133	13	375

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	920	518	0	0	585	0
Stage 1	518	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	303	562	-	-	1000	-
Stage 1	602	-	-	-	-	-
Stage 2	680	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	299	562	-	-	1000	-
Mov Cap-2 Maneuver	425	-	-	-	-	-
Stage 1	602	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.1	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	425	562	1000	-
HCM Lane V/C Ratio	-	-	0.308	0.058	0.013	-
HCM Control Delay (s)	-	-	17.2	11.8	8.6	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1.3	0.2	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	29	277	254	1
Future Vol, veh/h	0	17	29	277	254	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	12	10	1	1	0
Mvmt Flow	0	31	53	504	462	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1072	463	464	0	-	0
Stage 1	463	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Critical Hdwy	6.4	6.32	4.2	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.408	2.29	-	-	-
Pot Cap-1 Maneuver	246	579	1057	-	-	-
Stage 1	638	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	234	579	1057	-	-	-
Mov Cap-2 Maneuver	366	-	-	-	-	-
Stage 1	638	-	-	-	-	-
Stage 2	520	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1057	-	579	-	-
HCM Lane V/C Ratio	0.05	-	0.053	-	-
HCM Control Delay (s)	8.6	-	11.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	141	9	2	19	103	443	5	5	525	8
Future Vol, veh/h	0	0	141	9	2	19	103	443	5	5	525	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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	50	4	22	0	5	1	2	0	0	2	13
Mvmt Flow	0	0	193	12	3	26	141	607	7	7	719	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	719	1625	1625	610	719	0	0	614	0	0
Stage 1	-	-	-	892	892	-	-	-	-	-	-	-
Stage 2	-	-	-	733	733	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	7.32	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	3.698	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	425	74	103	489	887	-	-	975	-	-
Stage 1	0	0	-	311	363	-	-	-	-	-	-	-
Stage 2	0	0	-	383	429	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	425	35	86	489	887	-	-	975	-	-
Mov Cap-2 Maneuver	-	-	-	35	86	-	-	-	-	-	-	-
Stage 1	-	-	-	262	305	-	-	-	-	-	-	-
Stage 2	-	-	-	207	426	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.3	70.2	1.8	0.1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	887	-	-	425	94	975	-	-
HCM Lane V/C Ratio	0.159	-	-	0.454	0.437	0.007	-	-
HCM Control Delay (s)	9.8	-	-	20.3	70.2	8.7	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	2.3	1.8	0	-	-

Existing Plus Project Conditions

Project Driveway Option A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	118	225	136	133	125	211	364	81	40	304	112
Future Volume (veh/h)	171	118	225	136	133	125	211	364	81	40	304	112
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1727	1727	1827	1844	1900	1827	1863	1863	1900	1819	1900
Adj Flow Rate, veh/h	197	136	259	156	153	144	243	418	93	46	349	129
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	10	10	4	5	5	4	2	2	0	5	5
Cap, veh/h	381	375	311	371	186	175	284	637	533	59	504	182
Arrive On Green	0.22	0.22	0.22	0.21	0.21	0.21	0.16	0.34	0.34	0.03	0.21	0.21
Sat Flow, veh/h	1757	1727	1433	1740	870	819	1740	1863	1558	1810	2451	887
Grp Volume(v), veh/h	197	136	259	156	0	297	243	418	93	46	244	234
Grp Sat Flow(s),veh/h/ln	1757	1727	1433	1740	0	1688	1740	1863	1558	1810	1728	1610
Q Serve(g_s), s	8.9	6.0	15.5	6.9	0.0	15.1	12.2	17.1	3.7	2.3	11.7	12.1
Cycle Q Clear(g_c), s	8.9	6.0	15.5	6.9	0.0	15.1	12.2	17.1	3.7	2.3	11.7	12.1
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	381	375	311	371	0	360	284	637	533	59	355	331
V/C Ratio(X)	0.52	0.36	0.83	0.42	0.00	0.82	0.85	0.66	0.17	0.78	0.69	0.71
Avail Cap(c_a), veh/h	548	539	447	543	0	527	485	831	695	514	771	718
HCM Platoon Ratio	1.00	1.00	1.00	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	31.0	29.9	33.6	30.5	0.0	33.7	36.5	25.0	20.7	43.1	33.0	33.1
Incr Delay (d2), s/veh	0.4	0.2	6.0	0.3	0.0	4.4	7.3	0.5	0.1	7.9	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	2.9	6.7	3.4	0.0	7.5	6.4	8.8	1.6	1.3	5.6	5.5
LnGrp Delay(d),s/veh	31.4	30.1	39.6	30.8	0.0	38.1	43.8	25.5	20.7	50.9	33.8	34.2
LnGrp LOS	C	C	D	C		D	D	C	C	D	C	C
Approach Vol, veh/h		592			453			754			524	
Approach Delay, s/veh		34.7			35.5			30.8			35.5	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.9	36.2		23.5	19.2	23.9		23.1
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	25.5	40.0		28.0	25.0	40.0		28.0
Max Q Clear Time (g_c+I1), s	4.3	19.1		17.5	14.2	14.1		17.1
Green Ext Time (p_c), s	0.0	3.9		1.0	0.5	4.1		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	33.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	45	11	50	7	490	2	332	55	428	347	1
Future Volume (veh/h)	6	45	11	50	7	490	2	332	55	428	347	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1813	1900	1900	1900	1827	1900	1827	1827	1827	1793	1900
Adj Flow Rate, veh/h	6	48	12	54	8	527	2	357	59	460	373	1
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	4	0	4	4	4	6	6
Cap, veh/h	76	373	86	451	60	821	3	517	433	435	950	3
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.00	0.28	0.28	0.25	0.53	0.53
Sat Flow, veh/h	52	1337	309	1239	215	1547	1810	1827	1531	1740	1787	5
Grp Volume(v), veh/h	66	0	0	62	0	527	2	357	59	460	0	374
Grp Sat Flow(s),veh/h/ln	1697	0	0	1454	0	1547	1810	1827	1531	1740	0	1792
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	15.5	0.1	11.1	1.8	16.0	0.0	7.9
Cycle Q Clear(g_c), s	1.8	0.0	0.0	1.6	0.0	15.5	0.1	11.1	1.8	16.0	0.0	7.9
Prop In Lane	0.09		0.18	0.87		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	536	0	0	511	0	821	3	517	433	435	0	952
V/C Ratio(X)	0.12	0.00	0.00	0.12	0.00	0.64	0.67	0.69	0.14	1.06	0.00	0.39
Avail Cap(c_a), veh/h	588	0	0	525	0	836	453	1028	861	435	0	1008
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.3	0.0	0.0	17.2	0.0	10.7	31.9	20.4	17.1	24.0	0.0	8.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	1.6	68.8	1.7	0.1	59.0	0.0	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	0.9	0.0	0.0	0.8	0.0	7.0	0.1	5.8	0.8	14.8	0.0	3.9
LnGrp Delay(d),s/veh	17.4	0.0	0.0	17.3	0.0	12.4	100.8	22.1	17.2	83.0	0.0	9.1
LnGrp LOS	B			B		B	F	C	B	F		A
Approach Vol, veh/h		66			589			418			834	
Approach Delay, s/veh		17.4			12.9			21.8			49.9	
Approach LOS		B			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.0	22.1		21.9	4.1	38.0		21.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	16.0	36.0		20.0	16.0	36.0		18.5
Max Q Clear Time (g_c+I1), s	18.0	13.1		3.8	2.1	9.9		17.5
Green Ext Time (p_c), s	0.0	5.0		2.6	0.0	5.1		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	32	121	50	52	26	166	512	62	18	219	362
Future Volume (veh/h)	58	32	121	50	52	26	166	512	62	18	219	362
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1841	1845	1863	1804	1900	1863	1835	1900	1900	1810	1810
Adj Flow Rate, veh/h	64	35	133	55	57	29	182	563	68	20	241	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	3	2	8	8	2	4	4	0	5	5
Cap, veh/h	157	86	213	208	132	67	236	1168	141	45	479	407
Arrive On Green	0.14	0.14	0.14	0.12	0.12	0.12	0.13	0.37	0.37	0.02	0.26	0.00
Sat Flow, veh/h	1153	630	1568	1774	1129	574	1774	3133	377	1810	1810	1538
Grp Volume(v), veh/h	99	0	133	55	0	86	182	313	318	20	241	0
Grp Sat Flow(s),veh/h/ln	1783	0	1568	1774	0	1703	1774	1743	1768	1810	1810	1538
Q Serve(g_s), s	2.1	0.0	3.3	1.2	0.0	1.9	4.1	5.6	5.6	0.4	4.6	0.0
Cycle Q Clear(g_c), s	2.1	0.0	3.3	1.2	0.0	1.9	4.1	5.6	5.6	0.4	4.6	0.0
Prop In Lane	0.65		1.00	1.00		0.34	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	243	0	213	208	0	199	236	650	659	45	479	407
V/C Ratio(X)	0.41	0.00	0.62	0.26	0.00	0.43	0.77	0.48	0.48	0.44	0.50	0.00
Avail Cap(c_a), veh/h	1306	0	1149	1083	0	1040	867	1703	1727	884	1768	1503
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	16.2	0.0	16.7	16.5	0.0	16.8	17.1	9.8	9.8	19.7	12.8	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.1	0.2	0.0	0.5	2.0	0.3	0.3	2.5	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	1.0	0.0	1.5	0.6	0.0	0.9	2.1	2.7	2.8	0.3	2.3	0.0
LnGrp Delay(d),s/veh	16.6	0.0	17.8	16.7	0.0	17.4	19.2	10.1	10.1	22.2	13.2	0.0
LnGrp LOS	B		B	B		B	B	B	B	C	B	
Approach Vol, veh/h		232			141			813			261	
Approach Delay, s/veh		17.3			17.1			12.1			13.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.0	19.0		9.1	8.4	14.5		8.9
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	20.0	40.0		30.0	20.0	40.0		25.0
Max Q Clear Time (g_c+I1), s	2.4	7.6		5.3	6.1	6.6		3.9
Green Ext Time (p_c), s	0.0	4.2		0.5	0.2	4.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	26.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	92	393	347	88	80	309
Future Vol, veh/h	92	393	347	88	80	309
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	91	91	91	91	91	91
Heavy Vehicles, %	2	4	3	6	10	2
Mvmt Flow	101	432	381	97	88	340

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	896	381	0	0	381	0
Stage 1	381	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Critical Hdwy	6.42	6.24	-	-	4.2	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	-	-	2.29	-
Pot Cap-1 Maneuver	311	662	-	-	1135	-
Stage 1	691	-	-	-	-	-
Stage 2	600	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	281	662	-	-	1135	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	70.2	0	1.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	527	1135	-
HCM Lane V/C Ratio	-	-	1.011	0.077	-
HCM Control Delay (s)	-	-	70.2	8.4	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	14.5	0.3	-

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	118	24	67	95	34	68
Future Vol, veh/h	118	24	67	95	34	68
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	88	88	88	88	88	88
Heavy Vehicles, %	4	9	7	3	18	6
Mvmt Flow	134	27	76	108	39	77

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	161	0	408	148
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	260	-
Critical Hdwy	-	-	4.17	-	6.58	6.26
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.263	-	3.662	3.354
Pot Cap-1 Maneuver	-	-	1388	-	570	888
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1388	-	537	888
Mov Cap-2 Maneuver	-	-	-	-	537	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	705	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.2	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	729	-	-	1388	-
HCM Lane V/C Ratio	0.159	-	-	0.055	-
HCM Control Delay (s)	10.9	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	172	88	213	179	21	154	285	161	28	602	110
Future Volume (veh/h)	62	172	88	213	179	21	154	285	161	28	602	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1743	1863	1743	1810	1727	1792	1810	1827	1863	1881
Adj Flow Rate, veh/h	66	183	94	227	190	22	164	303	171	30	640	117
Adj No. of Lanes	1	1	1	2	1	1	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	9	2	9	5	10	6	5	4	2	1
Cap, veh/h	85	308	254	325	377	326	201	860	883	41	710	610
Arrive On Green	0.05	0.17	0.17	0.09	0.22	0.22	0.12	0.48	0.48	0.02	0.38	0.38
Sat Flow, veh/h	1707	1792	1482	3442	1743	1505	1645	1792	1538	1740	1863	1599
Grp Volume(v), veh/h	66	183	94	227	190	22	164	303	171	30	640	117
Grp Sat Flow(s),veh/h/ln	1707	1792	1482	1721	1743	1505	1645	1792	1538	1740	1863	1599
Q Serve(g_s), s	3.3	8.2	4.9	5.5	8.3	1.0	8.4	9.2	4.6	1.5	28.1	4.2
Cycle Q Clear(g_c), s	3.3	8.2	4.9	5.5	8.3	1.0	8.4	9.2	4.6	1.5	28.1	4.2
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	85	308	254	325	377	326	201	860	883	41	710	610
V/C Ratio(X)	0.78	0.59	0.37	0.70	0.50	0.07	0.82	0.35	0.19	0.73	0.90	0.19
Avail Cap(c_a), veh/h	394	620	512	992	703	607	474	860	883	401	751	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	40.7	33.1	31.8	38.1	29.9	27.0	37.1	14.1	8.9	42.1	25.3	17.9
Incr Delay (d2), s/veh	14.0	3.9	1.9	2.7	2.2	0.2	7.9	0.5	0.2	21.3	14.6	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	1.9	4.3	2.1	2.8	4.2	0.4	4.3	4.7	2.0	1.0	17.3	1.9
LnGrp Delay(d),s/veh	54.8	37.0	33.7	40.8	32.1	27.2	45.0	14.7	9.1	63.4	39.9	18.2
LnGrp LOS	D	D	C	D	C	C	D	B	A	E	D	B
Approach Vol, veh/h		343			439			638			787	
Approach Delay, s/veh		39.5			36.4			21.0			37.6	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	47.1	12.7	20.4	15.1	38.6	8.8	24.3
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	20.0	40.0	25.0	30.0	25.0	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s	3.5	11.2	7.5	10.2	10.4	30.1	5.3	10.3
Green Ext Time (p_c), s	0.0	16.0	0.7	4.7	0.4	3.0	0.1	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	32.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	104	104	0	93	0	522	50	127	776	1
Future Volume (vph)	0	0	104	104	0	93	0	522	50	127	776	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1448	1770		1495		3406	1583	1736	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1448	1770		1495		3406	1583	1736	3539	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	111	111	0	99	0	555	53	135	826	1
RTOR Reduction (vph)	0	0	105	0	0	74	0	0	27	0	0	0
Lane Group Flow (vph)	0	0	6	111	0	25	0	555	26	135	827	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			3.0	5.5		13.0		19.9	25.4	5.2	29.1	
Effective Green, g (s)			3.0	5.5		13.0		19.9	25.4	5.2	29.1	
Actuated g/C Ratio			0.06	0.11		0.25		0.39	0.49	0.10	0.56	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			84	188		376		1313	779	174	1995	
v/s Ratio Prot				c0.06				0.16	0.00	c0.08	c0.23	
v/s Ratio Perm			0.00			c0.02			0.01			
v/c Ratio			0.08	0.59		0.07		0.42	0.03	0.78	0.41	
Uniform Delay, d1			23.0	22.0		14.7		11.6	6.8	22.6	6.4	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.4	4.9		0.1		0.3	0.0	17.7	0.2	
Delay (s)			23.4	26.9		14.8		11.9	6.8	40.3	6.6	
Level of Service			C	C		B		B	A	D	A	
Approach Delay (s)		23.4			21.2			11.5			11.3	
Approach LOS		C			C			B			B	

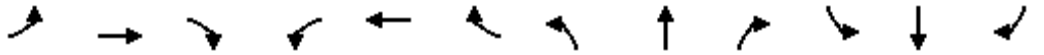
Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	51.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	23	109	149	41	28	225	588	113	89	902	86
Future Volume (veh/h)	74	23	109	149	41	28	225	588	113	89	902	86
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1776	1881	1743	1845	1863
Adj Flow Rate, veh/h	77	24	114	155	43	29	234	612	118	93	940	90
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	1	9	3	2
Cap, veh/h	99	129	182	190	224	196	277	1870	885	118	1624	724
Arrive On Green	0.06	0.07	0.07	0.12	0.13	0.13	0.16	0.55	0.55	0.07	0.46	0.46
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	3374	1598	1660	3505	1562
Grp Volume(v), veh/h	77	24	114	155	43	29	234	612	118	93	940	90
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1687	1598	1660	1752	1562
Q Serve(g_s), s	4.2	1.2	4.2	8.5	2.0	1.6	12.2	9.1	3.3	5.1	18.1	3.0
Cycle Q Clear(g_c), s	4.2	1.2	4.2	8.5	2.0	1.6	12.2	9.1	3.3	5.1	18.1	3.0
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	99	129	182	190	224	196	277	1870	885	118	1624	724
V/C Ratio(X)	0.78	0.19	0.63	0.81	0.19	0.15	0.85	0.33	0.13	0.79	0.58	0.12
Avail Cap(c_a), veh/h	537	569	799	537	563	492	835	1870	885	361	1905	849
HCM Platoon Ratio	1.00	1.00	1.00	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	42.6	40.0	41.3	39.7	35.7	35.5	37.4	11.2	9.9	42.0	18.1	14.1
Incr Delay (d2), s/veh	12.4	0.7	3.5	8.2	0.4	0.3	7.0	0.2	0.1	10.9	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.6	1.5	4.3	1.0	0.7	6.3	4.2	1.5	2.7	8.9	1.3
LnGrp Delay(d),s/veh	55.0	40.7	44.9	47.9	36.1	35.9	44.4	11.4	10.0	52.9	18.8	14.2
LnGrp LOS	E	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		215			227			964			1123	
Approach Delay, s/veh		48.1			44.1			19.2			21.3	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	56.0	14.6	10.8	18.9	47.6	9.5	15.9
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	7.1	11.1	10.5	6.2	14.2	20.1	6.2	4.0
Green Ext Time (p_c), s	0.2	28.4	0.4	0.9	0.7	22.5	0.2	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

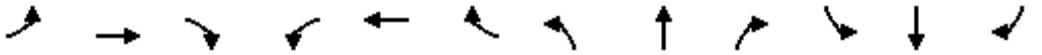


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	64	609	64	288	76	675	145	0	1134	38
Future Volume (veh/h)	5	0	64	609	64	288	76	675	145	0	1134	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1759	1845	1805	1776	1827	1792	1681	0	1696	1900
Adj Flow Rate, veh/h	5	0	70	669	0	363	84	742	159	0	1246	42
Adj No. of Lanes	1	0	1	2	0	2	1	3	1	0	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	8	3	2	7	4	6	13	0	12	0
Cap, veh/h	12	0	0	808	0	482	119	2682	783	0	1842	642
Arrive On Green	0.01	0.00	0.00	0.23	0.00	0.16	0.07	0.55	0.55	0.00	0.40	0.40
Sat Flow, veh/h	1810	5		3514	0	3019	1740	4893	1429	0	4784	1615
Grp Volume(v), veh/h	5	33.4		669	0	363	84	742	159	0	1246	42
Grp Sat Flow(s),veh/h/ln	1810	C		1757	0	1509	1740	1631	1429	0	1544	1615
Q Serve(g_s), s	0.1			9.3	0.0	5.9	2.4	4.1	2.9	0.0	11.3	0.8
Cycle Q Clear(g_c), s	0.1			9.3	0.0	5.9	2.4	4.1	2.9	0.0	11.3	0.8
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	12			808	0	482	119	2682	783	0	1842	642
V/C Ratio(X)	0.41			0.83	0.00	0.75	0.71	0.28	0.20	0.00	0.68	0.07
Avail Cap(c_a), veh/h	708			4087	0	2066	1021	6620	1934	0	3169	1105
HCM Platoon Ratio	1.00			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	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	25.3			18.7	0.0	20.5	23.3	6.2	5.9	0.0	12.7	9.5
Incr Delay (d2), s/veh	8.1			0.8	0.0	0.9	2.9	0.0	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
%ile BackOfQ(50%),veh/ln	0.1			4.6	0.0	2.5	1.3	1.9	1.1	0.0	4.8	0.4
LnGrp Delay(d),s/veh	33.4			19.6	0.0	21.4	26.2	6.2	5.9	0.0	12.9	9.5
LnGrp LOS	C			B		C	C	A	A		B	A
Approach Vol, veh/h					1032			985			1288	
Approach Delay, s/veh					20.2			7.8			12.7	
Approach LOS					C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		33.7	16.2		7.7	26.0	4.4	13.0
Change Period (Y+Rc), s		5.7	4.4		* 4.2	5.7	4.1	4.8
Max Green Setting (Gmax), s		69.2	59.5		* 30	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s		6.1	11.3		4.4	13.3	2.1	7.9
Green Ext Time (p_c), s		7.9	0.5		0.0	7.0	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	352	94	183	39	0	94	0	767	20	172	1011	230
Future Volume (veh/h)	352	94	183	39	0	94	0	767	20	172	1011	230
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1845	1776	1845	0	1863	0	1667	1792	1863	1863	1743
Adj Flow Rate, veh/h	405	108	210	45	0	108	0	882	23	198	1162	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	7	3	7	3	0	2	0	14	6	2	2	9
Cap, veh/h	581	622	268	114	0	0	0	1822	484	319	1739	728
Arrive On Green	0.18	0.18	0.18	0.06	0.00	0.00	0.00	0.32	0.32	0.09	0.49	0.00
Sat Flow, veh/h	3281	3505	1509	1757	45		0	5967	1524	3442	3539	1482
Grp Volume(v), veh/h	405	108	210	45	23.6		0	882	23	198	1162	0
Grp Sat Flow(s),veh/h/ln	1640	1752	1509	1757	C		0	1433	1524	1721	1770	1482
Q Serve(g_s), s	5.9	1.3	6.7	1.2			0.0	6.3	0.5	2.8	12.6	0.0
Cycle Q Clear(g_c), s	5.9	1.3	6.7	1.2			0.0	6.3	0.5	2.8	12.6	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	581	622	268	114			0	1822	484	319	1739	728
V/C Ratio(X)	0.70	0.17	0.78	0.40			0.00	0.48	0.05	0.62	0.67	0.00
Avail Cap(c_a), veh/h	3239	2422	1043	1387			0	5093	1354	1699	5178	2168
HCM Platoon Ratio	1.00	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	0.00
Uniform Delay (d), s/veh	19.6	17.7	19.9	22.7			0.0	13.9	12.0	22.1	9.8	0.0
Incr Delay (d2), s/veh	1.1	0.0	1.9	0.8			0.0	0.1	0.0	0.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.6	2.9	0.6			0.0	2.5	0.2	1.4	6.0	0.0
LnGrp Delay(d),s/veh	20.7	17.7	21.8	23.6			0.0	14.0	12.0	22.9	9.9	0.0
LnGrp LOS	C	B	C	C				B	B	C	A	
Approach Vol, veh/h		723						905			1360	
Approach Delay, s/veh		20.6						14.0			11.8	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	8.8	21.8	7.0	13.1		30.6	13.1	
Change Period (Y+Rc), s	4.1	5.7	3.7	4.1		5.7	4.1	
Max Green Setting (Gmax), s	25.0	45.0	40.0	35.0		74.1	50.0	
Max Q Clear Time (g_c+I1), s	4.8	8.3	3.2	8.7		14.6	7.9	
Green Ext Time (p_c), s	0.1	7.8	0.0	0.4		8.0	1.1	

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	79	708	21	0	1233
Future Volume (Veh/h)	0	79	708	21	0	1233
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	0	98	874	26	0	1522
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			443			404
pX, platoon unblocked	0.76	0.96			0.96	
vC, conflicting volume	1649	232			901	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	867	17			711	
tC, single (s)	6.8	7.4			5.1	
tC, 2 stage (s)						
tF (s)	3.5	3.5			2.7	
p0 queue free %	100	90			100	
cM capacity (veh/h)	225	953			605	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	98	250	250	250	151	761	761
Volume Left	0	0	0	0	0	0	0
Volume Right	98	0	0	0	26	0	0
cSH	953	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.10	0.15	0.15	0.15	0.09	0.45	0.45
Queue Length 95th (ft)	9	0	0	0	0	0	0
Control Delay (s)	9.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						
Approach Delay (s)	9.2	0.0				0.0	
Approach LOS	A						

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	1	36	1	4	0	723	22	35	1195	3
Future Volume (veh/h)	2	0	1	36	1	4	0	723	22	35	1195	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1267	1900	1900	1597	1900	1520	1900	1792	1743	1387	1827	1429
Adj Flow Rate, veh/h	2	0	1	45	1	5	0	904	28	44	1494	4
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	50	0	0	19	0	25	0	6	9	37	4	33
Cap, veh/h	3	0	2	115	71	48	2	3346	1012	51	2694	942
Arrive On Green	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.68	0.68	0.04	0.78	0.78
Sat Flow, veh/h	1206	0	1615	2950	1900	1292	1810	4893	1481	1321	3471	1214
Grp Volume(v), veh/h	2	0	1	45	1	5	0	904	28	44	1494	4
Grp Sat Flow(s),veh/h/ln	1206	0	1615	1475	1900	1292	1810	1631	1481	1321	1736	1214
Q Serve(g_s), s	0.1	0.0	0.1	1.2	0.0	0.3	0.0	6.0	0.5	2.8	14.1	0.1
Cycle Q Clear(g_c), s	0.1	0.0	0.1	1.2	0.0	0.3	0.0	6.0	0.5	2.8	14.1	0.1
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	3	0	2	115	71	48	2	3346	1012	51	2694	942
V/C Ratio(X)	0.61	0.00	0.45	0.39	0.01	0.10	0.00	0.27	0.03	0.87	0.55	0.00
Avail Cap(c_a), veh/h	434	0	776	1062	912	620	652	3525	1067	951	3751	1311
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	0.0	41.6	39.1	38.6	38.7	0.0	5.1	4.2	39.8	3.7	2.1
Incr Delay (d2), s/veh	113.2	0.0	117.8	2.2	0.1	1.1	0.0	0.1	0.0	32.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.5	0.0	0.1	0.0	2.7	0.2	1.5	6.7	0.0
LnGrp Delay(d),s/veh	154.7	0.0	159.3	41.2	38.7	39.8	0.0	5.2	4.3	72.6	3.9	2.1
LnGrp LOS	F		F	D	D	D		A	A	E	A	A
Approach Vol, veh/h		3			51			932			1542	
Approach Delay, s/veh		156.2			41.1			5.1			5.8	
Approach LOS		F			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	62.8	7.7	5.1	0.0	70.4	4.7	8.1
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	60.0	60.0	30.0	40.0	30.0	90.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	4.8	8.0	3.2	2.1	0.0	16.1	2.1	2.3
Green Ext Time (p_c), s	0.1	38.2	0.1	0.0	0.0	48.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	8	73	693	1052	304
Future Volume (veh/h)	22	8	73	693	1052	304
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1900	1900	1810	1829	1900
Adj Flow Rate, veh/h	29	11	96	912	1384	400
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	5	0	0	5	5	5
Cap, veh/h	121	58	127	2898	2770	797
Arrive On Green	0.04	0.04	0.07	0.84	0.72	0.72
Sat Flow, veh/h	3343	1615	1810	3529	4018	1108
Grp Volume(v), veh/h	29	11	96	912	1195	589
Grp Sat Flow(s),veh/h/ln	1672	1615	1810	1719	1664	1633
Q Serve(g_s), s	0.7	0.6	4.4	4.8	13.3	13.4
Cycle Q Clear(g_c), s	0.7	0.6	4.4	4.8	13.3	13.4
Prop In Lane	1.00	1.00	1.00			0.68
Lane Grp Cap(c), veh/h	121	58	127	2898	2393	1174
V/C Ratio(X)	0.24	0.19	0.75	0.31	0.50	0.50
Avail Cap(c_a), veh/h	1588	767	860	4266	2393	1174
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	39.5	39.4	38.4	1.4	5.2	5.2
Incr Delay (d2), s/veh	1.0	1.5	8.6	0.1	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	2.5	2.2	6.0	6.0
LnGrp Delay(d),s/veh	40.5	40.9	47.0	1.5	5.4	5.6
LnGrp LOS	D	D	D	A	A	A
Approach Vol, veh/h	40			1008	1784	
Approach Delay, s/veh	40.6			5.8	5.5	
Approach LOS	D			A	A	

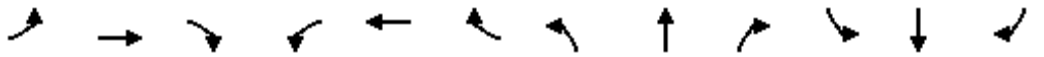
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		7.5	10.4	66.2				76.7
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		40.0	40.0	60.0				104.5
Max Q Clear Time (g_c+I1), s		2.7	6.4	15.4				6.8
Green Ext Time (p_c), s		0.1	0.3	36.5				64.2

Intersection Summary	
HCM 2010 Ctrl Delay	6.1
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	204	202	97	257	140	383	575	80	89	590	146
Future Volume (veh/h)	88	204	202	97	257	140	383	575	80	89	590	146
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1863	1845	1900	1863	1900	1881	1780	1900	1696	1827	1827
Adj Flow Rate, veh/h	106	246	243	117	310	169	461	693	96	107	711	176
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	6	2	3	0	2	2	1	7	7	12	4	4
Cap, veh/h	134	988	433	150	627	333	631	1111	154	134	1366	416
Arrive On Green	0.08	0.28	0.28	0.08	0.28	0.28	0.18	0.37	0.37	0.08	0.27	0.27
Sat Flow, veh/h	1707	3539	1551	1810	2216	1176	3476	2981	413	1616	4988	1518
Grp Volume(v), veh/h	106	246	243	117	246	233	461	393	396	107	711	176
Grp Sat Flow(s),veh/h/ln	1707	1770	1551	1810	1770	1622	1738	1691	1703	1616	1663	1518
Q Serve(g_s), s	6.3	5.6	13.9	6.6	12.0	12.5	13.0	19.7	19.8	6.8	12.6	9.9
Cycle Q Clear(g_c), s	6.3	5.6	13.9	6.6	12.0	12.5	13.0	19.7	19.8	6.8	12.6	9.9
Prop In Lane	1.00		1.00	1.00		0.72	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	134	988	433	150	501	459	631	630	635	134	1366	416
V/C Ratio(X)	0.79	0.25	0.56	0.78	0.49	0.51	0.73	0.62	0.62	0.80	0.52	0.42
Avail Cap(c_a), veh/h	492	1701	745	783	850	780	1336	630	635	466	2157	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)	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	47.1	29.1	32.1	46.8	31.0	31.2	40.2	26.7	26.7	46.9	32.0	31.0
Incr Delay (d2), s/veh	9.8	0.5	4.1	8.5	1.1	1.2	3.5	3.9	3.9	10.4	0.4	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	3.4	2.8	6.4	3.7	6.0	5.7	6.6	9.8	9.9	3.4	5.8	4.2
LnGrp Delay(d),s/veh	56.9	29.5	36.2	55.3	32.1	32.5	43.7	30.5	30.5	57.3	32.4	32.0
LnGrp LOS	E	C	D	E	C	C	D	C	C	E	C	C
Approach Vol, veh/h		595			596			1250			994	
Approach Delay, s/veh		37.1			36.8			35.4			35.0	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	43.8	12.6	35.0	22.9	33.5	12.2	35.5
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	30.0	30.0	45.0	50.0	40.0	45.0	30.0	50.0
Max Q Clear Time (g_c+I1), s	8.8	21.8	8.6	15.9	15.0	14.6	8.3	14.5
Green Ext Time (p_c), s	0.3	7.2	0.3	12.8	3.9	13.9	0.2	13.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.8
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	21	71	20	67	31	92	349	62	30	336	40
Future Volume (veh/h)	30	21	71	20	67	31	92	349	62	30	336	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1516	1484	1900	1721	1792	1712	1741	1900	1387	1776	1727
Adj Flow Rate, veh/h	33	23	78	22	74	34	101	384	68	33	369	44
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	33	33	28	9	9	6	11	7	7	37	7	10
Cap, veh/h	142	64	272	98	225	328	129	713	126	47	800	647
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.08	0.49	0.49	0.04	0.45	0.45
Sat Flow, veh/h	175	299	1259	82	1043	1520	1630	1441	255	1321	1776	1436
Grp Volume(v), veh/h	56	0	78	96	0	34	101	0	452	33	369	44
Grp Sat Flow(s),veh/h/ln	474	0	1259	1125	0	1520	1630	0	1696	1321	1776	1436
Q Serve(g_s), s	0.7	0.0	2.9	0.3	0.0	1.0	3.3	0.0	10.1	1.4	7.9	1.0
Cycle Q Clear(g_c), s	9.6	0.0	2.9	9.4	0.0	1.0	3.3	0.0	10.1	1.4	7.9	1.0
Prop In Lane	0.59		1.00	0.23		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	206	0	272	323	0	328	129	0	839	47	800	647
V/C Ratio(X)	0.27	0.00	0.29	0.30	0.00	0.10	0.78	0.00	0.54	0.70	0.46	0.07
Avail Cap(c_a), veh/h	599	0	686	837	0	828	888	0	1232	720	1612	1304
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	0.0	18.1	18.1	0.0	17.3	24.9	0.0	9.6	26.3	10.5	8.6
Incr Delay (d2), s/veh	0.8	0.0	0.7	0.6	0.0	0.2	11.3	0.0	1.5	20.0	1.1	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	0.9	0.0	1.0	1.3	0.0	0.4	1.9	0.0	5.0	0.8	4.0	0.4
LnGrp Delay(d),s/veh	20.0	0.0	18.7	18.7	0.0	17.5	36.1	0.0	11.1	46.3	11.6	8.7
LnGrp LOS	B		B	B		B	D		B	D	B	A
Approach Vol, veh/h		134			130			553			446	
Approach Delay, s/veh		19.2			18.4			15.7			13.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.1	32.8		16.8	8.5	30.3		16.8
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	30.0	40.0		30.0	30.0	50.0		30.0
Max Q Clear Time (g_c+I1), s	3.4	12.1		11.6	5.3	9.9		11.4
Green Ext Time (p_c), s	0.1	12.7		1.3	0.3	15.1		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	103	75	388	125	85	45	432	531	140	411	16
Future Volume (veh/h)	27	103	75	388	125	85	45	432	531	140	411	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1624	1881	1900	1845	1836	1863	1863	1792	1863	1827	1780	1900
Adj Flow Rate, veh/h	30	114	83	285	343	94	50	480	590	156	457	18
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	17	1	1	3	4	2	2	6	2	4	7	7
Cap, veh/h	147	194	130	391	409	350	65	1457	676	186	1650	65
Arrive On Green	0.10	0.10	0.10	0.22	0.22	0.22	0.04	0.43	0.43	0.11	0.50	0.50
Sat Flow, veh/h	1547	2036	1365	1757	1836	1573	1774	3406	1581	1740	3314	130
Grp Volume(v), veh/h	30	99	98	285	343	94	50	480	590	156	233	242
Grp Sat Flow(s),veh/h/ln	1547	1787	1615	1757	1836	1573	1774	1703	1581	1740	1691	1754
Q Serve(g_s), s	2.2	6.6	7.3	18.9	22.4	6.2	3.5	11.8	42.7	11.0	10.0	10.1
Cycle Q Clear(g_c), s	2.2	6.6	7.3	18.9	22.4	6.2	3.5	11.8	42.7	11.0	10.0	10.1
Prop In Lane	1.00		0.85	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	147	170	154	391	409	350	65	1457	676	186	842	873
V/C Ratio(X)	0.20	0.58	0.64	0.73	0.84	0.27	0.77	0.33	0.87	0.84	0.28	0.28
Avail Cap(c_a), veh/h	346	399	361	841	879	753	283	1630	757	486	842	873
HCM Platoon Ratio	1.00	1.00	1.00	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	52.3	54.3	54.6	45.2	46.6	40.3	59.8	23.9	32.7	54.9	18.3	18.3
Incr Delay (d2), s/veh	0.7	3.1	4.4	2.6	4.6	0.4	17.1	0.2	10.6	9.7	0.3	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	1.0	3.4	3.5	9.5	11.9	2.7	2.0	5.6	20.5	5.8	4.7	4.9
LnGrp Delay(d),s/veh	53.0	57.4	59.0	47.8	51.2	40.7	77.0	24.1	43.4	64.7	18.6	18.6
LnGrp LOS	D	E	E	D	D	D	E	C	D	E	B	B
Approach Vol, veh/h		227			722			1120			631	
Approach Delay, s/veh		57.5			48.5			36.6			30.0	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.4	58.6		16.9	8.6	67.4		32.4
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	35.0	60.0		28.0	20.0	60.0		60.0
Max Q Clear Time (g_c+I1), s	13.0	44.7		9.3	5.5	12.1		24.4
Green Ext Time (p_c), s	0.4	8.9		1.1	0.1	18.5		3.5

Intersection Summary	
HCM 2010 Ctrl Delay	40.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	749	13	17	604	525	12	16	6	257	11	93
Future Volume (veh/h)	135	749	13	17	604	525	12	16	6	257	11	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1882	1900	1792	1863	1827	1900	1675	1900	1759	1770	1776
Adj Flow Rate, veh/h	155	861	15	20	694	0	14	18	7	304	0	107
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	1	1	6	2	4	0	12	12	8	0	7
Cap, veh/h	182	1434	25	28	1105	485	527	334	130	441	0	197
Arrive On Green	0.10	0.40	0.40	0.02	0.31	0.00	0.29	0.29	0.29	0.13	0.00	0.13
Sat Flow, veh/h	1774	3595	63	1707	3539	1553	1810	1148	446	3351	0	1496
Grp Volume(v), veh/h	155	428	448	20	694	0	14	0	25	304	0	107
Grp Sat Flow(s),veh/h/ln	1774	1787	1870	1707	1770	1553	1810	0	1595	1675	0	1496
Q Serve(g_s), s	10.3	22.8	22.8	1.4	20.2	0.0	0.7	0.0	1.4	10.4	0.0	8.0
Cycle Q Clear(g_c), s	10.3	22.8	22.8	1.4	20.2	0.0	0.7	0.0	1.4	10.4	0.0	8.0
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	182	713	746	28	1105	485	527	0	464	441	0	197
V/C Ratio(X)	0.85	0.60	0.60	0.72	0.63	0.00	0.03	0.00	0.05	0.69	0.00	0.54
Avail Cap(c_a), veh/h	229	713	746	291	1325	581	527	0	464	975	0	435
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.0	28.6	28.6	58.9	35.4	0.0	30.5	0.0	30.7	49.9	0.0	48.8
Incr Delay (d2), s/veh	21.0	3.1	3.0	29.6	2.2	0.0	0.1	0.0	0.2	2.7	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	6.1	11.8	12.3	0.9	10.2	0.0	0.3	0.0	0.6	5.0	0.0	3.5
LnGrp Delay(d),s/veh	74.0	31.7	31.5	88.5	37.5	0.0	30.5	0.0	30.9	52.6	0.0	52.1
LnGrp LOS	E	C	C	F	D		C		C	D		D
Approach Vol, veh/h		1031			714			39			411	
Approach Delay, s/veh		38.0			39.0			30.8			52.5	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		40.0	6.4	53.0		20.8	16.9	42.5
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		35.0	20.5	45.0		35.0	15.5	45.0
Max Q Clear Time (g_c+I1), s		3.4	3.4	24.8		12.4	12.3	22.2
Green Ext Time (p_c), s		0.2	0.0	17.3		2.3	0.1	15.4

Intersection Summary	
HCM 2010 Ctrl Delay	40.9
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	653	429	352	1004	0	0	0	0	45	0	211
Future Volume (veh/h)	0	653	429	352	1004	0	0	0	0	45	0	211
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1810	1881	1845	0				1827	1827	1900
Adj Flow Rate, veh/h	0	734	482	396	1128	0				51	0	237
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	5	1	3	0				4	0	4
Cap, veh/h	0	1436	623	433	2499	0				313	0	280
Arrive On Green	0.00	0.41	0.41	0.24	0.71	0.00				0.18	0.00	0.18
Sat Flow, veh/h	0	3632	1535	1792	3597	0				1740	0	1553
Grp Volume(v), veh/h	0	734	482	396	1128	0				51	0	237
Grp Sat Flow(s),veh/h/ln	0	1770	1535	1792	1752	0				1740	0	1553
Q Serve(g_s), s	0.0	13.4	23.4	18.5	11.7	0.0				2.1	0.0	12.7
Cycle Q Clear(g_c), s	0.0	13.4	23.4	18.5	11.7	0.0				2.1	0.0	12.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1436	623	433	2499	0				313	0	280
V/C Ratio(X)	0.00	0.51	0.77	0.91	0.45	0.00				0.16	0.00	0.85
Avail Cap(c_a), veh/h	0	1436	623	521	2499	0				526	0	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.76	0.76	0.49	0.49	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.2	22.1	31.7	5.2	0.0				29.8	0.0	34.1
Incr Delay (d2), s/veh	0.0	1.0	7.0	9.7	0.3	0.0				0.1	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
%ile BackOfQ(50%),veh/ln	0.0	6.7	11.1	10.3	5.6	0.0				1.0	0.0	5.7
LnGrp Delay(d),s/veh	0.0	20.1	29.2	41.4	5.5	0.0				29.9	0.0	37.2
LnGrp LOS		C	C	D	A					C		D
Approach Vol, veh/h		1216			1524						288	
Approach Delay, s/veh		23.7			14.8						35.9	
Approach LOS		C			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	26.4	40.0		19.6		66.4		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	25.0	20.4		26.0		51.0		
Max Q Clear Time (g_c+I1), s	20.5	25.4		14.7		13.7		
Green Ext Time (p_c), s	0.3	0.0		0.8		14.7		

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	522	0	0	733	54	623	2	834	0	0	0
Future Volume (veh/h)	176	522	0	0	733	54	623	2	834	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1863	0	0	1863	1900	1845	1873	1881			
Adj Flow Rate, veh/h	196	580	0	0	814	60	1018	0	580			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	3	2	0	0	2	2	3	0	1			
Cap, veh/h	232	1844	0	0	1167	86	1331	0	606			
Arrive On Green	0.13	0.52	0.00	0.00	0.35	0.35	0.38	0.00	0.38			
Sat Flow, veh/h	1757	3632	0	0	3436	246	3514	0	1599			
Grp Volume(v), veh/h	196	580	0	0	431	443	1018	0	580			
Grp Sat Flow(s),veh/h/ln	1757	1770	0	0	1770	1819	1757	0	1599			
Q Serve(g_s), s	9.5	8.2	0.0	0.0	18.2	18.2	22.0	0.0	30.8			
Cycle Q Clear(g_c), s	9.5	8.2	0.0	0.0	18.2	18.2	22.0	0.0	30.8			
Prop In Lane	1.00		0.00	0.00		0.14	1.00		1.00			
Lane Grp Cap(c), veh/h	232	1844	0	0	618	635	1331	0	606			
V/C Ratio(X)	0.85	0.31	0.00	0.00	0.70	0.70	0.76	0.00	0.96			
Avail Cap(c_a), veh/h	303	1844	0	0	618	635	1333	0	607			
HCM Platoon Ratio	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	0.00	0.00	0.92	0.92	1.00	0.00	1.00			
Uniform Delay (d), s/veh	36.9	11.9	0.0	0.0	24.4	24.4	23.6	0.0	26.3			
Incr Delay (d2), s/veh	11.2	0.4	0.0	0.0	6.0	5.8	2.9	0.0	26.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.3	4.0	0.0	0.0	9.9	10.1	11.1	0.0	18.0			
LnGrp Delay(d),s/veh	48.1	12.3	0.0	0.0	30.3	30.2	26.5	0.0	52.7			
LnGrp LOS	D	B			C	C	C		D			
Approach Vol, veh/h		776			874			1598				
Approach Delay, s/veh		21.3			30.2			36.0				
Approach LOS		C			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		49.9			15.0	35.0		37.1
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		45.0			15.0	26.5		33.0
Max Q Clear Time (g_c+I1), s		10.2			11.5	20.2		32.8
Green Ext Time (p_c), s		7.7			0.1	3.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	31.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	1261	61	11	646	0	140	0	26	0	0	0
Future Volume (veh/h)	49	1261	61	11	646	0	140	0	26	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1873	1900	1583	1863	0	1845	0	1638			
Adj Flow Rate, veh/h	56	1449	70	13	743	0	161	0	30			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	1	1	20	2	0	3	0	16			
Cap, veh/h	101	2358	114	19	2265	0	211	0	167			
Arrive On Green	0.06	0.68	0.68	0.01	0.64	0.00	0.12	0.00	0.12			
Sat Flow, veh/h	1810	3453	166	1508	3632	0	1757	0	1392			
Grp Volume(v), veh/h	56	745	774	13	743	0	161	0	30			
Grp Sat Flow(s),veh/h/ln	1810	1780	1839	1508	1770	0	1757	0	1392			
Q Serve(g_s), s	2.2	16.7	16.9	0.6	7.0	0.0	6.5	0.0	1.4			
Cycle Q Clear(g_c), s	2.2	16.7	16.9	0.6	7.0	0.0	6.5	0.0	1.4			
Prop In Lane	1.00		0.09	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	101	1216	1256	19	2265	0	211	0	167			
V/C Ratio(X)	0.56	0.61	0.62	0.68	0.33	0.00	0.76	0.00	0.18			
Avail Cap(c_a), veh/h	618	1216	1256	515	2416	0	600	0	475			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.7	6.3	6.4	36.0	6.0	0.0	31.2	0.0	29.0			
Incr Delay (d2), s/veh	4.7	1.6	1.6	34.7	0.2	0.0	5.7	0.0	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			
%ile BackOfQ(50%),veh/ln	1.2	8.6	8.9	0.4	3.5	0.0	3.5	0.0	0.6			
LnGrp Delay(d),s/veh	38.4	7.9	7.9	70.7	6.2	0.0	36.9	0.0	29.5			
LnGrp LOS	D	A	A	E	A		D		C			
Approach Vol, veh/h		1575			756			191				
Approach Delay, s/veh		9.0			7.3			35.7				
Approach LOS		A			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	4.9	55.0			8.1	51.9		13.3
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	25.0	50.0			25.0	50.0		25.0
Max Q Clear Time (g_c+I1), s	2.6	18.9			4.2	9.0		8.5
Green Ext Time (p_c), s	0.0	29.3			0.1	37.9		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.5
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	16	572	979	4
Future Vol, veh/h	0	0	16	572	979	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	17	602	1031	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	518	1035	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	508	679	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	508	679	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	679	-	-	-	-
HCM Lane V/C Ratio	0.025	-	-	-	-
HCM Control Delay (s)	10.4	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	49	45	65	152	234	79
Future Vol, veh/h	49	45	65	152	234	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	370	-	220	-	-	-
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	53	49	71	165	254	86

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	521	170	340	0	-	0
Stage 1	297	-	-	-	-	-
Stage 2	224	-	-	-	-	-
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	485	844	1216	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	457	844	1216	-	-	-
Mov Cap-2 Maneuver	457	-	-	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	746	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	2.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1216	-	457	844	-	-
HCM Lane V/C Ratio	0.058	-	0.117	0.058	-	-
HCM Control Delay (s)	8.1	-	13.9	9.5	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	524	695	39	13	399	135	151	13	18	12	4	63
Future Volume (veh/h)	524	695	39	13	399	135	151	13	18	12	4	63
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	570	755	42	14	434	147	164	14	20	13	4	68
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	599	1296	72	422	759	255	210	82	117	81	25	94
Arrive On Green	0.34	0.38	0.38	0.24	0.29	0.29	0.12	0.12	0.12	0.06	0.06	0.06
Sat Flow, veh/h	1774	3409	190	1774	2604	874	1774	695	993	1372	422	1583
Grp Volume(v), veh/h	570	392	405	14	294	287	164	0	34	17	0	68
Grp Sat Flow(s),veh/h/ln	1774	1770	1829	1774	1770	1709	1774	0	1688	1794	0	1583
Q Serve(g_s), s	27.6	15.5	15.5	0.5	12.4	12.6	7.9	0.0	1.6	0.8	0.0	3.7
Cycle Q Clear(g_c), s	27.6	15.5	15.5	0.5	12.4	12.6	7.9	0.0	1.6	0.8	0.0	3.7
Prop In Lane	1.00		0.10	1.00		0.51	1.00		0.59	0.76		1.00
Lane Grp Cap(c), veh/h	599	673	695	422	516	498	210	0	200	106	0	94
V/C Ratio(X)	0.95	0.58	0.58	0.03	0.57	0.58	0.78	0.00	0.17	0.16	0.00	0.72
Avail Cap(c_a), veh/h	605	1207	1248	605	1207	1166	605	0	576	612	0	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.4	21.7	21.7	25.8	26.5	26.5	37.7	0.0	34.9	39.3	0.0	40.7
Incr Delay (d2), s/veh	25.0	2.9	2.8	0.0	3.6	3.8	6.2	0.0	0.4	0.7	0.0	10.1
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	17.6	8.0	8.3	0.3	6.5	6.4	4.2	0.0	0.8	0.4	0.0	1.9
LnGrp Delay(d),s/veh	53.5	24.6	24.5	25.8	30.0	30.3	43.9	0.0	35.3	40.0	0.0	50.7
LnGrp LOS	D	C	C	C	C	C	D		D	D		D
Approach Vol, veh/h		1367			595			198			85	
Approach Delay, s/veh		36.6			30.1			42.4			48.6	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.9	38.4		14.4	33.7	30.6		9.2
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	30.0	* 60		30.0	30.0	60.0		30.0
Max Q Clear Time (g_c+I1), s	2.5	17.5		9.9	29.6	14.6		5.7
Green Ext Time (p_c), s	9.2	15.9		0.6	0.1	11.0		0.2

Intersection Summary		
HCM 2010 Ctrl Delay		35.8
HCM 2010 LOS		D

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	153	54	534	155	54	925
Future Volume (veh/h)	153	54	534	155	54	925
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	166	59	580	168	59	1005
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	383	176	2569	976	105	2380
Arrive On Green	0.11	0.11	0.51	0.51	0.06	0.67
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	166	59	580	168	59	1005
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	1.9	1.4	2.7	1.9	1.3	5.4
Cycle Q Clear(g_c), s	1.9	1.4	2.7	1.9	1.3	5.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	383	176	2569	976	105	2380
V/C Ratio(X)	0.43	0.34	0.23	0.17	0.56	0.42
Avail Cap(c_a), veh/h	1488	685	2569	976	234	2380
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	17.3	17.1	5.8	3.4	19.0	3.1
Incr Delay (d2), s/veh	0.8	1.1	0.2	0.4	4.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.7	1.3	1.2	0.8	2.7
LnGrp Delay(d),s/veh	18.1	18.2	6.0	3.8	23.6	3.7
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	225		748			1064
Approach Delay, s/veh	18.1		5.5			4.8
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.0	25.5				32.5		9.1
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	5.5	18.0				28.0		18.0
Max Q Clear Time (g_c+I1), s	3.3	4.7				7.4		3.9
Green Ext Time (p_c), s	0.0	9.0				12.2		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	177	0	0	197	0	0
Future Vol, veh/h	177	0	0	197	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	-	-	-	-	-	-
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	192	0	0	214	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	192
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	850
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	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	
Intersection Delay, s/veh	23
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	250	494	145	228	0	213	0	46	1	0	1
Future Vol, veh/h	0	250	494	145	228	0	213	0	46	1	0	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	13	5	7	13	0	9	0	4	0	0	0
Mvmt Flow	0	278	549	161	253	0	237	0	51	1	0	1
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	28.6	15.4	18	11.3
HCM LOS	D	C	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	0%	100%	0%	50%
Vol Thru, %	0%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	100%	0%	100%	0%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	213	46	250	494	145	228	2
LT Vol	213	0	0	0	145	0	1
Through Vol	0	0	250	0	0	228	0
RT Vol	0	46	0	494	0	0	1
Lane Flow Rate	237	51	278	549	161	253	2
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.53	0.095	0.506	0.87	0.331	0.492	0.005
Departure Headway (Hd)	8.068	6.686	6.553	5.703	7.394	6.988	8.221
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	445	533	547	631	483	512	438
Service Time	5.848	4.465	4.328	3.477	5.182	4.775	6.221
HCM Lane V/C Ratio	0.533	0.096	0.508	0.87	0.333	0.494	0.005
HCM Control Delay	19.7	10.2	15.9	35.1	13.8	16.4	11.3
HCM Lane LOS	C	B	C	E	B	C	B
HCM 95th-tile Q	3	0.3	2.8	10.1	1.4	2.7	0

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	74	298	4	98	784
Future Vol, veh/h	2	74	298	4	98	784
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	9	0	1	3
Mvmt Flow	2	81	327	4	108	862

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1407	330	0	0	332	0
Stage 1	330	-	-	-	-	-
Stage 2	1077	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	155	716	-	-	1233	-
Stage 1	733	-	-	-	-	-
Stage 2	330	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	141	716	-	-	1233	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	733	-	-	-	-	-
Stage 2	301	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	647	1233	-
HCM Lane V/C Ratio	-	-	0.129	0.087	-
HCM Control Delay (s)	-	-	11.4	8.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.3	-

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	1	1	1	34	2	3	2	298	26	3	795	2
Future Vol, veh/h	1	1	1	34	2	3	2	298	26	3	795	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	-	-	30	-	-	30	105	-	210	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	1	1	1	40	2	4	2	351	31	4	935	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1300	1299	936	1299	1300	351	938	0	0	351	0	0
Stage 1	944	944	-	355	355	-	-	-	-	-	-	-
Stage 2	356	355	-	944	945	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	140	163	324	140	163	697	739	-	-	1219	-	-
Stage 1	317	344	-	666	633	-	-	-	-	-	-	-
Stage 2	666	633	-	317	343	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	137	162	324	138	162	697	739	-	-	1219	-	-
Mov Cap-2 Maneuver	137	162	-	138	162	-	-	-	-	-	-	-
Stage 1	316	343	-	664	631	-	-	-	-	-	-	-
Stage 2	658	631	-	314	342	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	25.2	39.5	0.1	0
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	739	-	-	148	324	139	697	1219	-	-
HCM Lane V/C Ratio	0.003	-	-	0.016	0.004	0.305	0.005	0.003	-	-
HCM Control Delay (s)	9.9	-	-	29.7	16.2	41.9	10.2	8	-	-
HCM Lane LOS	A	-	-	D	C	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	1.2	0	0	-	-

Intersection	
Intersection Delay, s/veh	21.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	97	22	180	103	26	10	81	157	24	5	280	99
Future Vol, veh/h	97	22	180	103	26	10	81	157	24	5	280	99
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	4	9	6	0	0	0	5	8	4	0	3	8
Mvmt Flow	120	27	222	127	32	12	100	194	30	6	346	122
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	17.1	19	18.5	27.9
HCM LOS	C	C	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	82%	0%	74%	100%	0%	0%
Vol Thru, %	0%	87%	18%	0%	19%	0%	100%	0%
Vol Right, %	0%	13%	0%	100%	7%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	81	181	119	180	139	5	280	99
LT Vol	81	0	97	0	103	5	0	0
Through Vol	0	157	22	0	26	0	280	0
RT Vol	0	24	0	180	10	0	0	99
Lane Flow Rate	100	223	147	222	172	6	346	122
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.251	0.525	0.36	0.48	0.439	0.015	0.775	0.252
Departure Headway (Hd)	9.029	8.466	8.829	7.78	9.205	8.529	8.067	7.434
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	398	427	408	464	391	420	449	484
Service Time	6.777	6.214	6.575	5.525	6.955	6.269	5.807	5.174
HCM Lane V/C Ratio	0.251	0.522	0.36	0.478	0.44	0.014	0.771	0.252
HCM Control Delay	14.8	20.2	16.5	17.5	19	11.4	33.6	12.7
HCM Lane LOS	B	C	C	C	C	B	D	B
HCM 95th-tile Q	1	3	1.6	2.6	2.2	0	6.7	1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	17	272	581	0
Future Vol, veh/h	0	9	17	272	581	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	0	12	23	368	785	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1199	785	785	0	-	0
Stage 1	785	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	207	396	843	-	-	-
Stage 1	453	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	201	396	843	-	-	-
Mov Cap-2 Maneuver	201	-	-	-	-	-
Stage 1	453	-	-	-	-	-
Stage 2	653	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	843	-	396	-	-
HCM Lane V/C Ratio	0.027	-	0.031	-	-
HCM Control Delay (s)	9.4	-	14.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	46.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	79	114	175	109	242	348
Future Vol, veh/h	79	114	175	109	242	348
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	4	2	5	4
Mvmt Flow	111	161	246	154	341	490

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1495	323	0	0	400	0
Stage 1	323	-	-	-	-	-
Stage 2	1172	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245	-
Pot Cap-1 Maneuver	137	723	-	-	1143	-
Stage 1	738	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 96	723	-	-	1143	-
Mov Cap-2 Maneuver	~ 96	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	208	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	245.3	0	3.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	197	1143	-
HCM Lane V/C Ratio	-	-	1.38	0.298	-
HCM Control Delay (s)	-	-	245.3	9.5	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	15.8	1.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	67	237	113	150	331
Future Vol, veh/h	30	67	237	113	150	331
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	0	0	3	1	0	2
Mvmt Flow	50	112	395	188	250	552

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1541	489	0	0	583	0
Stage 1	489	-	-	-	-	-
Stage 2	1052	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	128	583	-	-	1001	-
Stage 1	621	-	-	-	-	-
Stage 2	339	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	96	583	-	-	1001	-
Mov Cap-2 Maneuver	96	-	-	-	-	-
Stage 1	621	-	-	-	-	-
Stage 2	254	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.7	0	3.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	96	583	1001	-
HCM Lane V/C Ratio	-	-	0.521	0.192	0.25	-
HCM Control Delay (s)	-	-	77.6	12.6	9.8	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	2.3	0.7	1	-

Intersection	
Int Delay, s/veh	65.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	3	127	0	103	3	247	129	109	248	4
Future Vol, veh/h	0	0	3	127	0	103	3	247	129	109	248	4
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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	2	0
Mvmt Flow	0	0	4	187	0	151	4	363	190	160	365	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1231	1250	368	1157	1158	458	371	0	0	553	0	0
Stage 1	688	688	-	467	467	-	-	-	-	-	-	-
Stage 2	543	562	-	690	691	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	156	174	682	~ 175	198	607	1199	-	-	1027	-	-
Stage 1	440	450	-	580	565	-	-	-	-	-	-	-
Stage 2	528	513	-	439	449	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	103	146	682	~ 153	167	607	1199	-	-	1027	-	-
Mov Cap-2 Maneuver	103	146	-	~ 153	167	-	-	-	-	-	-	-
Stage 1	439	380	-	578	563	-	-	-	-	-	-	-
Stage 2	395	511	-	368	379	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	273.4	0.1	2.8
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1199	-	-	682	230	1027	-	-
HCM Lane V/C Ratio	0.004	-	-	0.006	1.471	0.156	-	-
HCM Control Delay (s)	8	-	-	10.3	273.4	9.2	-	-
HCM Lane LOS	A	-	-	B	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	19.9	0.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	161	60	319	304	111	267
Future Vol, veh/h	161	60	319	304	111	267
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	3	1	1	2
Mvmt Flow	218	81	431	411	150	361

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1297	636	0	0	842	0
Stage 1	636	-	-	-	-	-
Stage 2	661	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	~ 180	481	-	-	798	-
Stage 1	531	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 146	481	-	-	798	-
Mov Cap-2 Maneuver	279	-	-	-	-	-
Stage 1	531	-	-	-	-	-
Stage 2	420	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	41.6	0	3.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	279	481	798	-
HCM Lane V/C Ratio	-	-	0.78	0.169	0.188	-
HCM Control Delay (s)	-	-	51.9	14	10.6	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	6	0.6	0.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	38	56	604	448	0
Future Vol, veh/h	1	38	56	604	448	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	19	9	3	3	0
Mvmt Flow	1	51	76	816	605	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1573	605	605	0	-	0
Stage 1	605	-	-	-	-	-
Stage 2	968	-	-	-	-	-
Critical Hdwy	6.4	6.39	4.19	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.471	2.281	-	-	-
Pot Cap-1 Maneuver	123	468	940	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	113	468	940	-	-	-
Mov Cap-2 Maneuver	240	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	342	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	940	-	457	-	-
HCM Lane V/C Ratio	0.081	-	0.115	-	-
HCM Control Delay (s)	9.2	-	13.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.4	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	184	1	1	15	128	684	5	22	600	20
Future Vol, veh/h	0	0	184	1	1	15	128	684	5	22	600	20
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	2	0	0	7	3	4	0	0	6	20
Mvmt Flow	0	0	194	1	1	16	135	720	5	23	632	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	632	1670	1670	723	632	0	0	725	0	0
Stage 1	-	-	-	992	992	-	-	-	-	-	-	-
Stage 2	-	-	-	678	678	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.1	6.5	6.27	4.13	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.5	4	3.363	2.227	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	480	77	97	418	946	-	-	887	-	-
Stage 1	0	0	-	299	326	-	-	-	-	-	-	-
Stage 2	0	0	-	445	455	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	480	40	81	418	946	-	-	887	-	-
Mov Cap-2 Maneuver	-	-	-	40	81	-	-	-	-	-	-	-
Stage 1	-	-	-	256	279	-	-	-	-	-	-	-
Stage 2	-	-	-	259	443	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.5	21.8	1.5	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	946	-	-	480	232	887	-	-
HCM Lane V/C Ratio	0.142	-	-	0.404	0.077	0.026	-	-
HCM Control Delay (s)	9.4	-	-	17.5	21.8	9.2	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	1.9	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	177	1	3	195	5	4
Future Vol, veh/h	177	1	3	195	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	192	1	3	212	5	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	193	0	411	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	218	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1380	-	597	849
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	818	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1380	-	596	849
Mov Cap-2 Maneuver	-	-	-	-	650	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	816	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	726	-	-	1380	-
HCM Lane V/C Ratio	0.013	-	-	0.002	-
HCM Control Delay (s)	10	-	-	7.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	118	349	116	99	49	290	335	150	48	272	81
Future Volume (veh/h)	59	118	349	116	99	49	290	335	150	48	272	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1827	1845	1827	1815	1900	1759	1845	1845	1863	1825	1900
Adj Flow Rate, veh/h	66	133	392	130	111	55	326	376	169	54	306	91
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	4	3	4	6	6	8	3	3	2	5	5
Cap, veh/h	477	505	425	243	159	79	362	662	554	70	463	134
Arrive On Green	0.28	0.28	0.28	0.14	0.14	0.14	0.22	0.36	0.36	0.04	0.18	0.18
Sat Flow, veh/h	1723	1827	1535	1740	1139	565	1675	1845	1544	1774	2616	760
Grp Volume(v), veh/h	66	133	392	130	0	166	326	376	169	54	200	197
Grp Sat Flow(s),veh/h/ln	1723	1827	1535	1740	0	1704	1675	1845	1544	1774	1734	1642
Q Serve(g_s), s	2.7	5.3	23.4	6.5	0.0	8.7	17.8	15.5	7.4	2.8	10.1	10.5
Cycle Q Clear(g_c), s	2.7	5.3	23.4	6.5	0.0	8.7	17.8	15.5	7.4	2.8	10.1	10.5
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		0.46
Lane Grp Cap(c), veh/h	477	505	425	243	0	238	362	662	554	70	307	291
V/C Ratio(X)	0.14	0.26	0.92	0.54	0.00	0.70	0.90	0.57	0.31	0.78	0.65	0.68
Avail Cap(c_a), veh/h	512	543	456	517	0	506	445	783	656	480	736	697
HCM Platoon Ratio	1.00	1.00	1.00	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	25.6	26.6	33.1	37.7	0.0	38.6	36.0	24.3	21.7	44.8	36.1	36.2
Incr Delay (d2), s/veh	0.0	0.1	22.8	0.7	0.0	1.4	18.7	0.3	0.1	6.7	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	1.3	2.7	12.6	3.2	0.0	4.2	10.1	7.9	3.2	1.5	4.9	4.9
LnGrp Delay(d),s/veh	25.7	26.7	55.9	38.4	0.0	40.0	54.6	24.6	21.9	51.5	37.0	37.3
LnGrp LOS	C	C	E	D		D	D	C	C	D	D	D
Approach Vol, veh/h		591			296			871			451	
Approach Delay, s/veh		45.9			39.3			35.3			38.8	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.7	39.3		30.1	24.8	22.2		17.1
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	25.5	40.0		28.0	25.0	40.0		28.0
Max Q Clear Time (g_c+I1), s	4.8	17.5		25.4	19.8	12.5		10.7
Green Ext Time (p_c), s	0.0	3.5		0.5	0.5	3.6		0.7

Intersection Summary		
HCM 2010 Ctrl Delay		39.4
HCM 2010 LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	27	16	71	14	450	22	459	80	388	478	12
Future Volume (veh/h)	11	27	16	71	14	450	22	459	80	388	478	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1839	1845	1900	1845	1827	1863	1864	1900
Adj Flow Rate, veh/h	12	29	17	76	15	479	23	488	85	413	509	13
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	3	0	3	4	2	2	2
Cap, veh/h	113	244	122	396	70	768	28	619	515	411	998	25
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.02	0.34	0.34	0.23	0.55	0.55
Sat Flow, veh/h	193	944	471	1162	270	1562	1810	1845	1534	1774	1808	46
Grp Volume(v), veh/h	58	0	0	91	0	479	23	488	85	413	0	522
Grp Sat Flow(s),veh/h/ln	1608	0	0	1432	0	1562	1810	1845	1534	1774	0	1854
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	15.6	0.9	16.5	2.7	16.0	0.0	12.1
Cycle Q Clear(g_c), s	1.7	0.0	0.0	3.1	0.0	15.6	0.9	16.5	2.7	16.0	0.0	12.1
Prop In Lane	0.21		0.29	0.84		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	479	0	0	466	0	768	28	619	515	411	0	1023
V/C Ratio(X)	0.12	0.00	0.00	0.20	0.00	0.62	0.82	0.79	0.17	1.00	0.00	0.51
Avail Cap(c_a), veh/h	525	0	0	479	0	782	419	962	800	411	0	1023
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.6	0.0	0.0	20.0	0.0	12.9	33.9	20.7	16.1	26.5	0.0	9.6
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	1.5	19.0	2.4	0.1	45.5	0.0	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	0.9	0.0	0.0	1.4	0.0	7.0	0.6	8.8	1.2	13.0	0.0	6.2
LnGrp Delay(d),s/veh	19.7	0.0	0.0	20.2	0.0	14.4	52.9	23.1	16.3	72.1	0.0	10.1
LnGrp LOS	B			C		B	D	C	B	F		B
Approach Vol, veh/h		58			570			596			935	
Approach Delay, s/veh		19.7			15.4			23.3			37.5	
Approach LOS		B			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.0	27.2		21.9	5.1	42.1		21.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	16.0	36.0		20.0	16.0	36.0		18.5
Max Q Clear Time (g_c+I1), s	18.0	18.5		3.7	2.9	14.1		17.6
Green Ext Time (p_c), s	0.0	4.7		2.5	0.0	7.3		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	49	76	105	35	60	105	444	126	46	191	333
Future Volume (veh/h)	59	49	76	105	35	60	105	444	126	46	191	333
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1869	1900	1881	1876	1900	1827	1853	1900	1900	1845	1863
Adj Flow Rate, veh/h	63	52	81	112	37	64	112	472	134	49	203	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	0	0	4	3	3	0	3	2
Cap, veh/h	136	112	220	250	86	149	158	816	230	96	486	417
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.09	0.30	0.30	0.05	0.26	0.00
Sat Flow, veh/h	997	823	1615	1792	618	1069	1740	2713	765	1810	1845	1583
Grp Volume(v), veh/h	115	0	81	112	0	101	112	305	301	49	203	0
Grp Sat Flow(s),veh/h/ln	1819	0	1615	1792	0	1688	1740	1760	1718	1810	1845	1583
Q Serve(g_s), s	2.3	0.0	1.8	2.2	0.0	2.1	2.4	5.7	5.7	1.0	3.5	0.0
Cycle Q Clear(g_c), s	2.3	0.0	1.8	2.2	0.0	2.1	2.4	5.7	5.7	1.0	3.5	0.0
Prop In Lane	0.55		1.00	1.00		0.63	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	248	0	220	250	0	235	158	529	517	96	486	417
V/C Ratio(X)	0.46	0.00	0.37	0.45	0.00	0.43	0.71	0.58	0.58	0.51	0.42	0.00
Avail Cap(c_a), veh/h	1413	0	1255	1160	0	1092	901	1823	1779	937	1911	1640
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	15.4	0.0	15.2	15.2	0.0	15.2	17.1	11.4	11.4	17.8	11.8	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.4	0.5	0.0	0.5	2.2	0.5	0.6	1.6	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	1.2	0.0	0.8	1.1	0.0	1.0	1.2	2.8	2.8	0.5	1.8	0.0
LnGrp Delay(d),s/veh	15.9	0.0	15.5	15.7	0.0	15.7	19.3	12.0	12.0	19.4	12.1	0.0
LnGrp LOS	B		B	B		B	B	B	B	B	B	
Approach Vol, veh/h		196			213			718			252	
Approach Delay, s/veh		15.7			15.7			13.1			13.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	15.3		8.8	6.5	13.9		9.5
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	20.0	40.0		30.0	20.0	40.0		25.0
Max Q Clear Time (g_c+I1), s	3.0	7.7		4.3	4.4	5.5		4.2
Green Ext Time (p_c), s	0.0	3.9		0.5	0.1	3.9		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	30.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	122	426	249	88	123	249
Future Vol, veh/h	122	426	249	88	123	249
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	93	93	93	93	93	93
Heavy Vehicles, %	1	3	3	2	4	1
Mvmt Flow	131	458	268	95	132	268

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	800	268	0	0	268	0
Stage 1	268	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Critical Hdwy	6.41	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	356	768	-	-	1284	-
Stage 1	779	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	313	768	-	-	1284	-
Mov Cap-2 Maneuver	313	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	519	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	68.2	0	2.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	580	1284	-
HCM Lane V/C Ratio	-	-	1.016	0.103	-
HCM Control Delay (s)	-	-	68.2	8.1	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	15.5	0.3	-

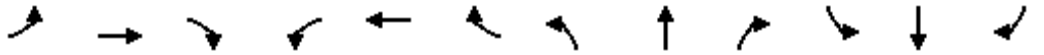
Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	122	31	51	131	43	82
Future Vol, veh/h	122	31	51	131	43	82
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, %	1	3	2	6	5	4
Mvmt Flow	133	34	55	142	47	89

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	166	0	402	149
Stage 1	-	-	-	-	149	-
Stage 2	-	-	-	-	253	-
Critical Hdwy	-	-	4.12	-	6.45	6.24
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.336
Pot Cap-1 Maneuver	-	-	1412	-	598	892
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	782	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1412	-	573	892
Mov Cap-2 Maneuver	-	-	-	-	573	-
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	749	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	749	-	-	1412	-
HCM Lane V/C Ratio	0.181	-	-	0.039	-
HCM Control Delay (s)	10.9	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	265	168	290	273	44	137	687	264	23	450	96
Future Volume (veh/h)	113	265	168	290	273	44	137	687	264	23	450	96
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1827	1845	1845	1863	1810	1810	1881	1845	1743	1863	1810
Adj Flow Rate, veh/h	127	298	189	326	307	49	154	772	297	26	506	108
Adj No. of Lanes	1	1	1	2	1	1	1	1	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	1	4	3	3	2	5	5	1	3	9	2	5
Cap, veh/h	160	431	370	419	502	406	189	784	846	34	611	505
Arrive On Green	0.09	0.24	0.24	0.12	0.27	0.27	0.11	0.42	0.42	0.02	0.33	0.33
Sat Flow, veh/h	1792	1827	1568	3408	1863	1505	1723	1881	1568	1660	1863	1538
Grp Volume(v), veh/h	127	298	189	326	307	49	154	772	297	26	506	108
Grp Sat Flow(s),veh/h/ln	1792	1827	1568	1704	1863	1505	1723	1881	1568	1660	1863	1538
Q Serve(g_s), s	6.8	14.6	10.3	9.1	14.2	2.4	8.6	39.9	10.6	1.5	24.6	5.0
Cycle Q Clear(g_c), s	6.8	14.6	10.3	9.1	14.2	2.4	8.6	39.9	10.6	1.5	24.6	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	160	431	370	419	502	406	189	784	846	34	611	505
V/C Ratio(X)	0.79	0.69	0.51	0.78	0.61	0.12	0.82	0.98	0.35	0.76	0.83	0.21
Avail Cap(c_a), veh/h	365	558	479	867	664	536	438	784	846	338	664	548
HCM Platoon Ratio	1.00	1.00	1.00	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	43.9	34.3	32.6	41.8	31.4	27.1	42.8	28.3	12.8	47.9	30.4	23.8
Incr Delay (d2), s/veh	8.6	4.5	2.3	3.2	2.6	0.3	8.3	28.3	0.5	28.1	9.4	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	3.8	7.9	4.7	4.5	7.6	1.0	4.5	26.7	4.7	1.0	14.2	2.2
LnGrp Delay(d),s/veh	52.5	38.8	34.9	44.9	33.9	27.4	51.1	56.6	13.4	75.9	39.8	24.3
LnGrp LOS	D	D	C	D	C	C	D	E	B	E	D	C
Approach Vol, veh/h		614			682			1223			640	
Approach Delay, s/veh		40.4			38.7			45.4			38.7	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	46.5	16.6	28.7	15.3	37.7	13.3	32.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	20.0	40.0	25.0	30.0	25.0	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s	3.5	41.9	11.1	16.6	10.6	26.6	8.8	16.2
Green Ext Time (p_c), s	0.0	0.0	1.0	6.5	0.3	5.6	0.2	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	41.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	142	112	0	109	0	981	116	106	802	0
Future Volume (vph)	0	0	142	112	0	109	0	981	116	106	802	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1589	1770		1553		3539	1615	1787	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1589	1770		1553		3539	1615	1787	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	148	117	0	114	0	1022	121	110	835	0
RTOR Reduction (vph)	0	0	141	0	0	88	0	0	53	0	0	0
Lane Group Flow (vph)	0	0	7	117	0	26	0	1022	68	110	835	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			2.9	5.5		12.9		26.8	32.3	4.3	35.1	
Effective Green, g (s)			2.9	5.5		12.9		26.8	32.3	4.3	35.1	
Actuated g/C Ratio			0.05	0.10		0.22		0.47	0.56	0.07	0.61	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			80	169		348		1649	907	133	2160	
v/s Ratio Prot				c0.07				c0.29	0.01	c0.06	0.24	
v/s Ratio Perm			0.00			c0.02			0.03			
v/c Ratio			0.09	0.69		0.07		0.62	0.07	0.83	0.39	
Uniform Delay, d1			26.0	25.2		17.6		11.5	5.8	26.2	5.7	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.5	11.6		0.1		0.8	0.0	31.2	0.2	
Delay (s)			26.6	36.8		17.7		12.3	5.8	57.5	5.9	
Level of Service			C	D		B		B	A	E	A	
Approach Delay (s)		26.6			27.4			11.6			11.9	
Approach LOS		C			C			B			B	

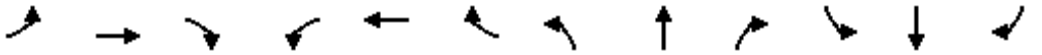
Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	57.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	50.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	26	288	107	24	33	218	1143	69	61	1179	89
Future Volume (veh/h)	176	26	288	107	24	33	218	1143	69	61	1179	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1863	1863	1863	1881
Adj Flow Rate, veh/h	187	28	306	114	26	35	232	1216	73	65	1254	95
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	1
Cap, veh/h	226	262	391	145	185	154	272	1966	879	85	1577	703
Arrive On Green	0.12	0.14	0.14	0.08	0.10	0.10	0.16	0.56	0.56	0.05	0.45	0.45
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	3539	1582	1774	3539	1577
Grp Volume(v), veh/h	187	28	306	114	26	35	232	1216	73	65	1254	95
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1770	1582	1774	1770	1577
Q Serve(g_s), s	10.0	1.3	10.8	6.3	1.3	2.1	13.0	23.2	2.1	3.6	30.3	3.5
Cycle Q Clear(g_c), s	10.0	1.3	10.8	6.3	1.3	2.1	13.0	23.2	2.1	3.6	30.3	3.5
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	226	262	391	145	185	154	272	1966	879	85	1577	703
V/C Ratio(X)	0.83	0.11	0.78	0.78	0.14	0.23	0.85	0.62	0.08	0.77	0.80	0.14
Avail Cap(c_a), veh/h	545	550	823	529	550	459	779	1966	879	356	1777	792
HCM Platoon Ratio	1.00	1.00	1.00	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	42.5	37.1	41.2	44.8	40.8	41.2	40.8	15.0	10.3	46.9	23.7	16.3
Incr Delay (d2), s/veh	7.5	0.2	3.4	8.9	0.3	0.7	7.5	0.9	0.1	13.4	2.9	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	5.5	0.7	4.2	3.4	0.7	0.9	6.8	11.4	1.0	2.1	15.4	1.6
LnGrp Delay(d),s/veh	50.1	37.3	44.6	53.7	41.2	41.9	48.3	15.9	10.4	60.2	26.6	16.5
LnGrp LOS	D	D	D	D	D	D	D	B	B	E	C	B
Approach Vol, veh/h		521			175			1521			1414	
Approach Delay, s/veh		46.2			49.5			20.5			27.5	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	60.3	12.2	18.3	19.7	49.4	16.4	14.1
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	5.6	25.2	8.3	12.8	15.0	32.3	12.0	4.1
Green Ext Time (p_c), s	0.1	23.8	0.3	1.5	0.7	12.1	0.5	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

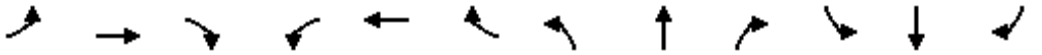


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	0	113	456	104	348	272	1046	262	0	1470	94
Future Volume (veh/h)	77	0	113	456	104	348	272	1046	262	0	1470	94
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1863	1845	1833	1810	1881	1845	1863	0	1792	1881
Adj Flow Rate, veh/h	82	0	120	485	305	240	289	1113	279	0	1564	100
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	3	2	5	1	3	2	0	6	1
Cap, veh/h	106	0	0	562	350	294	323	2980	937	0	1789	585
Arrive On Green	0.06	0.00	0.00	0.16	0.19	0.19	0.18	0.59	0.59	0.00	0.37	0.37
Sat Flow, veh/h	1810	82		3514	1833	1538	1792	5036	1583	0	5055	1599
Grp Volume(v), veh/h	82	47.2		485	305	240	289	1113	279	0	1564	100
Grp Sat Flow(s),veh/h/ln	1810	D		1757	1833	1538	1792	1679	1583	0	1631	1599
Q Serve(g_s), s	4.1			12.4	14.8	13.7	14.5	10.6	8.0	0.0	27.4	3.9
Cycle Q Clear(g_c), s	4.1			12.4	14.8	13.7	14.5	10.6	8.0	0.0	27.4	3.9
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	106			562	350	294	323	2980	937	0	1789	585
V/C Ratio(X)	0.77			0.86	0.87	0.82	0.89	0.37	0.30	0.00	0.87	0.17
Avail Cap(c_a), veh/h	394			2274	698	586	585	3791	1192	0	1863	609
HCM Platoon Ratio	1.00			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
Uniform Delay (d), s/veh	42.7			37.6	36.1	35.6	36.8	9.8	9.3	0.0	27.2	19.7
Incr Delay (d2), s/veh	4.5			1.6	2.7	2.1	3.5	0.0	0.1	0.0	4.6	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
%ile BackOfQ(50%),veh/ln	2.2			6.1	7.8	6.0	7.5	4.9	3.5	0.0	13.1	1.7
LnGrp Delay(d),s/veh	47.2			39.2	38.7	37.8	40.3	9.9	9.4	0.0	31.8	19.8
LnGrp LOS	D			D	D	D	D	A	A		C	B
Approach Vol, veh/h					1030			1681			1664	
Approach Delay, s/veh					38.7			15.0			31.0	
Approach LOS					D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		60.1	19.1		20.8	39.3	9.5	22.4
Change Period (Y+Rc), s		5.7	4.4		* 4.2	5.7	4.1	4.8
Max Green Setting (Gmax), s		69.2	59.5		* 30	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s		12.6	14.4		16.5	29.4	6.1	16.8
Green Ext Time (p_c), s		13.6	0.4		0.1	4.2	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	493	225	60	105	0	311	0	1317	88	280	800	509
Future Volume (veh/h)	493	225	60	105	0	311	0	1317	88	280	800	509
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1881	0	1881	0	1827	1900	1881	1845	1881
Adj Flow Rate, veh/h	519	237	63	111	0	327	0	1386	93	295	842	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	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	0	2	1	0	1	0	4	0	1	3	1
Cap, veh/h	695	387	170	181	0	0	0	2302	591	413	1951	890
Arrive On Green	0.20	0.11	0.11	0.10	0.00	0.00	0.00	0.37	0.37	0.12	0.56	0.00
Sat Flow, veh/h	3442	3610	1583	1792	111		0	6540	1615	3476	3505	1599
Grp Volume(v), veh/h	519	237	63	111	26.0		0	1386	93	295	842	0
Grp Sat Flow(s),veh/h/ln	1721	1805	1583	1792	C		0	1571	1615	1738	1752	1599
Q Serve(g_s), s	8.1	3.6	2.1	3.4			0.0	10.3	2.2	4.7	8.0	0.0
Cycle Q Clear(g_c), s	8.1	3.6	2.1	3.4			0.0	10.3	2.2	4.7	8.0	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	695	387	170	181			0	2302	591	413	1951	890
V/C Ratio(X)	0.75	0.61	0.37	0.61			0.00	0.60	0.16	0.71	0.43	0.00
Avail Cap(c_a), veh/h	2998	2201	965	1248			0	4927	1266	1514	4524	2064
HCM Platoon Ratio	1.00	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	0.00
Uniform Delay (d), s/veh	21.5	24.5	23.8	24.7			0.0	14.8	12.2	24.3	7.4	0.0
Incr Delay (d2), s/veh	1.2	0.6	0.5	1.2			0.0	0.1	0.0	0.9	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
%ile BackOfQ(50%),veh/ln	3.9	1.8	1.0	1.7			0.0	4.4	1.0	2.3	3.9	0.0
LnGrp Delay(d),s/veh	22.7	25.1	24.3	26.0			0.0	14.9	12.3	25.2	7.5	0.0
LnGrp LOS	C	C	C	C				B	B	C	A	
Approach Vol, veh/h		819						1479			1137	
Approach Delay, s/veh		23.5						14.7			12.1	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	10.9	26.7	9.5	10.2		37.6	15.7	
Change Period (Y+Rc), s	4.1	5.7	3.7	4.1		5.7	4.1	
Max Green Setting (Gmax), s	25.0	45.0	40.0	35.0		74.1	50.0	
Max Q Clear Time (g_c+I1), s	6.7	12.3	5.4	5.6		10.0	10.1	
Green Ext Time (p_c), s	0.2	8.7	0.0	0.6		9.2	1.5	

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	94	1313	64	0	965
Future Volume (Veh/h)	0	94	1313	64	0	965
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	102	1427	70	0	1049
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			443			404
pX, platoon unblocked	0.93	0.89			0.89	
vC, conflicting volume	1988	393			1498	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	998	0			926	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	89			100	
cM capacity (veh/h)	226	964			662	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	102	408	408	408	274	524	524
Volume Left	0	0	0	0	0	0	0
Volume Right	102	0	0	0	70	0	0
cSH	964	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.11	0.24	0.24	0.24	0.16	0.31	0.31
Queue Length 95th (ft)	9	0	0	0	0	0	0
Control Delay (s)	9.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						
Approach Delay (s)	9.2	0.0				0.0	
Approach LOS	A						

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	1	75	0	11	2	1361	56	26	940	1
Future Volume (veh/h)	5	0	1	75	0	11	2	1361	56	26	940	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1776	1900	1900	1900	1863	1863	1696	1881	1900
Adj Flow Rate, veh/h	5	0	1	82	0	12	2	1479	61	28	1022	1
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	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
Percent Heavy Veh, %	0	0	0	7	0	0	0	2	2	12	1	0
Cap, veh/h	12	0	2	162	84	71	5	3531	1099	46	2573	1162
Arrive On Green	0.01	0.00	0.00	0.05	0.00	0.04	0.00	0.69	0.69	0.03	0.72	0.72
Sat Flow, veh/h	1810	0	1615	3281	1900	1615	1810	5085	1582	1616	3574	1614
Grp Volume(v), veh/h	5	0	1	82	0	12	2	1479	61	28	1022	1
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1640	1900	1615	1810	1695	1582	1616	1787	1614
Q Serve(g_s), s	0.2	0.0	0.1	2.1	0.0	0.6	0.1	11.0	1.1	1.5	9.8	0.0
Cycle Q Clear(g_c), s	0.2	0.0	0.1	2.1	0.0	0.6	0.1	11.0	1.1	1.5	9.8	0.0
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	12	0	2	162	84	71	5	3531	1099	46	2573	1162
V/C Ratio(X)	0.42	0.00	0.45	0.51	0.00	0.17	0.41	0.42	0.06	0.61	0.40	0.00
Avail Cap(c_a), veh/h	622	0	740	1127	870	740	622	3531	1099	1110	3683	1663
HCM Platoon Ratio	1.00	1.00	1.00	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	43.2	0.0	43.6	40.5	0.0	40.2	43.5	5.8	4.2	42.0	4.8	3.4
Incr Delay (d2), s/veh	22.2	0.0	117.9	2.4	0.0	1.3	46.4	0.1	0.0	12.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	1.0	0.0	0.3	0.1	5.1	0.5	0.8	4.7	0.0
LnGrp Delay(d),s/veh	65.4	0.0	161.5	42.9	0.0	41.5	89.9	5.9	4.3	54.6	4.9	3.4
LnGrp LOS	E		F	D		D	F	A	A	D	A	A
Approach Vol, veh/h		6			94			1542			1051	
Approach Delay, s/veh		81.4			42.7			5.9			6.2	
Approach LOS		F			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	66.4	8.8	5.1	4.7	68.7	5.1	8.9
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	60.0	60.0	30.0	40.0	30.0	90.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	3.5	13.0	4.1	2.1	2.1	11.8	2.2	2.6
Green Ext Time (p_c), s	0.1	36.2	0.2	0.0	0.0	51.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.5
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	119	74	26	1211	903	67
Future Volume (veh/h)	119	74	26	1211	903	67
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1863	1865	1900
Adj Flow Rate, veh/h	125	78	27	1275	951	71
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2
Cap, veh/h	284	130	52	2779	3373	251
Arrive On Green	0.08	0.08	0.03	0.79	0.70	0.70
Sat Flow, veh/h	3510	1615	1810	3632	5004	360
Grp Volume(v), veh/h	125	78	27	1275	667	355
Grp Sat Flow(s),veh/h/ln	1755	1615	1810	1770	1697	1801
Q Serve(g_s), s	2.6	3.6	1.1	9.2	5.6	5.7
Cycle Q Clear(g_c), s	2.6	3.6	1.1	9.2	5.6	5.7
Prop In Lane	1.00	1.00	1.00			0.20
Lane Grp Cap(c), veh/h	284	130	52	2779	2368	1257
V/C Ratio(X)	0.44	0.60	0.52	0.46	0.28	0.28
Avail Cap(c_a), veh/h	1844	849	951	4858	2676	1420
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	33.4	33.8	36.5	2.7	4.3	4.3
Incr Delay (d2), s/veh	1.1	4.3	7.9	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.7	0.7	4.5	2.6	2.8
LnGrp Delay(d),s/veh	34.4	38.1	44.4	2.9	4.4	4.5
LnGrp LOS	C	D	D	A	A	A
Approach Vol, veh/h	203			1302	1022	
Approach Delay, s/veh	35.8			3.7	4.4	
Approach LOS	D			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		10.6	6.7	58.8				65.5
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		40.0	40.0	60.0				104.5
Max Q Clear Time (g_c+I1), s		5.6	3.1	7.7				11.2
Green Ext Time (p_c), s		0.7	0.0	35.1				48.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	301	343	51	221	134	307	921	43	147	678	167
Future Volume (veh/h)	230	301	343	51	221	134	307	921	43	147	678	167
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1845	1900	1900	1810	1900	1863	1863	1900	1863	1863	1845
Adj Flow Rate, veh/h	247	324	369	55	238	144	330	990	46	158	729	180
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	3	0	0	5	5	2	2	2	2	2	3
Cap, veh/h	282	1306	597	73	531	308	458	1079	50	190	1463	441
Arrive On Green	0.16	0.37	0.37	0.04	0.26	0.26	0.13	0.31	0.31	0.11	0.29	0.29
Sat Flow, veh/h	1792	3505	1602	1810	2077	1204	3442	3443	160	1774	5085	1534
Grp Volume(v), veh/h	247	324	369	55	195	187	330	509	527	158	729	180
Grp Sat Flow(s),veh/h/ln	1792	1752	1602	1810	1719	1562	1721	1770	1833	1774	1695	1534
Q Serve(g_s), s	15.4	7.3	21.5	3.4	10.9	11.6	10.5	31.7	31.7	10.0	13.6	10.8
Cycle Q Clear(g_c), s	15.4	7.3	21.5	3.4	10.9	11.6	10.5	31.7	31.7	10.0	13.6	10.8
Prop In Lane	1.00		1.00	1.00		0.77	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	282	1306	597	73	440	399	458	555	575	190	1463	441
V/C Ratio(X)	0.88	0.25	0.62	0.76	0.44	0.47	0.72	0.92	0.92	0.83	0.50	0.41
Avail Cap(c_a), veh/h	470	1533	701	712	752	683	1204	555	575	466	2002	604
HCM Platoon Ratio	1.00	1.00	1.00	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	47.1	24.8	29.2	54.3	35.7	36.0	47.5	37.8	37.8	50.0	33.9	32.9
Incr Delay (d2), s/veh	9.9	0.4	3.8	14.6	1.0	1.2	4.5	21.8	21.3	8.9	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	8.4	3.6	10.1	2.0	5.3	5.1	5.3	18.8	19.4	5.3	6.4	4.7
LnGrp Delay(d),s/veh	57.0	25.1	33.0	68.8	36.7	37.2	52.0	59.6	59.1	58.9	34.2	33.7
LnGrp LOS	E	C	C	E	D	D	D	E	E	E	C	C
Approach Vol, veh/h		940			437			1366			1067	
Approach Delay, s/veh		36.6			41.0			57.6			37.8	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	40.8	8.6	48.6	19.2	37.9	22.0	35.2
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	30.0	30.0	45.0	50.0	40.0	45.0	30.0	50.0
Max Q Clear Time (g_c+I1), s	12.0	33.7	5.4	23.5	12.5	15.6	17.4	13.6
Green Ext Time (p_c), s	0.4	0.0	0.1	13.4	2.7	17.3	0.6	15.7

Intersection Summary	
HCM 2010 Ctrl Delay	45.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	34	119	69	34	32	45	573	64	20	466	12
Future Volume (veh/h)	50	34	119	69	34	32	45	573	64	20	466	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1733	1845	1900	1743	1792	1681	1846	1900	1900	1827	1624
Adj Flow Rate, veh/h	55	37	131	76	37	35	49	630	70	22	512	13
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	12	12	3	9	9	6	13	3	3	0	4	17
Cap, veh/h	66	27	542	69	20	526	64	765	85	43	827	611
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.04	0.47	0.47	0.02	0.45	0.45
Sat Flow, veh/h	0	78	1566	0	57	1521	1601	1633	181	1810	1827	1350
Grp Volume(v), veh/h	92	0	131	113	0	35	49	0	700	22	512	13
Grp Sat Flow(s),veh/h/ln	78	0	1566	57	0	1521	1601	0	1814	1810	1827	1350
Q Serve(g_s), s	0.0	0.0	5.2	0.0	0.0	1.3	2.6	0.0	28.9	1.0	18.5	0.5
Cycle Q Clear(g_c), s	30.0	0.0	5.2	30.0	0.0	1.3	2.6	0.0	28.9	1.0	18.5	0.5
Prop In Lane	0.60		1.00	0.67		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	93	0	542	89	0	526	64	0	850	43	827	611
V/C Ratio(X)	0.99	0.00	0.24	1.27	0.00	0.07	0.77	0.00	0.82	0.51	0.62	0.02
Avail Cap(c_a), veh/h	93	0	542	89	0	526	554	0	850	626	1054	779
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	0.0	20.2	36.9	0.0	19.0	41.2	0.0	19.9	41.8	18.1	13.1
Incr Delay (d2), s/veh	88.7	0.0	0.3	183.9	0.0	0.1	19.6	0.0	7.7	10.6	2.1	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	4.5	0.0	2.3	6.7	0.0	0.6	1.5	0.0	16.2	0.6	9.7	0.2
LnGrp Delay(d),s/veh	123.4	0.0	20.5	220.8	0.0	19.0	60.8	0.0	27.6	52.4	20.1	13.2
LnGrp LOS	F		C	F		B	E		C	D	C	B
Approach Vol, veh/h		223			148			749			547	
Approach Delay, s/veh		63.0			173.1			29.8			21.3	
Approach LOS		E			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.2	46.0		34.5	7.6	44.6		34.5
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	30.0	40.0		30.0	30.0	50.0		30.0
Max Q Clear Time (g_c+I1), s	3.0	30.9		32.0	4.6	20.5		32.0
Green Ext Time (p_c), s	0.0	7.4		0.0	0.1	18.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	85	22	651	120	208	43	603	520	99	612	33
Future Volume (veh/h)	35	85	22	651	120	208	43	603	520	99	612	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1841	1900	1881	1870	1900	1900	1845	1881	1900	1860	1900
Adj Flow Rate, veh/h	37	90	23	784	0	221	46	641	553	105	651	35
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	1	3	0	0	3	1	0	2	2
Cap, veh/h	120	191	47	928	0	416	60	1556	709	133	1650	89
Arrive On Green	0.07	0.07	0.07	0.26	0.00	0.26	0.03	0.44	0.44	0.07	0.48	0.48
Sat Flow, veh/h	1740	2771	682	3583	0	1606	1810	3505	1597	1810	3407	183
Grp Volume(v), veh/h	37	56	57	784	0	221	46	641	553	105	337	349
Grp Sat Flow(s),veh/h/ln	1740	1749	1703	1792	0	1606	1810	1752	1597	1810	1767	1823
Q Serve(g_s), s	2.4	3.7	3.9	24.8	0.0	14.2	3.0	14.9	35.2	6.8	14.6	14.6
Cycle Q Clear(g_c), s	2.4	3.7	3.9	24.8	0.0	14.2	3.0	14.9	35.2	6.8	14.6	14.6
Prop In Lane	1.00		0.40	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	120	120	117	928	0	416	60	1556	709	133	856	883
V/C Ratio(X)	0.31	0.46	0.49	0.85	0.00	0.53	0.76	0.41	0.78	0.79	0.39	0.39
Avail Cap(c_a), veh/h	407	409	398	1796	0	805	302	1757	801	529	886	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	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	53.6	53.7	42.1	0.0	38.1	57.4	22.6	28.3	54.5	19.7	19.7
Incr Delay (d2), s/veh	1.4	2.7	3.1	2.2	0.0	1.1	18.0	0.2	4.9	9.8	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	1.2	1.9	1.9	12.6	0.0	6.4	1.8	7.3	16.5	3.8	7.2	7.5
LnGrp Delay(d),s/veh	54.4	56.3	56.8	44.3	0.0	39.2	75.4	22.9	33.2	64.4	20.1	20.1
LnGrp LOS	D	E	E	D		D	E	C	C	E	C	C
Approach Vol, veh/h		150			1005			1240			791	
Approach Delay, s/veh		56.0			43.2			29.4			26.0	
Approach LOS		E			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.8	58.1		13.2	8.0	63.0		35.5
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	35.0	60.0		28.0	20.0	60.0		60.0
Max Q Clear Time (g_c+I1), s	8.8	37.2		5.9	5.0	16.6		26.8
Green Ext Time (p_c), s	0.3	15.9		0.6	0.1	24.0		4.1

Intersection Summary		
HCM 2010 Ctrl Delay		34.2
HCM 2010 LOS		C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	654	14	36	852	417	49	19	11	470	19	226
Future Volume (veh/h)	183	654	14	36	852	417	49	19	11	470	19	226
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1882	1900	1845	1881	1776	1900	1900	1900	1863	1866	1900
Adj Flow Rate, veh/h	191	681	15	38	888	0	51	20	11	504	0	235
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	1	1	3	1	7	0	0	0	2	0	0
Cap, veh/h	209	1359	30	49	1045	441	472	300	165	660	0	299
Arrive On Green	0.12	0.38	0.38	0.03	0.29	0.00	0.26	0.26	0.26	0.19	0.00	0.19
Sat Flow, veh/h	1810	3576	79	1757	3574	1509	1810	1151	633	3548	0	1605
Grp Volume(v), veh/h	191	340	356	38	888	0	51	0	31	504	0	235
Grp Sat Flow(s),veh/h/ln	1810	1788	1867	1757	1787	1509	1810	0	1785	1774	0	1605
Q Serve(g_s), s	14.0	19.6	19.6	2.9	31.4	0.0	2.9	0.0	1.8	18.1	0.0	18.7
Cycle Q Clear(g_c), s	14.0	19.6	19.6	2.9	31.4	0.0	2.9	0.0	1.8	18.1	0.0	18.7
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	209	679	710	49	1045	441	472	0	465	660	0	299
V/C Ratio(X)	0.91	0.50	0.50	0.78	0.85	0.00	0.11	0.00	0.07	0.76	0.00	0.79
Avail Cap(c_a), veh/h	209	679	710	268	1198	506	472	0	465	925	0	418
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.7	31.9	31.9	64.8	44.7	0.0	37.8	0.0	37.3	51.8	0.0	52.1
Incr Delay (d2), s/veh	39.4	2.1	2.0	22.6	7.8	0.0	0.5	0.0	0.3	3.2	0.0	8.1
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	9.3	10.0	10.5	1.7	16.7	0.0	1.5	0.0	0.9	9.2	0.0	9.0
LnGrp Delay(d),s/veh	98.1	33.9	33.9	87.5	52.5	0.0	38.2	0.0	37.6	55.0	0.0	60.2
LnGrp LOS	F	C	C	F	D		D		D	D		E
Approach Vol, veh/h		887			926			82			739	
Approach Delay, s/veh		47.7			53.9			38.0			56.6	
Approach LOS		D			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		40.0	8.2	56.0		30.0	20.0	44.3
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		35.0	20.5	45.0		35.0	15.5	45.0
Max Q Clear Time (g_c+I1), s		4.9	4.9	21.6		20.7	16.0	33.4
Green Ext Time (p_c), s		0.3	0.0	19.8		3.7	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	52.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	683	472	541	1070	0	0	0	0	43	3	296
Future Volume (veh/h)	0	683	472	541	1070	0	0	0	0	43	3	296
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1881	1863	1863	1827	0				1900	1863	1900
Adj Flow Rate, veh/h	0	719	497	569	1126	0				45	3	312
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	1	2	2	4	0				0	0	0
Cap, veh/h	0	1008	445	597	2356	0				403	3	349
Arrive On Green	0.00	0.28	0.28	0.34	0.68	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	3668	1578	1774	3563	0				1810	15	1571
Grp Volume(v), veh/h	0	719	497	569	1126	0				45	0	315
Grp Sat Flow(s),veh/h/ln	0	1787	1578	1774	1736	0				1810	0	1586
Q Serve(g_s), s	0.0	16.8	26.2	29.1	14.4	0.0				1.8	0.0	17.9
Cycle Q Clear(g_c), s	0.0	16.8	26.2	29.1	14.4	0.0				1.8	0.0	17.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1008	445	597	2356	0				403	0	353
V/C Ratio(X)	0.00	0.71	1.12	0.95	0.48	0.00				0.11	0.00	0.89
Avail Cap(c_a), veh/h	0	1008	445	610	2356	0				506	0	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.77	0.77	0.38	0.38	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.0	33.4	30.2	7.1	0.0				28.8	0.0	35.1
Incr Delay (d2), s/veh	0.0	3.3	73.7	12.8	0.3	0.0				0.0	0.0	15.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.8	20.5	16.3	6.8	0.0				0.9	0.0	9.4
LnGrp Delay(d),s/veh	0.0	33.3	107.1	43.0	7.4	0.0				28.9	0.0	50.2
LnGrp LOS		C	F	D	A					C		D
Approach Vol, veh/h		1216			1695						360	
Approach Delay, s/veh		63.5			19.3						47.5	
Approach LOS		E			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	36.9	31.3		24.8		68.2		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	32.0	20.4		26.0		58.0		
Max Q Clear Time (g_c+I1), s	31.1	28.2		19.9		16.4		
Green Ext Time (p_c), s	0.1	0.0		0.8		15.1		

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	524	0	0	1104	99	507	4	517	0	0	0
Future Volume (veh/h)	202	524	0	0	1104	99	507	4	517	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1881	0	0	1881	1900	1810	1839	1863			
Adj Flow Rate, veh/h	220	570	0	0	1200	108	729	0	374			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	1	0	0	1	1	5	0	2			
Cap, veh/h	253	2202	0	0	1449	130	1007	0	463			
Arrive On Green	0.14	0.62	0.00	0.00	0.44	0.44	0.29	0.00	0.29			
Sat Flow, veh/h	1774	3668	0	0	3412	298	3447	0	1583			
Grp Volume(v), veh/h	220	570	0	0	645	663	729	0	374			
Grp Sat Flow(s),veh/h/ln	1774	1787	0	0	1787	1829	1723	0	1583			
Q Serve(g_s), s	11.5	6.9	0.0	0.0	30.2	30.4	18.0	0.0	20.8			
Cycle Q Clear(g_c), s	11.5	6.9	0.0	0.0	30.2	30.4	18.0	0.0	20.8			
Prop In Lane	1.00		0.00	0.00		0.16	1.00		1.00			
Lane Grp Cap(c), veh/h	253	2202	0	0	781	799	1007	0	463			
V/C Ratio(X)	0.87	0.26	0.00	0.00	0.83	0.83	0.72	0.00	0.81			
Avail Cap(c_a), veh/h	280	2202	0	0	781	799	1234	0	567			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.71	0.71	0.00	0.00	0.84	0.84	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.9	8.3	0.0	0.0	23.6	23.6	30.2	0.0	31.1			
Incr Delay (d2), s/veh	16.0	0.2	0.0	0.0	8.3	8.3	2.0	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			
%ile BackOfQ(50%),veh/ln	6.7	3.5	0.0	0.0	16.7	17.1	8.9	0.0	10.1			
LnGrp Delay(d),s/veh	55.9	8.5	0.0	0.0	31.9	31.9	32.2	0.0	39.1			
LnGrp LOS	E	A			C	C	C		D			
Approach Vol, veh/h		790			1308			1103				
Approach Delay, s/veh		21.7			31.9			34.5				
Approach LOS		C			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		63.1			17.0	46.1		31.9
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		52.0			15.0	33.5		34.0
Max Q Clear Time (g_c+I1), s		8.9			13.5	32.4		22.8
Green Ext Time (p_c), s		12.1			0.1	0.9		5.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	913	116	22	1117	0	86	0	21	0	0	0
Future Volume (veh/h)	52	913	116	22	1117	0	86	0	21	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1861	1900	1900	1863	0	1827	0	1810			
Adj Flow Rate, veh/h	57	1003	127	24	1227	0	95	0	23			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	2	2	0	2	0	4	0	5			
Cap, veh/h	103	2237	283	38	2388	0	134	0	118			
Arrive On Green	0.06	0.71	0.71	0.02	0.67	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	1810	3148	398	1810	3632	0	1740	0	1538			
Grp Volume(v), veh/h	57	563	567	24	1227	0	95	0	23			
Grp Sat Flow(s),veh/h/ln	1810	1768	1779	1810	1770	0	1740	0	1538			
Q Serve(g_s), s	2.2	9.5	9.6	0.9	12.2	0.0	3.8	0.0	1.0			
Cycle Q Clear(g_c), s	2.2	9.5	9.6	0.9	12.2	0.0	3.8	0.0	1.0			
Prop In Lane	1.00		0.22	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	103	1256	1264	38	2388	0	134	0	118			
V/C Ratio(X)	0.55	0.45	0.45	0.62	0.51	0.00	0.71	0.00	0.19			
Avail Cap(c_a), veh/h	641	1256	1264	641	2506	0	616	0	544			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	32.4	4.3	4.3	34.3	5.7	0.0	31.8	0.0	30.5			
Incr Delay (d2), s/veh	4.5	0.7	0.7	15.4	0.5	0.0	6.7	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			
%ile BackOfQ(50%),veh/ln	1.2	4.8	4.8	0.6	6.0	0.0	2.0	0.0	0.4			
LnGrp Delay(d),s/veh	36.9	5.0	5.0	49.6	6.2	0.0	38.5	0.0	31.3			
LnGrp LOS	D	A	A	D	A		D		C			
Approach Vol, veh/h		1187			1251			118				
Approach Delay, s/veh		6.6			7.0			37.1				
Approach LOS		A			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	5.5	55.2			8.0	52.6		9.9
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	25.0	50.0			25.0	50.0		25.0
Max Q Clear Time (g_c+I1), s	2.9	11.6			4.2	14.2		5.8
Green Ext Time (p_c), s	0.0	35.9			0.1	33.4		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.2
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	1097	1055	2
Future Vol, veh/h	0	20	5	1097	1055	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	1131	1088	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	545	1090	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.35	2.2	-	-	-
Pot Cap-1 Maneuver	0	475	648	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	475	648	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	648	-	475	-	-
HCM Lane V/C Ratio	0.008	-	0.043	-	-
HCM Control Delay (s)	10.6	-	12.9	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	52	51	349	262	49
Future Vol, veh/h	65	52	51	349	262	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	370	-	220	-	-	-
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	71	57	55	379	285	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	612	169	338	0	-	0
Stage 1	311	-	-	-	-	-
Stage 2	301	-	-	-	-	-
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	425	845	1218	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	406	845	1218	-	-	-
Mov Cap-2 Maneuver	406	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	692	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1218	-	406	845	-	-
HCM Lane V/C Ratio	0.046	-	0.174	0.067	-	-
HCM Control Delay (s)	8.1	-	15.7	9.6	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	599	132	22	606	39	116	3	27	68	10	349
Future Volume (veh/h)	179	599	132	22	606	39	116	3	27	68	10	349
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	195	651	143	24	659	42	126	3	29	74	11	379
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	1074	236	139	1110	71	167	14	137	410	61	418
Arrive On Green	0.13	0.37	0.37	0.08	0.33	0.33	0.09	0.09	0.09	0.26	0.26	0.26
Sat Flow, veh/h	1774	2887	633	1774	3379	215	1774	151	1455	1554	231	1583
Grp Volume(v), veh/h	195	399	395	24	345	356	126	0	32	85	0	379
Grp Sat Flow(s),veh/h/ln	1774	1770	1751	1774	1770	1825	1774	0	1606	1785	0	1583
Q Serve(g_s), s	10.1	17.2	17.2	1.2	15.3	15.3	6.5	0.0	1.7	3.5	0.0	21.8
Cycle Q Clear(g_c), s	10.1	17.2	17.2	1.2	15.3	15.3	6.5	0.0	1.7	3.5	0.0	21.8
Prop In Lane	1.00		0.36	1.00		0.12	1.00		0.91	0.87		1.00
Lane Grp Cap(c), veh/h	236	658	651	139	581	599	167	0	151	471	0	418
V/C Ratio(X)	0.83	0.61	0.61	0.17	0.59	0.59	0.75	0.00	0.21	0.18	0.00	0.91
Avail Cap(c_a), veh/h	566	1130	1118	566	1130	1165	566	0	513	570	0	505
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	39.7	23.9	24.0	40.4	26.3	26.3	41.5	0.0	39.3	26.7	0.0	33.5
Incr Delay (d2), s/veh	7.3	3.2	3.3	0.6	3.5	3.4	6.8	0.0	0.7	0.2	0.0	17.9
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	5.4	8.9	8.9	0.6	8.0	8.3	3.5	0.0	0.8	1.7	0.0	11.6
LnGrp Delay(d),s/veh	47.0	27.2	27.2	41.0	29.8	29.7	48.3	0.0	40.0	26.9	0.0	51.3
LnGrp LOS	D	C	C	D	C	C	D		D	C		D
Approach Vol, veh/h		989			725			158			464	
Approach Delay, s/veh		31.1			30.2			46.6			46.9	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.4	39.9		12.8	16.5	35.9		28.8
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	30.0	* 60		30.0	30.0	60.0		30.0
Max Q Clear Time (g_c+I1), s	3.2	19.2		8.5	12.1	17.3		23.8
Green Ext Time (p_c), s	11.1	15.7		0.5	0.5	13.5		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.0
HCM 2010 LOS	C

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	402	161	947	387	142	933
Future Volume (veh/h)	402	161	947	387	142	933
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	437	175	1029	421	154	1014
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	651	299	2229	993	199	2255
Arrive On Green	0.19	0.19	0.44	0.44	0.11	0.64
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	437	175	1029	421	154	1014
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	6.1	5.2	7.4	7.0	4.4	7.5
Cycle Q Clear(g_c), s	6.1	5.2	7.4	7.0	4.4	7.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	651	299	2229	993	199	2255
V/C Ratio(X)	0.67	0.58	0.46	0.42	0.78	0.45
Avail Cap(c_a), veh/h	1196	550	2229	993	360	2255
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.5	19.1	10.2	4.9	22.4	4.8
Incr Delay (d2), s/veh	1.2	1.8	0.7	1.3	6.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	2.4	3.6	4.9	2.5	3.7
LnGrp Delay(d),s/veh	20.7	21.0	10.9	6.2	28.7	5.4
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	612		1450			1168
Approach Delay, s/veh	20.8		9.6			8.5
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.3	27.2				37.5		14.3
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	10.5	18.0				33.0		18.0
Max Q Clear Time (g_c+I1), s	6.4	9.4				9.5		8.1
Green Ext Time (p_c), s	0.1	7.5				17.6		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	215	7	0	221	0	3
Future Vol, veh/h	215	7	0	221	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	-	-	-	-	-	-
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	234	8	0	240	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	238
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	801
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	801
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	801	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-
HCM Control Delay (s)	9.5	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Intersection Delay, s/veh	45.8
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	291	252	81	251	0	498	0	133	0	0	0
Future Vol, veh/h	1	291	252	81	251	0	498	0	133	0	0	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	7	3	7	6	0	5	0	4	0	0	0
Mvmt Flow	1	303	263	84	261	0	519	0	139	0	0	0
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	19.3	18.6	82.9	0
HCM LOS	C	C	F	-

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	498	133	292	252	81	251	0
LT Vol	498	0	1	0	81	0	0
Through Vol	0	0	291	0	0	251	0
RT Vol	0	133	0	252	0	0	0
Lane Flow Rate	519	139	304	262	84	261	0
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	1.11	0.246	0.615	0.489	0.191	0.555	0
Departure Headway (Hd)	7.702	6.394	7.661	7.06	8.572	8.037	9.114
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	472	562	475	515	421	452	0
Service Time	5.44	4.131	5.361	4.76	6.272	5.737	7.114
HCM Lane V/C Ratio	1.1	0.247	0.64	0.509	0.2	0.577	0
HCM Control Delay	102.1	11.2	21.8	16.3	13.3	20.3	12.1
HCM Lane LOS	F	B	C	C	B	C	N
HCM 95th-tile Q	17.5	1	4.1	2.7	0.7	3.3	0

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	67	835	7	98	432
Future Vol, veh/h	5	67	835	7	98	432
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	2	0	2	5
Mvmt Flow	5	72	898	8	105	465

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1577	902	0	0	905	0
Stage 1	902	-	-	-	-	-
Stage 2	675	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	122	339	-	-	752	-
Stage 1	399	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	105	339	-	-	752	-
Mov Cap-2 Maneuver	105	-	-	-	-	-
Stage 1	399	-	-	-	-	-
Stage 2	439	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.6	0	2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	294	752	-
HCM Lane V/C Ratio	-	-	0.263	0.14	-
HCM Control Delay (s)	-	-	21.6	10.6	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1	0.5	-

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	2	2	3	33	1	5	9	833	71	2	437	1
Future Vol, veh/h	2	2	3	33	1	5	9	833	71	2	437	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	-	-	30	-	-	30	105	-	210	105	-	-
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, %	0	0	0	0	0	0	0	2	1	0	5	0
Mvmt Flow	2	2	3	36	1	5	10	905	77	2	475	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1406	1405	476	1406	1405	905	476	0	0	905	0	0
Stage 1	480	480	-	925	925	-	-	-	-	-	-	-
Stage 2	926	925	-	481	480	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	118	141	593	118	141	338	1097	-	-	760	-	-
Stage 1	571	558	-	325	351	-	-	-	-	-	-	-
Stage 2	325	351	-	570	558	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	114	139	593	115	139	338	1097	-	-	760	-	-
Mov Cap-2 Maneuver	114	139	-	115	139	-	-	-	-	-	-	-
Stage 1	566	557	-	322	348	-	-	-	-	-	-	-
Stage 2	316	348	-	563	557	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.6	45.5	0.1	0
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1097	-	-	125	593	116	338	760	-	-
HCM Lane V/C Ratio	0.009	-	-	0.035	0.005	0.319	0.016	0.003	-	-
HCM Control Delay (s)	8.3	-	-	34.8	11.1	49.9	15.8	9.8	-	-
HCM Lane LOS	A	-	-	D	B	E	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	1.2	0	0	-	-

Intersection	
Intersection Delay, s/veh	13.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	87	28	91	51	21	11	101	212	80	7	129	79
Future Vol, veh/h	87	28	91	51	21	11	101	212	80	7	129	79
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	5	0	5	0	5	0	4	2	1	0	5	4
Mvmt Flow	98	31	102	57	24	12	113	238	90	8	145	89
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	11.8	12.2	15.6	11.5
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	76%	0%	61%	100%	0%	0%
Vol Thru, %	0%	73%	24%	0%	25%	0%	100%	0%
Vol Right, %	0%	27%	0%	100%	13%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	292	115	91	83	7	129	79
LT Vol	101	0	87	0	51	7	0	0
Through Vol	0	212	28	0	21	0	129	0
RT Vol	0	80	0	91	11	0	0	79
Lane Flow Rate	113	328	129	102	93	8	145	89
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.219	0.566	0.265	0.177	0.197	0.016	0.278	0.152
Departure Headway (Hd)	6.943	6.206	7.396	6.22	7.607	7.326	6.904	6.174
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	514	577	482	572	475	485	516	576
Service Time	4.722	3.984	5.191	4.014	5.307	5.12	4.698	3.968
HCM Lane V/C Ratio	0.22	0.568	0.268	0.178	0.196	0.016	0.281	0.155
HCM Control Delay	11.7	16.9	12.9	10.4	12.2	10.2	12.4	10.1
HCM Lane LOS	B	C	B	B	B	B	B	B
HCM 95th-tile Q	0.8	3.5	1.1	0.6	0.7	0	1.1	0.5

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	28	411	278	1
Future Vol, veh/h	0	11	28	411	278	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	4	2	3	0
Mvmt Flow	0	13	33	478	323	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	867	324	324	0	-	0
Stage 1	324	-	-	-	-	-
Stage 2	543	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	326	722	1225	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	586	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	317	722	1225	-	-	-
Mov Cap-2 Maneuver	317	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	570	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1225	-	722	-	-
HCM Lane V/C Ratio	0.027	-	0.018	-	-
HCM Control Delay (s)	8	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	6.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	193	246	32	133	156
Future Vol, veh/h	43	193	246	32	133	156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	10	2	1	7	5	1
Mvmt Flow	49	219	280	36	151	177

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	778	298	0	0	316	0
Stage 1	298	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Critical Hdwy	6.5	6.22	-	-	4.15	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.318	-	-	2.245	-
Pot Cap-1 Maneuver	354	741	-	-	1227	-
Stage 1	735	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	310	741	-	-	1227	-
Mov Cap-2 Maneuver	310	-	-	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	531	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.1	0	3.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	591	1227	-
HCM Lane V/C Ratio	-	-	0.454	0.123	-
HCM Control Delay (s)	-	-	16.1	8.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.4	0.4	-

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	9	287	7	5	196
Future Vol, veh/h	40	9	287	7	5	196
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	43	10	305	7	5	209

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	528	309	0	0	313	0
Stage 1	309	-	-	-	-	-
Stage 2	219	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	514	736	-	-	1259	-
Stage 1	749	-	-	-	-	-
Stage 2	822	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	512	736	-	-	1259	-
Mov Cap-2 Maneuver	512	-	-	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	819	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	512	736	1259	-
HCM Lane V/C Ratio	-	-	0.083	0.013	0.004	-
HCM Control Delay (s)	-	-	12.7	10	7.9	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	0	-

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	0	0	38	0	8	0	286	44	8	228	0
Future Vol, veh/h	0	0	0	38	0	8	0	286	44	8	228	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	3	0	0	0	2	0	0	3	0
Mvmt Flow	0	0	0	42	0	9	0	314	48	9	251	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	611	631	251	606	606	338	251	0	0	363	0	0
Stage 1	268	268	-	338	338	-	-	-	-	-	-	-
Stage 2	343	363	-	268	268	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	409	401	793	408	414	709	1326	-	-	1207	-	-
Stage 1	742	691	-	674	644	-	-	-	-	-	-	-
Stage 2	676	628	-	735	691	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	402	398	793	406	411	709	1326	-	-	1207	-	-
Mov Cap-2 Maneuver	402	398	-	406	411	-	-	-	-	-	-	-
Stage 1	742	686	-	674	644	-	-	-	-	-	-	-
Stage 2	668	628	-	730	686	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	14.3	0	0.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1326	-	-	-	439	1207	-	-
HCM Lane V/C Ratio	-	-	-	-	0.115	0.007	-	-
HCM Control Delay (s)	0	-	-	0	14.3	8	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	159	42	288	160	38	228
Future Vol, veh/h	159	42	288	160	38	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	181	48	327	182	43	259

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	763	418	0	0	509	0
Stage 1	418	-	-	-	-	-
Stage 2	345	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	375	639	-	-	1066	-
Stage 1	669	-	-	-	-	-
Stage 2	722	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	360	639	-	-	1066	-
Mov Cap-2 Maneuver	475	-	-	-	-	-
Stage 1	669	-	-	-	-	-
Stage 2	693	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.9	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	475	639	1066	-
HCM Lane V/C Ratio	-	-	0.38	0.075	0.041	-
HCM Control Delay (s)	-	-	17.2	11.1	8.5	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1.8	0.2	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	31	25	418	370	3
Future Vol, veh/h	3	31	25	418	370	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	3	4	2	3	0
Mvmt Flow	3	35	28	470	416	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	943	417	419	0	-	0
Stage 1	417	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.236	-	-	-
Pot Cap-1 Maneuver	294	634	1129	-	-	-
Stage 1	669	-	-	-	-	-
Stage 2	597	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	287	634	1129	-	-	-
Mov Cap-2 Maneuver	414	-	-	-	-	-
Stage 1	669	-	-	-	-	-
Stage 2	582	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1129	-	606	-	-
HCM Lane V/C Ratio	0.025	-	0.063	-	-
HCM Control Delay (s)	8.3	-	11.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

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	0	0	119	1	1	15	204	730	5	3	738	12
Future Vol, veh/h	0	0	119	1	1	15	204	730	5	3	738	12
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	7	4	3	0	33	1	0
Mvmt Flow	0	0	125	1	1	16	215	768	5	3	777	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	777	1984	1984	771	777	0	0	774	0	0
Stage 1	-	-	-	1201	1201	-	-	-	-	-	-	-
Stage 2	-	-	-	783	783	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.21	7.1	6.5	6.27	4.14	-	-	4.43	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.309	3.5	4	3.363	2.236	-	-	2.497	-	-
Pot Cap-1 Maneuver	0	0	398	46	62	392	831	-	-	719	-	-
Stage 1	0	0	-	228	260	-	-	-	-	-	-	-
Stage 2	0	0	-	390	407	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	398	25	46	392	831	-	-	719	-	-
Mov Cap-2 Maneuver	-	-	-	25	46	-	-	-	-	-	-	-
Stage 1	-	-	-	169	193	-	-	-	-	-	-	-
Stage 2	-	-	-	266	405	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.1	28.7	2.4	0
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	831	-	-	398	170	719	-	-
HCM Lane V/C Ratio	0.258	-	-	0.315	0.105	0.004	-	-
HCM Control Delay (s)	10.8	-	-	18.1	28.7	10	-	-
HCM Lane LOS	B	-	-	C	D	B	-	-
HCM 95th %tile Q(veh)	1	-	-	1.3	0.3	0	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	0	11	218	6	6
Future Vol, veh/h	5	0	11	218	6	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	5	0	12	237	7	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	5	0	266	5
Stage 1	-	-	-	-	5	-
Stage 2	-	-	-	-	261	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1616	-	723	1078
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	783	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1616	-	718	1078
Mov Cap-2 Maneuver	-	-	-	-	700	-
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	777	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	849	-	-	1616	-
HCM Lane V/C Ratio	0.015	-	-	0.007	-
HCM Control Delay (s)	9.3	-	-	7.2	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	44	188	156	66	22	189	225	123	22	233	36
Future Volume (veh/h)	50	44	188	156	66	22	189	225	123	22	233	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1667	1827	1881	1810	1900	1863	1863	1845	1900	1853	1900
Adj Flow Rate, veh/h	62	54	232	193	81	27	233	278	152	27	288	44
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	8	14	4	1	5	5	2	2	3	0	2	2
Cap, veh/h	342	340	309	293	211	70	292	620	513	33	542	82
Arrive On Green	0.20	0.20	0.20	0.16	0.16	0.16	0.16	0.33	0.33	0.02	0.18	0.18
Sat Flow, veh/h	1675	1667	1515	1792	1294	431	1774	1863	1542	1810	3045	458
Grp Volume(v), veh/h	62	54	232	193	0	108	233	278	152	27	165	167
Grp Sat Flow(s),veh/h/ln	1675	1667	1515	1792	0	1726	1774	1863	1542	1810	1760	1742
Q Serve(g_s), s	1.9	1.7	8.9	6.3	0.0	3.5	7.8	7.3	4.5	0.9	5.3	5.4
Cycle Q Clear(g_c), s	1.9	1.7	8.9	6.3	0.0	3.5	7.8	7.3	4.5	0.9	5.3	5.4
Prop In Lane	1.00		1.00	1.00		0.25	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	342	340	309	293	0	282	292	620	513	33	313	310
V/C Ratio(X)	0.18	0.16	0.75	0.66	0.00	0.38	0.80	0.45	0.30	0.83	0.53	0.54
Avail Cap(c_a), veh/h	756	752	683	808	0	779	715	1201	994	743	1135	1123
HCM Platoon Ratio	1.00	1.00	1.00	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	20.4	20.3	23.2	24.3	0.0	23.2	24.9	16.2	15.3	30.4	23.1	23.2
Incr Delay (d2), s/veh	0.1	0.1	1.4	1.0	0.0	0.3	5.0	0.2	0.1	17.6	0.5	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	0.8	3.8	3.2	0.0	1.7	4.2	3.7	1.9	0.6	2.6	2.6
LnGrp Delay(d),s/veh	20.5	20.4	24.6	25.3	0.0	23.5	29.9	16.4	15.5	47.9	23.6	23.7
LnGrp LOS	C	C	C	C		C	C	B	B	D	C	C
Approach Vol, veh/h		348			301			663			359	
Approach Delay, s/veh		23.2			24.7			20.9			25.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.1	26.1		16.7	14.7	16.5		14.1
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	25.5	40.0		28.0	25.0	40.0		28.0
Max Q Clear Time (g_c+I1), s	2.9	9.3		10.9	9.8	7.4		8.3
Green Ext Time (p_c), s	0.0	2.7		0.6	0.6	2.7		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	14	9	78	24	260	15	325	86	313	398	8
Future Volume (veh/h)	9	14	9	78	24	260	15	325	86	313	398	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1845	1900	1881	1845	1863	1846	1900
Adj Flow Rate, veh/h	10	16	10	89	27	295	17	369	98	356	452	9
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	3	0	1	3	2	3	3
Cap, veh/h	140	186	90	342	88	683	23	612	504	420	991	20
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.01	0.33	0.33	0.24	0.55	0.55
Sat Flow, veh/h	244	933	453	1081	442	1560	1810	1881	1549	1774	1802	36
Grp Volume(v), veh/h	36	0	0	116	0	295	17	369	98	356	0	461
Grp Sat Flow(s),veh/h/ln	1629	0	0	1523	0	1560	1810	1881	1549	1774	0	1838
Q Serve(g_s), s	0.0	0.0	0.0	2.4	0.0	6.6	0.5	8.3	2.3	9.7	0.0	7.6
Cycle Q Clear(g_c), s	0.8	0.0	0.0	3.2	0.0	6.6	0.5	8.3	2.3	9.7	0.0	7.6
Prop In Lane	0.28		0.28	0.77		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	417	0	0	430	0	683	23	612	504	420	0	1011
V/C Ratio(X)	0.09	0.00	0.00	0.27	0.00	0.43	0.75	0.60	0.19	0.85	0.00	0.46
Avail Cap(c_a), veh/h	712	0	0	679	0	943	574	1342	1105	563	0	1312
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.5	0.0	0.0	17.4	0.0	9.9	24.8	14.3	12.3	18.4	0.0	6.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.4	16.2	1.0	0.2	8.1	0.0	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	0.4	0.0	0.0	1.4	0.0	2.9	0.3	4.5	1.0	5.7	0.0	3.9
LnGrp Delay(d),s/veh	16.6	0.0	0.0	17.7	0.0	10.3	41.1	15.2	12.4	26.5	0.0	7.1
LnGrp LOS	B			B		B	D	B	B	C		A
Approach Vol, veh/h		36			411			484			817	
Approach Delay, s/veh		16.6			12.4			15.6			15.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.9	20.4		14.1	4.6	31.7		14.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	16.0	36.0		20.0	16.0	36.0		18.5
Max Q Clear Time (g_c+I1), s	11.7	10.3		2.8	2.5	9.6		8.6
Green Ext Time (p_c), s	0.4	6.1		1.8	0.0	6.2		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	46	58	64	52	43	137	324	84	30	134	314
Future Volume (veh/h)	53	46	58	64	52	43	137	324	84	30	134	314
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1843	1810	1845	1859	1900	1881	1870	1900	1845	1827	1881
Adj Flow Rate, veh/h	60	52	65	72	58	48	154	364	94	34	151	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	5	3	4	4	1	2	2	3	4	1
Cap, veh/h	132	114	211	242	130	107	201	820	209	70	402	352
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	0.29	0.29	0.04	0.22	0.00
Sat Flow, veh/h	962	834	1538	1757	942	780	1792	2805	716	1757	1827	1599
Grp Volume(v), veh/h	112	0	65	72	0	106	154	229	229	34	151	0
Grp Sat Flow(s),veh/h/ln	1795	0	1538	1757	0	1722	1792	1777	1744	1757	1827	1599
Q Serve(g_s), s	2.1	0.0	1.4	1.3	0.0	2.1	3.0	3.8	3.9	0.7	2.6	0.0
Cycle Q Clear(g_c), s	2.1	0.0	1.4	1.3	0.0	2.1	3.0	3.8	3.9	0.7	2.6	0.0
Prop In Lane	0.54		1.00	1.00		0.45	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	247	0	211	242	0	237	201	519	510	70	402	352
V/C Ratio(X)	0.45	0.00	0.31	0.30	0.00	0.45	0.77	0.44	0.45	0.48	0.38	0.00
Avail Cap(c_a), veh/h	1480	0	1268	1207	0	1183	985	1953	1917	965	2008	1758
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	14.4	0.0	14.1	14.1	0.0	14.4	15.7	10.5	10.5	17.1	12.1	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.3	0.3	0.0	0.5	2.3	0.3	0.3	1.9	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	1.1	0.0	0.6	0.7	0.0	1.0	1.6	1.9	1.9	0.4	1.3	0.0
LnGrp Delay(d),s/veh	14.9	0.0	14.4	14.4	0.0	14.9	18.0	10.8	10.8	19.0	12.4	0.0
LnGrp LOS	B		B	B		B	B	B	B	B	B	
Approach Vol, veh/h		177			178			612			185	
Approach Delay, s/veh		14.7			14.7			12.6			13.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	14.3		8.5	7.1	11.7		9.1
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	20.0	40.0		30.0	20.0	40.0		25.0
Max Q Clear Time (g_c+I1), s	2.7	5.9		4.1	5.0	4.6		4.1
Green Ext Time (p_c), s	0.0	2.8		0.4	0.1	2.8		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	13.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	130	304	241	59	80	176
Future Vol, veh/h	130	304	241	59	80	176
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	91	91	91	91	91	91
Heavy Vehicles, %	3	1	2	2	4	5
Mvmt Flow	143	334	265	65	88	193

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	634	265	0	0	265	0
Stage 1	265	-	-	-	-	-
Stage 2	369	-	-	-	-	-
Critical Hdwy	6.43	6.21	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.309	-	-	2.236	-
Pot Cap-1 Maneuver	442	776	-	-	1287	-
Stage 1	777	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	408	776	-	-	1287	-
Mov Cap-2 Maneuver	408	-	-	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	643	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.7	0	2.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	611	1287	-
HCM Lane V/C Ratio	-	-	0.781	0.068	-
HCM Control Delay (s)	-	-	28.7	8	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	7.4	0.2	-

Intersection	
Int Delay, s/veh	7.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	35	115	90	38	100	132
Future Vol, veh/h	35	115	90	38	100	132
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	86	86	86	86	86	86
Heavy Vehicles, %	4	4	2	7	5	3
Mvmt Flow	41	134	105	44	116	153

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	174	0	361	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	253	-
Critical Hdwy	-	-	4.12	-	6.45	6.23
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.327
Pot Cap-1 Maneuver	-	-	1403	-	632	943
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	782	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1403	-	583	943
Mov Cap-2 Maneuver	-	-	-	-	583	-
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	722	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.5	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	745	-	-	1403	-
HCM Lane V/C Ratio	0.362	-	-	0.075	-
HCM Control Delay (s)	12.6	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.7	-	-	0.2	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	69	113	0	61	0	699	89	91	716	0
Future Volume (vph)	0	0	69	113	0	61	0	699	89	91	716	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.97	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1585	1805		1455		3505	1599	1752	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1585	1805		1455		3505	1599	1752	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	72	118	0	64	0	728	93	95	746	0
RTOR Reduction (vph)	0	0	69	0	0	48	0	0	45	0	0	0
Lane Group Flow (vph)	0	0	3	118	0	16	0	728	48	95	746	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			2.0	5.1		11.6		19.5	24.6	2.6	26.1	
Effective Green, g (s)			2.0	5.1		11.6		19.5	24.6	2.6	26.1	
Actuated g/C Ratio			0.04	0.11		0.25		0.41	0.52	0.06	0.55	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			67	195		357		1448	833	96	1956	
v/s Ratio Prot				c0.07				c0.21	0.01	c0.05	0.21	
v/s Ratio Perm			0.00			c0.01			0.02			
v/c Ratio			0.05	0.61		0.04		0.50	0.06	0.99	0.38	
Uniform Delay, d1			21.7	20.1		13.6		10.3	5.6	22.3	6.0	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.3	5.2		0.1		0.4	0.0	87.4	0.2	
Delay (s)			22.0	25.3		13.6		10.6	5.6	109.7	6.1	
Level of Service			C	C		B		B	A	F	A	
Approach Delay (s)		22.0			21.2			10.1			17.8	
Approach LOS		C			C			B			B	

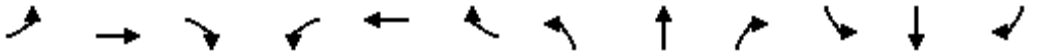
Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	47.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	23	204	118	24	23	198	884	98	64	999	116
Future Volume (veh/h)	135	23	204	118	24	23	198	884	98	64	999	116
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1863	1881	1845	1863	1881
Adj Flow Rate, veh/h	141	24	212	123	25	24	206	921	102	67	1041	121
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	1	3	2	1
Cap, veh/h	177	195	298	157	166	153	248	2021	912	87	1692	754
Arrive On Green	0.10	0.11	0.11	0.09	0.09	0.09	0.14	0.57	0.57	0.05	0.48	0.48
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	3539	1598	1757	3539	1577
Grp Volume(v), veh/h	141	24	212	123	25	24	206	921	102	67	1041	121
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1770	1598	1757	1770	1577
Q Serve(g_s), s	7.4	1.1	6.8	6.4	1.2	1.3	10.7	14.0	2.7	3.5	20.2	4.0
Cycle Q Clear(g_c), s	7.4	1.1	6.8	6.4	1.2	1.3	10.7	14.0	2.7	3.5	20.2	4.0
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	177	195	298	157	166	153	248	2021	912	87	1692	754
V/C Ratio(X)	0.80	0.12	0.71	0.78	0.15	0.16	0.83	0.46	0.11	0.77	0.62	0.16
Avail Cap(c_a), veh/h	562	591	901	568	569	522	844	2021	912	379	1907	850
HCM Platoon Ratio	1.00	1.00	1.00	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	40.7	37.5	40.1	41.4	38.6	38.6	38.7	11.5	9.1	43.6	17.9	13.7
Incr Delay (d2), s/veh	7.9	0.3	3.2	8.3	0.4	0.5	7.1	0.3	0.1	13.1	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.6	2.7	3.4	0.6	0.6	5.6	6.9	1.2	2.0	10.0	1.8
LnGrp Delay(d),s/veh	48.7	37.8	43.2	49.6	39.0	39.1	45.8	11.9	9.2	56.7	18.8	13.9
LnGrp LOS	D	D	D	D	D	D	D	B	A	E	B	B
Approach Vol, veh/h		377			172			1229			1229	
Approach Delay, s/veh		44.9			46.6			17.3			20.4	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	58.0	12.3	13.9	17.2	49.4	13.4	12.8
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	5.5	16.0	8.4	8.8	12.7	22.2	9.4	3.3
Green Ext Time (p_c), s	0.1	29.7	0.3	1.1	0.6	22.2	0.3	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.7
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	195	161	270	168	24	162	349	260	29	376	59
Future Volume (veh/h)	70	195	161	270	168	24	162	349	260	29	376	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1881	1845	1881	1863	1900	1792	1827	1863	1900	1863	1845
Adj Flow Rate, veh/h	74	207	171	287	179	26	172	371	277	31	400	63
Adj No. of Lanes	1	1	1	2	1	1	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	1	3	1	2	0	6	4	2	0	2	3
Cap, veh/h	96	358	298	397	465	394	212	785	862	45	615	518
Arrive On Green	0.05	0.19	0.19	0.11	0.25	0.25	0.12	0.43	0.43	0.02	0.33	0.33
Sat Flow, veh/h	1757	1881	1568	3476	1863	1580	1707	1827	1583	1810	1863	1568
Grp Volume(v), veh/h	74	207	171	287	179	26	172	371	277	31	400	63
Grp Sat Flow(s),veh/h/ln	1757	1881	1568	1738	1863	1580	1707	1827	1583	1810	1863	1568
Q Serve(g_s), s	3.4	8.3	8.2	6.6	6.6	1.0	8.1	12.1	8.0	1.4	15.2	2.3
Cycle Q Clear(g_c), s	3.4	8.3	8.2	6.6	6.6	1.0	8.1	12.1	8.0	1.4	15.2	2.3
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	96	358	298	397	465	394	212	785	862	45	615	518
V/C Ratio(X)	0.77	0.58	0.57	0.72	0.38	0.07	0.81	0.47	0.32	0.70	0.65	0.12
Avail Cap(c_a), veh/h	423	680	567	1047	785	666	514	880	944	436	785	661
HCM Platoon Ratio	1.00	1.00	1.00	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	38.7	30.6	30.5	35.5	25.9	23.8	35.4	16.9	10.5	40.2	23.7	19.4
Incr Delay (d2), s/veh	11.9	3.1	3.7	2.5	1.1	0.1	7.2	0.9	0.5	17.7	2.5	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	4.6	3.9	3.3	3.5	0.5	4.2	6.3	3.6	0.9	8.2	1.0
LnGrp Delay(d),s/veh	50.6	33.7	34.2	38.0	27.0	23.9	42.6	17.9	10.9	57.9	26.3	19.6
LnGrp LOS	D	C	C	D	C	C	D	B	B	E	C	B
Approach Vol, veh/h		452			492			820			494	
Approach Delay, s/veh		36.7			33.2			20.7			27.4	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	41.2	14.0	21.3	14.8	32.9	9.1	26.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	20.0	40.0	25.0	30.0	25.0	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s	3.4	14.1	8.6	10.3	10.1	17.2	5.4	8.6
Green Ext Time (p_c), s	0.0	12.8	0.9	5.5	0.4	10.2	0.1	6.2

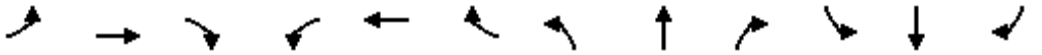
Intersection Summary	
HCM 2010 Ctrl Delay	28.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	290	407	149	386	340	735	245	0	1258	82
Future Volume (veh/h)	80	0	290	407	149	386	340	735	245	0	1258	82
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1881	1863	1830	1776	1900	1863	1845	0	1810	1900
Adj Flow Rate, veh/h	83	0	302	424	340	278	354	766	255	0	1310	85
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	1	2	1	7	0	2	3	0	5	0
Cap, veh/h	107	0	0	500	384	317	387	2938	906	0	1581	517
Arrive On Green	0.06	0.00	0.00	0.14	0.21	0.21	0.21	0.58	0.58	0.00	0.32	0.32
Sat Flow, veh/h	1810	83		3548	1830	1509	1810	5085	1568	0	5103	1615
Grp Volume(v), veh/h	83	48.6		424	340	278	354	766	255	0	1310	85
Grp Sat Flow(s),veh/h/ln	1810	D		1774	1830	1509	1810	1695	1568	0	1647	1615
Q Serve(g_s), s	4.3			11.1	17.2	17.0	18.2	7.1	7.8	0.0	23.4	3.6
Cycle Q Clear(g_c), s	4.3			11.1	17.2	17.0	18.2	7.1	7.8	0.0	23.4	3.6
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	107			500	384	317	387	2938	906	0	1581	517
V/C Ratio(X)	0.78			0.85	0.89	0.88	0.92	0.26	0.28	0.00	0.83	0.16
Avail Cap(c_a), veh/h	380			2218	673	555	570	3697	1140	0	1816	594
HCM Platoon Ratio	1.00			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
Uniform Delay (d), s/veh	44.2			39.9	36.5	36.4	36.6	10.0	10.1	0.0	29.9	23.2
Incr Delay (d2), s/veh	4.5			1.6	3.1	3.2	11.7	0.0	0.1	0.0	2.6	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
%ile BackOfQ(50%),veh/ln	2.3			5.5	9.0	7.4	10.3	3.3	3.4	0.0	10.9	1.6
LnGrp Delay(d),s/veh	48.6			41.5	39.6	39.6	48.3	10.0	10.2	0.0	32.5	23.3
LnGrp LOS	D			D	D	D	D	B	B		C	C
Approach Vol, veh/h					1042			1375			1395	
Approach Delay, s/veh					40.4			19.9			32.0	
Approach LOS					D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		60.7	17.8		24.5	36.2	9.7	24.8
Change Period (Y+Rc), s		5.7	4.4		* 4.2	5.7	4.1	4.8
Max Green Setting (Gmax), s		69.2	59.5		* 30	35.0	20.0	35.0
Max Q Clear Time (g_c+I1), s		9.8	13.1		20.2	25.4	6.3	19.2
Green Ext Time (p_c), s		8.5	0.3		0.1	5.1	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	492	281	50	107	0	335	0	742	90	432	550	426
Future Volume (veh/h)	492	281	50	107	0	335	0	742	90	432	550	426
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1827	1900	0	1900	0	1776	1900	1881	1845	1827
Adj Flow Rate, veh/h	507	290	52	110	0	345	0	765	93	445	567	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	4	0	0	0	0	7	0	1	3	4
Cap, veh/h	710	466	204	199	0	0	0	1433	379	585	1702	754
Arrive On Green	0.21	0.13	0.13	0.11	0.00	0.00	0.00	0.23	0.23	0.17	0.49	0.00
Sat Flow, veh/h	3442	3539	1553	1810	110		0	6357	1615	3476	3505	1553
Grp Volume(v), veh/h	507	290	52	110	21.8		0	765	93	445	567	0
Grp Sat Flow(s),veh/h/ln	1721	1770	1553	1810	C		0	1527	1615	1738	1752	1553
Q Serve(g_s), s	6.8	3.8	1.5	2.9			0.0	5.4	2.3	6.0	4.9	0.0
Cycle Q Clear(g_c), s	6.8	3.8	1.5	2.9			0.0	5.4	2.3	6.0	4.9	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	710	466	204	199			0	1433	379	585	1702	754
V/C Ratio(X)	0.71	0.62	0.25	0.55			0.00	0.53	0.25	0.76	0.33	0.00
Avail Cap(c_a), veh/h	3474	2500	1097	1461			0	5549	1467	1754	5243	2323
HCM Platoon Ratio	1.00	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	0.00
Uniform Delay (d), s/veh	18.3	20.3	19.3	20.9			0.0	16.6	15.4	19.6	7.8	0.0
Incr Delay (d2), s/veh	1.0	0.5	0.2	0.9			0.0	0.1	0.1	0.8	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
%ile BackOfQ(50%),veh/ln	3.3	1.9	0.6	1.5			0.0	2.3	1.0	3.0	2.4	0.0
LnGrp Delay(d),s/veh	19.3	20.9	19.6	21.8			0.0	16.7	15.5	20.4	7.9	0.0
LnGrp LOS	B	C	B	C				B	B	C	A	
Approach Vol, veh/h		849						858			1012	
Approach Delay, s/veh		19.9						16.6			13.4	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	12.4	17.3	9.2	10.6		29.8	14.3	
Change Period (Y+Rc), s	4.1	5.7	3.7	4.1		5.7	4.1	
Max Green Setting (Gmax), s	25.0	45.0	40.0	35.0		74.1	50.0	
Max Q Clear Time (g_c+I1), s	8.0	7.4	4.9	5.8		6.9	8.8	
Green Ext Time (p_c), s	0.3	4.2	0.0	0.7		4.2	1.4	

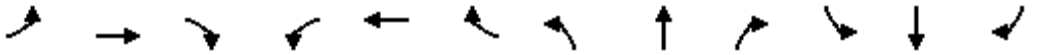
Intersection Summary	
HCM 2010 Ctrl Delay	16.6
HCM 2010 LOS	B

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	106	728	72	0	707
Future Volume (Veh/h)	0	106	728	72	0	707
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	110	758	75	0	736
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			443			404
pX, platoon unblocked	0.93	0.99			0.99	
vC, conflicting volume	1164	228			834	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	899	142			757	
tC, single (s)	7.8	7.0			5.4	
tC, 2 stage (s)						
tF (s)	4.0	3.4			2.9	
p0 queue free %	100	87			100	
cM capacity (veh/h)	188	850			524	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	110	217	217	217	183	368	368
Volume Left	0	0	0	0	0	0	0
Volume Right	110	0	0	0	75	0	0
cSH	850	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.13	0.13	0.13	0.13	0.11	0.22	0.22
Queue Length 95th (ft)	11	0	0	0	0	0	0
Control Delay (s)	9.9	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						
Approach Delay (s)	9.9	0.0				0.0	
Approach LOS	A						

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	25.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	3	70	1	18	1	779	77	31	670	5
Future Volume (veh/h)	3	0	3	70	1	18	1	779	77	31	670	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1827	1900	1900	1900	1863	1881	1727	1863	1900
Adj Flow Rate, veh/h	3	0	3	72	1	19	1	803	79	32	691	5
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	4	0	0	0	2	1	10	2	0
Cap, veh/h	7	0	7	208	117	99	3	2681	842	58	1986	906
Arrive On Green	0.00	0.00	0.00	0.06	0.06	0.06	0.00	0.53	0.53	0.04	0.56	0.56
Sat Flow, veh/h	1810	0	1615	3375	1900	1615	1810	5085	1597	1645	3539	1614
Grp Volume(v), veh/h	3	0	3	72	1	19	1	803	79	32	691	5
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1688	1900	1615	1810	1695	1597	1645	1770	1614
Q Serve(g_s), s	0.1	0.0	0.1	1.1	0.0	0.6	0.0	4.7	1.3	1.0	5.7	0.1
Cycle Q Clear(g_c), s	0.1	0.0	0.1	1.1	0.0	0.6	0.0	4.7	1.3	1.0	5.7	0.1
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	7	0	7	208	117	99	3	2681	842	58	1986	906
V/C Ratio(X)	0.41	0.00	0.46	0.35	0.01	0.19	0.29	0.30	0.09	0.55	0.35	0.01
Avail Cap(c_a), veh/h	1019	0	1213	1902	1427	1213	1019	5730	1800	1853	5982	2727
HCM Platoon Ratio	1.00	1.00	1.00	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	26.5	0.0	26.5	24.0	23.5	23.7	26.6	7.1	6.3	25.3	6.4	5.1
Incr Delay (d2), s/veh	32.3	0.0	49.7	1.0	0.0	1.1	42.1	0.1	0.1	7.8	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	0.1	0.0	0.1	0.5	0.0	0.3	0.1	2.2	0.6	0.6	2.7	0.0
LnGrp Delay(d),s/veh	58.7	0.0	76.1	25.0	23.5	24.8	68.7	7.1	6.3	33.1	6.5	5.1
LnGrp LOS	E		E	C	C	C	E	A	A	C	A	A
Approach Vol, veh/h		6			92			883			728	
Approach Delay, s/veh		67.4			24.9			7.1			7.7	
Approach LOS		E			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	33.9	7.8	5.2	4.6	35.7	4.7	8.3
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	60.0	60.0	30.0	40.0	30.0	90.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	3.0	6.7	3.1	2.1	2.0	7.7	2.1	2.6
Green Ext Time (p_c), s	0.1	20.1	0.2	0.1	0.0	22.2	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	8.5
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	37	20	15	820	716	27
Future Volume (veh/h)	37	20	15	820	716	27
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1900	1863	1847	1900
Adj Flow Rate, veh/h	40	22	16	891	778	29
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	2	3	3
Cap, veh/h	201	95	36	2560	3029	113
Arrive On Green	0.06	0.06	0.02	0.72	0.61	0.61
Sat Flow, veh/h	3408	1615	1810	3632	5155	186
Grp Volume(v), veh/h	40	22	16	891	523	284
Grp Sat Flow(s),veh/h/ln	1704	1615	1810	1770	1680	1814
Q Serve(g_s), s	0.5	0.6	0.4	4.4	3.4	3.4
Cycle Q Clear(g_c), s	0.5	0.6	0.4	4.4	3.4	3.4
Prop In Lane	1.00	1.00	1.00			0.10
Lane Grp Cap(c), veh/h	201	95	36	2560	2040	1101
V/C Ratio(X)	0.20	0.23	0.44	0.35	0.26	0.26
Avail Cap(c_a), veh/h	2909	1379	1545	7893	4303	2322
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	21.0	21.0	22.7	2.4	4.3	4.3
Incr Delay (d2), s/veh	0.5	1.2	8.2	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	0.3	2.1	1.5	1.7
LnGrp Delay(d),s/veh	21.5	22.2	30.9	2.5	4.4	4.4
LnGrp LOS	C	C	C	A	A	A
Approach Vol, veh/h	62			907	807	
Approach Delay, s/veh	21.7			3.0	4.4	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		7.3	5.4	34.1				39.6
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		40.0	40.0	60.0				104.5
Max Q Clear Time (g_c+I1), s		2.6	2.4	5.4				6.4
Green Ext Time (p_c), s		0.2	0.0	23.0				26.6

Intersection Summary	
HCM 2010 Ctrl Delay	4.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	184	185	40	158	120	165	584	29	110	490	101
Future Volume (veh/h)	137	184	185	40	158	120	165	584	29	110	490	101
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1881	1863	1840	1900	1827	1858	1900	1863	1863	1827
Adj Flow Rate, veh/h	143	192	193	42	165	125	172	608	30	115	510	105
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	1	2	5	5	4	2	2	2	2	4
Cap, veh/h	184	1007	450	68	424	299	303	1203	59	151	1763	527
Arrive On Green	0.10	0.28	0.28	0.04	0.22	0.22	0.09	0.35	0.35	0.08	0.35	0.35
Sat Flow, veh/h	1774	3539	1582	1774	1937	1366	3375	3424	169	1774	5085	1521
Grp Volume(v), veh/h	143	192	193	42	148	142	172	313	325	115	510	105
Grp Sat Flow(s),veh/h/ln	1774	1770	1582	1774	1748	1555	1688	1766	1827	1774	1695	1521
Q Serve(g_s), s	6.2	3.2	7.8	1.8	5.7	6.2	3.9	11.0	11.1	5.0	5.7	3.8
Cycle Q Clear(g_c), s	6.2	3.2	7.8	1.8	5.7	6.2	3.9	11.0	11.1	5.0	5.7	3.8
Prop In Lane	1.00		1.00	1.00		0.88	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	184	1007	450	68	383	341	303	620	642	151	1763	527
V/C Ratio(X)	0.78	0.19	0.43	0.62	0.39	0.42	0.57	0.50	0.51	0.76	0.29	0.20
Avail Cap(c_a), veh/h	675	2245	1004	1013	1109	986	1713	672	695	675	2903	868
HCM Platoon Ratio	1.00	1.00	1.00	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	34.4	21.3	23.0	37.4	26.3	26.5	34.4	20.2	20.2	35.3	18.7	18.1
Incr Delay (d2), s/veh	6.9	0.3	2.3	8.9	0.9	1.2	3.6	2.3	2.2	7.8	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	3.4	1.6	3.7	1.1	2.8	2.8	1.9	5.8	6.0	2.8	2.7	1.6
LnGrp Delay(d),s/veh	41.3	21.7	25.3	46.3	27.2	27.6	38.0	22.5	22.4	43.1	18.8	18.3
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	B	B
Approach Vol, veh/h		528			332			810			730	
Approach Delay, s/veh		28.3			29.8			25.7			22.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	32.7	7.0	28.4	11.1	32.3	12.2	23.3
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	30.0	30.0	45.0	50.0	40.0	45.0	30.0	50.0
Max Q Clear Time (g_c+I1), s	7.0	13.1	3.8	9.8	5.9	7.7	8.2	8.2
Green Ext Time (p_c), s	0.3	11.5	0.1	9.0	1.4	19.2	0.4	9.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	23	21	8	10	26	18	358	13	21	454	63
Future Volume (veh/h)	43	23	21	8	10	26	18	358	13	21	454	63
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1743	1810	1900	1803	1900	1792	1808	1900	1597	1863	1863
Adj Flow Rate, veh/h	47	25	23	9	11	29	20	393	14	23	499	69
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	26	26	5	0	0	0	6	5	5	19	2	2
Cap, veh/h	112	38	375	93	80	393	40	855	30	40	924	768
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.02	0.49	0.49	0.03	0.50	0.50
Sat Flow, veh/h	48	154	1535	21	327	1612	1707	1735	62	1521	1863	1549
Grp Volume(v), veh/h	72	0	23	20	0	29	20	0	407	23	499	69
Grp Sat Flow(s),veh/h/ln	202	0	1535	349	0	1612	1707	0	1797	1521	1863	1549
Q Serve(g_s), s	0.8	0.0	0.7	0.2	0.0	0.8	0.7	0.0	8.8	0.9	10.9	1.4
Cycle Q Clear(g_c), s	14.4	0.0	0.7	14.1	0.0	0.8	0.7	0.0	8.8	0.9	10.9	1.4
Prop In Lane	0.65		1.00	0.45		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	150	0	375	173	0	393	40	0	886	40	924	768
V/C Ratio(X)	0.48	0.00	0.06	0.12	0.00	0.07	0.50	0.00	0.46	0.58	0.54	0.09
Avail Cap(c_a), veh/h	520	0	779	579	0	818	866	0	1216	772	1576	1310
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	17.1	18.2	0.0	17.2	28.5	0.0	9.8	28.5	10.3	7.9
Incr Delay (d2), s/veh	2.8	0.0	0.1	0.3	0.0	0.1	11.0	0.0	1.0	14.5	1.4	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	1.3	0.0	0.3	0.3	0.0	0.4	0.4	0.0	4.5	0.5	5.9	0.6
LnGrp Delay(d),s/veh	26.2	0.0	17.2	18.6	0.0	17.3	39.6	0.0	10.9	43.0	11.6	8.0
LnGrp LOS	C		B	B		B	D		B	D	B	A
Approach Vol, veh/h		95			49			427			591	
Approach Delay, s/veh		24.0			17.8			12.2			12.4	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	34.7		19.4	5.5	34.8		19.4
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	30.0	40.0		30.0	30.0	50.0		30.0
Max Q Clear Time (g_c+I1), s	2.9	10.8		16.4	2.7	12.9		16.1
Green Ext Time (p_c), s	0.0	14.7		0.6	0.0	16.7		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	51	19	369	67	101	14	466	329	81	400	40
Future Volume (veh/h)	44	51	19	369	67	101	14	466	329	81	400	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1853	1881	1900	1845	1881	1827	1858	1900
Adj Flow Rate, veh/h	47	54	20	444	0	107	15	496	350	86	426	43
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	6	1	0	3	1	4	2	2
Cap, veh/h	146	210	73	660	0	292	26	1429	651	113	1482	149
Arrive On Green	0.08	0.08	0.08	0.18	0.00	0.18	0.01	0.41	0.41	0.07	0.46	0.46
Sat Flow, veh/h	1810	2611	913	3583	0	1586	1810	3505	1597	1740	3232	325
Grp Volume(v), veh/h	47	36	38	444	0	107	15	496	350	86	232	237
Grp Sat Flow(s),veh/h/ln	1810	1805	1719	1792	0	1586	1810	1752	1597	1740	1765	1792
Q Serve(g_s), s	1.7	1.3	1.5	8.1	0.0	4.2	0.6	6.9	11.7	3.4	5.8	5.8
Cycle Q Clear(g_c), s	1.7	1.3	1.5	8.1	0.0	4.2	0.6	6.9	11.7	3.4	5.8	5.8
Prop In Lane	1.00		0.53	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	146	145	138	660	0	292	26	1429	651	113	809	821
V/C Ratio(X)	0.32	0.25	0.27	0.67	0.00	0.37	0.57	0.35	0.54	0.76	0.29	0.29
Avail Cap(c_a), veh/h	719	717	683	3050	0	1350	513	2983	1359	864	1502	1525
HCM Platoon Ratio	1.00	1.00	1.00	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	30.6	30.4	30.5	26.8	0.0	25.2	34.5	14.4	15.8	32.4	11.9	11.9
Incr Delay (d2), s/veh	1.3	0.9	1.0	1.2	0.0	0.8	18.3	0.2	1.0	9.9	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	0.9	0.7	0.7	4.1	0.0	1.9	0.4	3.3	5.3	2.0	2.8	2.9
LnGrp Delay(d),s/veh	31.9	31.3	31.5	28.0	0.0	25.9	52.8	14.6	16.8	42.3	12.2	12.2
LnGrp LOS	C	C	C	C		C	D	B	B	D	B	B
Approach Vol, veh/h		121			551			861			555	
Approach Delay, s/veh		31.6			27.6			16.2			16.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	33.8		10.7	5.0	37.3		17.5
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	35.0	60.0		28.0	20.0	60.0		60.0
Max Q Clear Time (g_c+I1), s	5.4	13.7		3.7	2.6	7.8		10.1
Green Ext Time (p_c), s	0.2	15.0		0.5	0.0	15.5		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	20.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	395	14	22	389	417	43	15	22	375	24	194
Future Volume (veh/h)	191	395	14	22	389	417	43	15	22	375	24	194
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1882	1900	1810	1881	1827	1900	1846	1900	1881	1874	1863
Adj Flow Rate, veh/h	203	420	15	23	414	0	46	16	23	418	0	206
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	5	1	4	0	0	0	1	4	2
Cap, veh/h	230	1224	44	31	848	368	533	202	290	630	0	277
Arrive On Green	0.13	0.35	0.35	0.02	0.24	0.00	0.29	0.29	0.29	0.18	0.00	0.18
Sat Flow, veh/h	1792	3521	126	1723	3574	1553	1810	684	983	3583	0	1573
Grp Volume(v), veh/h	203	213	222	23	414	0	46	0	39	418	0	206
Grp Sat Flow(s),veh/h/ln	1792	1788	1859	1723	1787	1553	1810	0	1667	1792	0	1573
Q Serve(g_s), s	13.2	10.5	10.5	1.6	11.9	0.0	2.2	0.0	2.0	12.9	0.0	14.8
Cycle Q Clear(g_c), s	13.2	10.5	10.5	1.6	11.9	0.0	2.2	0.0	2.0	12.9	0.0	14.8
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	230	621	646	31	848	368	533	0	491	630	0	277
V/C Ratio(X)	0.88	0.34	0.34	0.75	0.49	0.00	0.09	0.00	0.08	0.66	0.00	0.74
Avail Cap(c_a), veh/h	234	677	704	297	1354	588	533	0	491	1056	0	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	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.9	28.7	28.7	58.1	39.1	0.0	30.3	0.0	30.3	45.7	0.0	46.4
Incr Delay (d2), s/veh	30.0	1.2	1.1	29.4	1.6	0.0	0.3	0.0	0.3	1.7	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	8.5	5.3	5.6	1.0	6.1	0.0	1.1	0.0	1.0	6.5	0.0	6.8
LnGrp Delay(d),s/veh	80.9	29.9	29.9	87.4	40.7	0.0	30.6	0.0	30.6	47.4	0.0	52.0
LnGrp LOS	F	C	C	F	D		C		C	D		D
Approach Vol, veh/h		638			437			85			624	
Approach Delay, s/veh		46.1			43.1			30.6			48.9	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		40.0	6.6	46.3		25.9	19.7	33.2
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		35.0	20.5	45.0		35.0	15.5	45.0
Max Q Clear Time (g_c+I1), s		4.2	3.6	12.5		16.8	15.2	13.9
Green Ext Time (p_c), s		0.4	0.0	14.6		3.4	0.0	14.3

Intersection Summary	
HCM 2010 Ctrl Delay	45.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	466	412	377	706	0	0	0	0	29	2	170
Future Volume (veh/h)	0	466	412	377	706	0	0	0	0	29	2	170
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1845	1863	0				1827	1863	1900
Adj Flow Rate, veh/h	0	491	434	397	743	0				31	2	179
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	3	2	0				4	0	4
Cap, veh/h	0	1613	720	433	2699	0				241	2	217
Arrive On Green	0.00	0.46	0.46	0.25	0.76	0.00				0.14	0.14	0.14
Sat Flow, veh/h	0	3632	1580	1757	3632	0				1740	18	1569
Grp Volume(v), veh/h	0	491	434	397	743	0				31	0	181
Grp Sat Flow(s),veh/h/ln	0	1770	1580	1757	1770	0				1740	0	1586
Q Serve(g_s), s	0.0	8.2	19.2	20.5	5.9	0.0				1.5	0.0	10.3
Cycle Q Clear(g_c), s	0.0	8.2	19.2	20.5	5.9	0.0				1.5	0.0	10.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1613	720	433	2699	0				241	0	220
V/C Ratio(X)	0.00	0.30	0.60	0.92	0.28	0.00				0.13	0.00	0.82
Avail Cap(c_a), veh/h	0	1613	720	604	2699	0				486	0	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.87	0.87	0.82	0.82	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.0	19.0	34.1	3.3	0.0				35.1	0.0	39.0
Incr Delay (d2), s/veh	0.0	0.4	3.2	10.8	0.2	0.0				0.1	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
%ile BackOfQ(50%),veh/ln	0.0	4.1	9.0	11.2	2.9	0.0				0.7	0.0	4.7
LnGrp Delay(d),s/veh	0.0	16.4	22.2	44.9	3.5	0.0				35.2	0.0	41.9
LnGrp LOS		B	C	D	A					D		D
Approach Vol, veh/h		925			1140						212	
Approach Delay, s/veh		19.1			17.9						40.9	
Approach LOS		B			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	28.5	47.5		17.0		76.0		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	32.0	20.4		26.0		58.0		
Max Q Clear Time (g_c+I1), s	22.5	21.2		12.3		7.9		
Green Ext Time (p_c), s	0.5	0.0		0.6		8.3		

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	349	0	0	610	73	473	3	370	0	0	0
Future Volume (veh/h)	146	349	0	0	610	73	473	3	370	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1881	1881	0	0	1850	1900	1845	1833	1827			
Adj Flow Rate, veh/h	162	388	0	0	678	81	655	0	275			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	1	1	0	0	3	3	3	33	4			
Cap, veh/h	196	2366	0	0	1631	195	863	0	381			
Arrive On Green	0.11	0.66	0.00	0.00	0.52	0.52	0.25	0.00	0.25			
Sat Flow, veh/h	1792	3668	0	0	3257	378	3514	0	1553			
Grp Volume(v), veh/h	162	388	0	0	376	383	655	0	275			
Grp Sat Flow(s),veh/h/ln	1792	1787	0	0	1758	1784	1757	0	1553			
Q Serve(g_s), s	8.3	3.9	0.0	0.0	12.4	12.4	16.3	0.0	15.3			
Cycle Q Clear(g_c), s	8.3	3.9	0.0	0.0	12.4	12.4	16.3	0.0	15.3			
Prop In Lane	1.00		0.00	0.00		0.21	1.00		1.00			
Lane Grp Cap(c), veh/h	196	2366	0	0	906	920	863	0	381			
V/C Ratio(X)	0.83	0.16	0.00	0.00	0.42	0.42	0.76	0.00	0.72			
Avail Cap(c_a), veh/h	286	2366	0	0	906	920	1234	0	545			
HCM Platoon Ratio	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	0.00	0.00	0.95	0.95	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.0	6.0	0.0	0.0	14.0	14.0	32.9	0.0	32.5			
Incr Delay (d2), s/veh	7.9	0.1	0.0	0.0	1.3	1.3	2.3	0.0	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			
%ile BackOfQ(50%),veh/ln	4.6	1.9	0.0	0.0	6.3	6.4	8.2	0.0	7.0			
LnGrp Delay(d),s/veh	48.9	6.2	0.0	0.0	15.4	15.4	35.1	0.0	36.2			
LnGrp LOS	D	A			B	B	D		D			
Approach Vol, veh/h		550			759			930				
Approach Delay, s/veh		18.8			15.4			35.5				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		66.8			13.8	53.1		27.2
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		52.0			15.0	33.5		33.0
Max Q Clear Time (g_c+I1), s		5.9			10.3	14.4		18.3
Green Ext Time (p_c), s		5.7			0.1	5.0		4.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	552	84	16	592	0	91	0	20	0	0	0
Future Volume (veh/h)	59	552	84	16	592	0	91	0	20	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1865	1900	1900	1845	0	1900	0	1900			
Adj Flow Rate, veh/h	64	600	91	17	643	0	99	0	22			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	3	0	0	0	0			
Cap, veh/h	124	2011	304	30	2109	0	145	0	129			
Arrive On Green	0.07	0.65	0.65	0.02	0.60	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	1810	3076	465	1810	3597	0	1810	0	1615			
Grp Volume(v), veh/h	64	345	346	17	643	0	99	0	22			
Grp Sat Flow(s),veh/h/ln	1810	1772	1770	1810	1752	0	1810	0	1615			
Q Serve(g_s), s	1.8	4.5	4.6	0.5	4.8	0.0	2.9	0.0	0.7			
Cycle Q Clear(g_c), s	1.8	4.5	4.6	0.5	4.8	0.0	2.9	0.0	0.7			
Prop In Lane	1.00		0.26	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	124	1158	1157	30	2109	0	145	0	129			
V/C Ratio(X)	0.52	0.30	0.30	0.56	0.30	0.00	0.68	0.00	0.17			
Avail Cap(c_a), veh/h	837	1639	1637	837	3241	0	837	0	747			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	24.3	4.0	4.0	26.4	5.2	0.0	24.2	0.0	23.2			
Incr Delay (d2), s/veh	3.3	0.4	0.4	15.4	0.2	0.0	5.6	0.0	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			
%ile BackOfQ(50%),veh/ln	1.0	2.3	2.3	0.4	2.4	0.0	1.7	0.0	0.3			
LnGrp Delay(d),s/veh	27.6	4.4	4.4	41.8	5.5	0.0	29.8	0.0	23.8			
LnGrp LOS	C	A	A	D	A		C		C			
Approach Vol, veh/h		755			660			121				
Approach Delay, s/veh		6.4			6.4			28.7				
Approach LOS		A			A			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	4.9	40.3			7.7	37.5		8.8
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	25.0	50.0			25.0	50.0		25.0
Max Q Clear Time (g_c+I1), s	2.5	6.6			3.8	6.8		4.9
Green Ext Time (p_c), s	0.0	25.8			0.1	25.7		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.2
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	7	788	898	0
Future Vol, veh/h	0	0	7	788	898	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	7	812	926	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	463	926	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	551	746	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	551	746	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	746	-	-	-	-
HCM Lane V/C Ratio	0.01	-	-	-	-
HCM Control Delay (s)	9.9	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	42	45	59	386	306	35
Future Vol, veh/h	42	45	59	386	306	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	370	-	220	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	2	1	9
Mvmt Flow	46	49	64	420	333	38

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	690	185	371	0	-	0
Stage 1	352	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.2	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.25	-	-	-
Pot Cap-1 Maneuver	383	832	1163	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	362	832	1163	-	-	-
Mov Cap-2 Maneuver	362	-	-	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	661	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1163	-	362	832	-	-
HCM Lane V/C Ratio	0.055	-	0.126	0.059	-	-
HCM Control Delay (s)	8.3	-	16.4	9.6	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	497	85	26	536	8	97	1	23	18	3	85
Future Volume (veh/h)	33	497	85	26	536	8	97	1	23	18	3	85
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1868	1900	1900	1863	1900	1900	1780	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	523	89	27	564	8	102	1	24	19	3	89
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	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, %	0	2	2	0	2	2	0	0	0	0	0	0
Cap, veh/h	70	1228	208	131	1639	23	153	5	124	125	20	128
Arrive On Green	0.04	0.40	0.40	0.07	0.46	0.46	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1810	3037	515	1810	3574	51	1810	61	1462	1573	248	1615
Grp Volume(v), veh/h	35	305	307	27	279	293	102	0	25	22	0	89
Grp Sat Flow(s),veh/h/ln	1810	1775	1777	1810	1770	1854	1810	0	1522	1821	0	1615
Q Serve(g_s), s	1.0	6.2	6.2	0.7	5.1	5.1	2.7	0.0	0.8	0.6	0.0	2.7
Cycle Q Clear(g_c), s	1.0	6.2	6.2	0.7	5.1	5.1	2.7	0.0	0.8	0.6	0.0	2.7
Prop In Lane	1.00		0.29	1.00		0.03	1.00		0.96	0.86		1.00
Lane Grp Cap(c), veh/h	70	718	719	131	812	850	153	0	129	144	0	128
V/C Ratio(X)	0.50	0.42	0.43	0.21	0.34	0.34	0.66	0.00	0.19	0.15	0.00	0.70
Avail Cap(c_a), veh/h	1082	2123	2126	1082	2117	2218	1082	0	911	1089	0	966
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	23.6	10.7	10.8	21.9	8.7	8.7	22.3	0.0	21.4	21.5	0.0	22.5
Incr Delay (d2), s/veh	5.5	1.4	1.5	0.8	0.9	0.9	4.9	0.0	0.7	0.5	0.0	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	0.6	3.3	3.3	0.4	2.7	2.8	1.6	0.0	0.3	0.3	0.0	1.4
LnGrp Delay(d),s/veh	29.2	12.2	12.2	22.7	9.6	9.6	27.1	0.0	22.1	22.0	0.0	29.1
LnGrp LOS	C	B	B	C	A	A	C		C	C		C
Approach Vol, veh/h		647			599			127			111	
Approach Delay, s/veh		13.1			10.2			26.1			27.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	25.3		8.3	5.9	28.0		8.0
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	30.0	* 60		30.0	30.0	60.0		30.0
Max Q Clear Time (g_c+I1), s	2.7	8.2		4.7	3.0	7.1		4.7
Green Ext Time (p_c), s	8.9	12.0		0.4	0.1	11.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	499	229	562	528	221	677
Future Volume (veh/h)	499	229	562	528	221	677
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	542	249	611	574	240	736
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	759	349	1851	925	293	2168
Arrive On Green	0.22	0.22	0.36	0.36	0.17	0.61
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	542	249	611	574	240	736
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	7.9	7.8	4.7	12.7	7.0	5.5
Cycle Q Clear(g_c), s	7.9	7.8	4.7	12.7	7.0	5.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	759	349	1851	925	293	2168
V/C Ratio(X)	0.71	0.71	0.33	0.62	0.82	0.34
Avail Cap(c_a), veh/h	1150	529	1851	925	346	2168
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.4	19.4	12.4	7.3	21.7	5.1
Incr Delay (d2), s/veh	1.3	2.7	0.5	3.1	12.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	3.7	2.2	9.1	4.4	2.8
LnGrp Delay(d),s/veh	20.7	22.1	12.9	10.4	34.3	5.5
LnGrp LOS	C	C	B	B	C	A
Approach Vol, veh/h	791		1185			976
Approach Delay, s/veh	21.2		11.7			12.6
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.4	24.1				37.5		16.4
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	10.5	18.0				33.0		18.0
Max Q Clear Time (g_c+I1), s	9.0	14.7				7.5		9.9
Green Ext Time (p_c), s	0.1	2.7				13.8		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	166	15	0	174	0	6
Future Vol, veh/h	166	15	0	174	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	180	16	0	189	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	188
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	854
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	854
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	854	-	-	-
HCM Lane V/C Ratio	0.008	-	-	-
HCM Control Delay (s)	9.2	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Intersection Delay, s/veh	21.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	195	205	300	174	4	236	3	108	3	2	11
Future Vol, veh/h	6	195	205	300	174	4	236	3	108	3	2	11
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	17	6	5	2	6	0	4	0	6	0	0	0
Mvmt Flow	7	241	253	370	215	5	291	4	133	4	2	14
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	16.6	26.1	21.2	11.9
HCM LOS	C	D	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	99%	0%	3%	0%	100%	0%	19%
Vol Thru, %	1%	0%	97%	0%	0%	98%	12%
Vol Right, %	0%	100%	0%	100%	0%	2%	69%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	239	108	201	205	300	178	16
LT Vol	236	0	6	0	300	0	3
Through Vol	3	0	195	0	0	174	2
RT Vol	0	108	0	205	0	4	11
Lane Flow Rate	295	133	248	253	370	220	20
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.664	0.252	0.521	0.466	0.781	0.436	0.046
Departure Headway (Hd)	8.099	6.808	7.554	6.628	7.594	7.135	8.418
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	528	479	544	478	505	425
Service Time	5.832	4.54	5.292	4.365	5.331	4.872	6.473
HCM Lane V/C Ratio	0.658	0.252	0.518	0.465	0.774	0.436	0.047
HCM Control Delay	25.5	11.8	18.3	15	32.5	15.3	11.9
HCM Lane LOS	D	B	C	B	D	C	B
HCM 95th-tile Q	4.7	1	3	2.5	7	2.2	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	55	457	5	34	388
Future Vol, veh/h	10	55	457	5	34	388
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	3	0	12	4
Mvmt Flow	10	57	476	5	35	404

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	954	479	0	0	481	0
Stage 1	479	-	-	-	-	-
Stage 2	475	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.22	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.308	-
Pot Cap-1 Maneuver	289	591	-	-	1031	-
Stage 1	627	-	-	-	-	-
Stage 2	630	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	279	591	-	-	1031	-
Mov Cap-2 Maneuver	279	-	-	-	-	-
Stage 1	627	-	-	-	-	-
Stage 2	609	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.2	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	504	1031	-
HCM Lane V/C Ratio	-	-	0.134	0.034	-
HCM Control Delay (s)	-	-	13.2	8.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	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	1	3	3	47	1	2	6	463	30	6	418	2
Future Vol, veh/h	1	3	3	47	1	2	6	463	30	6	418	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	-	-	30	-	-	30	105	-	210	105	-	-
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, %	0	0	0	0	0	0	0	4	8	0	4	50
Mvmt Flow	1	3	3	51	1	2	7	503	33	7	454	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	985	984	455	986	986	503	457	0	0	503	0	0
Stage 1	468	468	-	516	516	-	-	-	-	-	-	-
Stage 2	517	516	-	470	470	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	229	250	609	229	250	573	1114	-	-	1072	-	-
Stage 1	579	565	-	546	538	-	-	-	-	-	-	-
Stage 2	545	538	-	578	563	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	225	247	609	223	247	573	1114	-	-	1072	-	-
Mov Cap-2 Maneuver	225	247	-	223	247	-	-	-	-	-	-	-
Stage 1	575	561	-	543	535	-	-	-	-	-	-	-
Stage 2	538	535	-	568	559	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.2	25.4	0.1	0.1
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	241	609	223	573	1072	-	-
HCM Lane V/C Ratio	0.006	-	-	0.018	0.005	0.234	0.004	0.006	-	-
HCM Control Delay (s)	8.3	-	-	20.2	10.9	26	11.3	8.4	-	-
HCM Lane LOS	A	-	-	C	B	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.9	0	0	-	-

Intersection	
Intersection Delay, s/veh	16.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	87	29	118	57	11	4	95	133	37	7	128	57
Future Vol, veh/h	87	29	118	57	11	4	95	133	37	7	128	57
Peak Hour Factor	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Heavy Vehicles, %	3	0	1	2	0	0	0	2	5	0	3	4
Mvmt Flow	143	48	193	93	18	7	156	218	61	11	210	93
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	15.2	15.1	17.9	15.2
HCM LOS	C	C	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	75%	0%	79%	100%	0%	0%
Vol Thru, %	0%	78%	25%	0%	15%	0%	100%	0%
Vol Right, %	0%	22%	0%	100%	6%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	170	116	118	72	7	128	57
LT Vol	95	0	87	0	57	7	0	0
Through Vol	0	133	29	0	11	0	128	0
RT Vol	0	37	0	118	4	0	0	57
Lane Flow Rate	156	279	190	193	118	11	210	93
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.346	0.57	0.426	0.372	0.287	0.026	0.457	0.185
Departure Headway (Hd)	7.999	7.364	8.073	6.927	8.768	8.296	7.835	7.134
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	449	488	445	518	408	431	460	502
Service Time	5.76	5.124	5.836	4.689	6.546	6.061	5.6	4.899
HCM Lane V/C Ratio	0.347	0.572	0.427	0.373	0.289	0.026	0.457	0.185
HCM Control Delay	15	19.5	16.7	13.8	15.1	11.3	17.1	11.5
HCM Lane LOS	B	C	C	B	C	B	C	B
HCM 95th-tile Q	1.5	3.5	2.1	1.7	1.2	0.1	2.3	0.7

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	11	23	279	272	2
Future Vol, veh/h	1	11	23	279	272	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	3	2	0
Mvmt Flow	1	12	26	310	302	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	664	303	304	0	-	0
Stage 1	303	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	429	741	1246	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	420	741	1246	-	-	-
Mov Cap-2 Maneuver	420	-	-	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	695	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1246	-	697	-	-
HCM Lane V/C Ratio	0.021	-	0.019	-	-
HCM Control Delay (s)	8	-	10.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	39	125	177	31	124	159
Future Vol, veh/h	39	125	177	31	124	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	15	2	3
Mvmt Flow	42	136	192	34	135	173

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	651	209	0	0	226	0
Stage 1	209	-	-	-	-	-
Stage 2	442	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	436	836	-	-	1342	-
Stage 1	831	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	392	836	-	-	1342	-
Mov Cap-2 Maneuver	392	-	-	-	-	-
Stage 1	831	-	-	-	-	-
Stage 2	586	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	659	1342	-
HCM Lane V/C Ratio	-	-	0.271	0.1	-
HCM Control Delay (s)	-	-	12.5	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	1.1	0.3	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	240	3	0	196
Future Vol, veh/h	1	1	240	3	0	196
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	48	48	48	48	48	48
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	2	2	500	6	0	408

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	911	503	0	0	506	0
Stage 1	503	-	-	-	-	-
Stage 2	408	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	307	573	-	-	1069	-
Stage 1	612	-	-	-	-	-
Stage 2	676	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	307	573	-	-	1069	-
Mov Cap-2 Maneuver	307	-	-	-	-	-
Stage 1	612	-	-	-	-	-
Stage 2	676	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	307	573	1069	-
HCM Lane V/C Ratio	-	-	0.007	0.004	-	-
HCM Control Delay (s)	-	-	16.8	11.3	0	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	1	29	0	13	2	230	35	13	184	0
Future Vol, veh/h	0	0	1	29	0	13	2	230	35	13	184	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	51	51	51	51	51	51	51	51	51	51	51	51
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	2	0
Mvmt Flow	0	0	2	57	0	25	4	451	69	25	361	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	918	939	361	906	905	485	361	0	0	520	0	0
Stage 1	412	412	-	493	493	-	-	-	-	-	-	-
Stage 2	506	527	-	413	412	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	254	266	688	259	278	586	1209	-	-	1056	-	-
Stage 1	621	598	-	562	550	-	-	-	-	-	-	-
Stage 2	552	532	-	620	598	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	238	259	688	253	271	586	1209	-	-	1056	-	-
Mov Cap-2 Maneuver	238	259	-	253	271	-	-	-	-	-	-	-
Stage 1	619	584	-	560	548	-	-	-	-	-	-	-
Stage 2	526	530	-	604	584	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	21	0.1	0.6
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1209	-	-	688	307	1056	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003	0.268	0.024	-	-
HCM Control Delay (s)	8	-	-	10.2	21	8.5	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	1.1	0.1	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	17	250	69	7	207
Future Vol, veh/h	68	17	250	69	7	207
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	131	33	481	133	13	398

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	972	547	0	0	613	0
Stage 1	547	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	282	541	-	-	976	-
Stage 1	584	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	278	541	-	-	976	-
Mov Cap-2 Maneuver	408	-	-	-	-	-
Stage 1	584	-	-	-	-	-
Stage 2	655	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	408	541	976	-
HCM Lane V/C Ratio	-	-	0.321	0.06	0.014	-
HCM Control Delay (s)	-	-	17.9	12.1	8.7	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1.4	0.2	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	21	33	292	270	1
Future Vol, veh/h	0	21	33	292	270	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	12	10	1	1	0
Mvmt Flow	0	38	60	531	491	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1143	492	493	0	-	0
Stage 1	492	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Critical Hdwy	6.4	6.32	4.2	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.408	2.29	-	-	-
Pot Cap-1 Maneuver	223	557	1030	-	-	-
Stage 1	619	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	210	557	1030	-	-	-
Mov Cap-2 Maneuver	344	-	-	-	-	-
Stage 1	619	-	-	-	-	-
Stage 2	493	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1030	-	557	-	-
HCM Lane V/C Ratio	0.058	-	0.069	-	-
HCM Control Delay (s)	8.7	-	11.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	149	9	2	19	111	481	5	5	565	8
Future Vol, veh/h	0	0	149	9	2	19	111	481	5	5	565	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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	50	4	22	0	5	1	2	0	0	2	13
Mvmt Flow	0	0	204	12	3	26	152	659	7	7	774	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	774	1754	1754	662	774	0	0	666	0	0
Stage 1	-	-	-	966	966	-	-	-	-	-	-	-
Stage 2	-	-	-	788	788	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	7.32	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	3.698	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	395	59	86	457	846	-	-	933	-	-
Stage 1	0	0	-	282	336	-	-	-	-	-	-	-
Stage 2	0	0	-	356	405	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	395	24	70	457	846	-	-	933	-	-
Mov Cap-2 Maneuver	-	-	-	24	70	-	-	-	-	-	-	-
Stage 1	-	-	-	231	276	-	-	-	-	-	-	-
Stage 2	-	-	-	171	402	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.5	121.4	1.9	0.1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	846	-	-	395	67	933	-	-
HCM Lane V/C Ratio	0.18	-	-	0.517	0.613	0.007	-	-
HCM Control Delay (s)	10.2	-	-	23.5	121.4	8.9	-	-
HCM Lane LOS	B	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	2.9	2.6	0	-	-

Intersection	
Int Delay, s/veh	1.6

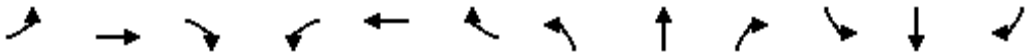
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	0	17	168	11	11
Future Vol, veh/h	5	0	17	168	11	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	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	5	0	18	183	12	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	5	0	225	5
Stage 1	-	-	-	-	5	-
Stage 2	-	-	-	-	220	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1616	-	763	1078
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	817	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1616	-	755	1078
Mov Cap-2 Maneuver	-	-	-	-	729	-
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	808	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	870	-	-	1616	-
HCM Lane V/C Ratio	0.027	-	-	0.011	-
HCM Control Delay (s)	9.3	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

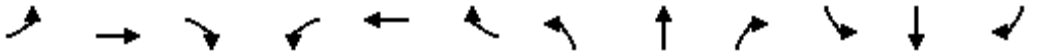
Project Driveway Option B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	104	106	0	91	0	524	52	127	776	1
Future Volume (vph)	0	0	104	106	0	91	0	524	52	127	776	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1453	1770		1495		3406	1583	1736	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1453	1770		1495		3406	1583	1736	3539	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	111	113	0	97	0	557	55	135	826	1
RTOR Reduction (vph)	0	0	101	0	0	70	0	0	30	0	0	0
Lane Group Flow (vph)	0	0	10	113	0	27	0	557	25	135	827	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			4.5	5.3		14.3		18.3	23.6	6.2	28.5	
Effective Green, g (s)			4.5	5.3		14.3		18.3	23.6	6.2	28.5	
Actuated g/C Ratio			0.09	0.10		0.27		0.35	0.45	0.12	0.54	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			125	179		408		1191	714	205	1928	
v/s Ratio Prot				c0.06				0.16	0.00	c0.08	c0.23	
v/s Ratio Perm			0.01			c0.02			0.01			
v/c Ratio			0.08	0.63		0.07		0.47	0.03	0.66	0.43	
Uniform Delay, d1			22.0	22.6		14.1		13.2	8.0	22.0	7.1	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.3	7.1		0.1		0.4	0.0	5.7	0.2	
Delay (s)			22.3	29.6		14.1		13.6	8.0	27.8	7.3	
Level of Service			C	C		B		B	A	C	A	
Approach Delay (s)		22.3			22.5			13.1			10.2	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	52.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	24	109	159	42	28	225	578	123	89	892	85
Future Volume (veh/h)	73	24	109	159	42	28	225	578	123	89	892	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1793	1900	1743	1845	1863
Adj Flow Rate, veh/h	76	25	114	166	44	29	234	602	128	93	929	89
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	7	9	3	2
Cap, veh/h	95	138	194	201	248	217	275	2014	421	118	1424	634
Arrive On Green	0.06	0.08	0.08	0.12	0.14	0.14	0.16	0.50	0.50	0.07	0.41	0.41
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	4058	848	1660	3505	1561
Grp Volume(v), veh/h	76	25	114	166	44	29	234	482	248	93	929	89
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1632	1643	1660	1752	1561
Q Serve(g_s), s	3.4	1.0	3.3	7.2	1.6	1.2	9.8	6.4	6.6	4.1	15.7	2.6
Cycle Q Clear(g_c), s	3.4	1.0	3.3	7.2	1.6	1.2	9.8	6.4	6.6	4.1	15.7	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	95	138	194	201	248	217	275	1619	815	118	1424	634
V/C Ratio(X)	0.80	0.18	0.59	0.83	0.18	0.13	0.85	0.30	0.30	0.79	0.65	0.14
Avail Cap(c_a), veh/h	237	711	1000	237	705	616	325	1619	815	289	1592	709
HCM Platoon Ratio	1.00	1.00	1.00	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	34.2	31.6	32.7	31.5	27.7	27.5	30.0	10.9	11.0	33.6	17.6	13.7
Incr Delay (d2), s/veh	13.8	0.6	2.8	18.2	0.3	0.3	16.7	0.2	0.4	10.9	1.3	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	0.5	1.2	4.3	0.8	0.5	5.9	2.9	3.1	2.2	7.9	1.2
LnGrp Delay(d),s/veh	48.0	32.2	35.5	49.7	28.0	27.8	46.7	11.2	11.4	44.6	18.9	14.0
LnGrp LOS	D	C	D	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		215			239			964			1111	
Approach Delay, s/veh		39.5			43.1			19.9			20.7	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	41.5	13.0	9.8	15.8	34.9	8.3	14.5
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	12.8	34.6	10.6	30.0	14.0	33.4	10.6	30.0
Max Q Clear Time (g_c+I1), s	6.1	8.6	9.2	5.3	11.8	17.7	5.4	3.6
Green Ext Time (p_c), s	0.1	20.8	0.1	0.9	0.2	12.1	0.1	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

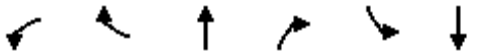
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	16	576	981	4
Future Vol, veh/h	0	0	16	576	981	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	17	606	1033	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	518	1037	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	508	678	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	508	678	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	678	-	-	-	-
HCM Lane V/C Ratio	0.025	-	-	-	-
HCM Control Delay (s)	10.4	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	142	58	534	144	56	925
Future Volume (veh/h)	142	58	534	144	56	925
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	154	63	580	157	61	1005
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	380	175	2564	973	108	2383
Arrive On Green	0.11	0.11	0.50	0.50	0.06	0.67
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	154	63	580	157	61	1005
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	1.7	1.5	2.7	1.8	1.4	5.4
Cycle Q Clear(g_c), s	1.7	1.5	2.7	1.8	1.4	5.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	380	175	2564	973	108	2383
V/C Ratio(X)	0.41	0.36	0.23	0.16	0.57	0.42
Avail Cap(c_a), veh/h	1489	685	2564	973	235	2383
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	17.2	17.1	5.8	3.4	19.0	3.1
Incr Delay (d2), s/veh	0.7	1.2	0.2	0.4	4.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.7	1.3	1.1	0.8	2.7
LnGrp Delay(d),s/veh	17.9	18.4	6.0	3.8	23.6	3.7
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	217		737			1066
Approach Delay, s/veh	18.1		5.5			4.8
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.0	25.5				32.5		9.1
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	5.5	18.0				28.0		18.0
Max Q Clear Time (g_c+I1), s	3.4	4.7				7.4		3.7
Green Ext Time (p_c), s	0.0	9.0				12.2		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

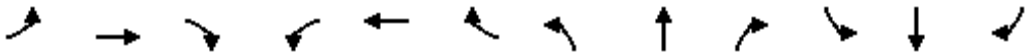
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	179	0	0	197	0	0
Future Vol, veh/h	179	0	0	197	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	-	-	-	-	-	-
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	195	0	0	214	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	195
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	846
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	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

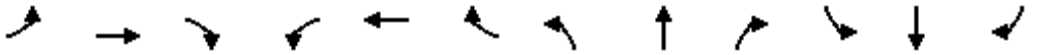
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	142	118	0	106	0	984	119	106	802	0
Future Volume (vph)	0	0	142	118	0	106	0	984	119	106	802	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1599	1770		1553		3539	1615	1787	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1599	1770		1553		3539	1615	1787	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	148	123	0	110	0	1025	124	110	835	0
RTOR Reduction (vph)	0	0	126	0	0	82	0	0	59	0	0	0
Lane Group Flow (vph)	0	0	22	123	0	28	0	1025	65	110	835	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			7.1	5.2		16.8		28.7	33.9	6.1	38.8	
Effective Green, g (s)			7.1	5.2		16.8		28.7	33.9	6.1	38.8	
Actuated g/C Ratio			0.11	0.08		0.26		0.44	0.52	0.09	0.60	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			174	141		400		1560	840	167	2109	
v/s Ratio Prot				c0.07				c0.29	0.01	c0.06	0.24	
v/s Ratio Perm			c0.01			0.02			0.03			
v/c Ratio			0.13	0.87		0.07		0.66	0.08	0.66	0.40	
Uniform Delay, d1			26.2	29.6		18.3		14.3	7.8	28.5	7.0	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.3	40.5		0.1		1.1	0.0	7.0	0.2	
Delay (s)			26.5	70.1		18.4		15.4	7.8	35.5	7.1	
Level of Service			C	E		B		B	A	D	A	
Approach Delay (s)		26.5			45.7			14.6			10.4	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	65.1	Sum of lost time (s)	18.0
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	28	288	137	26	33	218	1114	98	61	1149	87
Future Volume (veh/h)	174	28	288	137	26	33	218	1114	98	61	1149	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1900	1863	1863	1881
Adj Flow Rate, veh/h	185	30	306	146	28	35	232	1185	104	65	1222	93
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	1
Cap, veh/h	219	267	400	179	231	193	266	2475	217	84	1461	651
Arrive On Green	0.12	0.15	0.15	0.10	0.13	0.13	0.15	0.52	0.52	0.05	0.41	0.41
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	4761	418	1774	3539	1577
Grp Volume(v), veh/h	185	30	306	146	28	35	232	844	445	65	1222	93
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1695	1789	1774	1770	1577
Q Serve(g_s), s	9.2	1.3	9.9	7.5	1.2	1.9	12.1	14.6	14.6	3.3	28.5	3.4
Cycle Q Clear(g_c), s	9.2	1.3	9.9	7.5	1.2	1.9	12.1	14.6	14.6	3.3	28.5	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	219	267	400	179	231	193	266	1762	930	84	1461	651
V/C Ratio(X)	0.84	0.11	0.77	0.82	0.12	0.18	0.87	0.48	0.48	0.77	0.84	0.14
Avail Cap(c_a), veh/h	240	597	893	233	597	498	300	1762	930	189	1533	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	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	39.5	34.0	37.7	40.4	35.6	35.9	38.0	14.1	14.1	43.3	24.2	16.8
Incr Delay (d2), s/veh	21.5	0.2	3.1	15.7	0.2	0.4	21.6	0.4	0.8	14.0	4.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.7	3.9	4.4	0.6	0.8	7.3	6.9	7.4	2.0	14.7	1.5
LnGrp Delay(d),s/veh	61.1	34.2	40.8	56.1	35.8	36.3	59.6	14.5	14.9	57.3	28.8	17.0
LnGrp LOS	E	C	D	E	D	D	E	B	B	E	C	B
Approach Vol, veh/h		521			209			1521			1380	
Approach Delay, s/veh		47.6			50.1			21.5			29.4	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	52.7	13.3	17.4	18.2	42.9	15.1	15.6
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	9.8	46.0	12.2	30.0	16.0	39.8	12.2	30.0
Max Q Clear Time (g_c+I1), s	5.3	16.6	9.5	11.9	14.1	30.5	11.2	3.9
Green Ext Time (p_c), s	0.0	27.8	0.1	1.5	0.1	7.5	0.1	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	29.9
HCM 2010 LOS	C

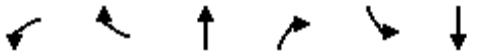
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	1103	1061	2
Future Vol, veh/h	0	20	5	1103	1061	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	1137	1094	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	548	1096	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.35	2.2	-	-	-
Pot Cap-1 Maneuver	0	473	644	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	473	644	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	644	-	473	-	-
HCM Lane V/C Ratio	0.008	-	0.044	-	-
HCM Control Delay (s)	10.6	-	13	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	370	167	947	356	148	933
Future Volume (veh/h)	370	167	947	356	148	933
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	402	182	1029	387	161	1014
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	618	284	2240	982	206	2282
Arrive On Green	0.18	0.18	0.44	0.44	0.12	0.64
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	402	182	1029	387	161	1014
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	5.6	5.5	7.3	6.3	4.5	7.3
Cycle Q Clear(g_c), s	5.6	5.5	7.3	6.3	4.5	7.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	618	284	2240	982	206	2282
V/C Ratio(X)	0.65	0.64	0.46	0.39	0.78	0.44
Avail Cap(c_a), veh/h	1210	557	2240	982	329	2282
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.5	19.5	10.0	4.9	22.0	4.5
Incr Delay (d2), s/veh	1.2	2.4	0.7	1.2	6.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.6	3.5	4.3	2.6	3.7
LnGrp Delay(d),s/veh	20.7	21.9	10.7	6.1	28.3	5.2
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	584		1416			1175
Approach Delay, s/veh	21.0		9.5			8.3
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.5	27.0				37.5		13.7
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	9.5	19.0				33.0		18.0
Max Q Clear Time (g_c+I1), s	6.5	9.3				9.3		7.6
Green Ext Time (p_c), s	0.1	8.3				17.6		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.2
HCM 2010 LOS	B

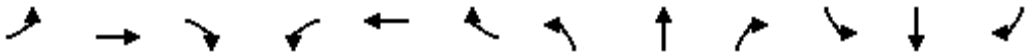
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	218	7	0	224	0	3
Future Vol, veh/h	218	7	0	224	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	-	-	-	-	-	-
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	237	8	0	243	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	241
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	798
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	798
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

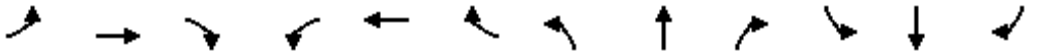
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	798	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-
HCM Control Delay (s)	9.5	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	69	125	0	55	0	705	95	91	716	0
Future Volume (vph)	0	0	69	125	0	55	0	705	95	91	716	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1590	1805		1455		3505	1599	1752	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1590	1805		1455		3505	1599	1752	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	72	130	0	57	0	734	99	95	746	0
RTOR Reduction (vph)	0	0	68	0	0	44	0	0	48	0	0	0
Lane Group Flow (vph)	0	0	4	130	0	13	0	734	51	95	746	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			2.9	5.2		12.6		23.1	28.3	5.4	32.5	
Effective Green, g (s)			2.9	5.2		12.6		23.1	28.3	5.4	32.5	
Actuated g/C Ratio			0.05	0.10		0.23		0.42	0.52	0.10	0.60	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			84	171		335		1482	828	173	2106	
v/s Ratio Prot				c0.07				c0.21	0.01	c0.05	0.21	
v/s Ratio Perm			0.00			c0.01			0.03			
v/c Ratio			0.05	0.76		0.04		0.50	0.06	0.55	0.35	
Uniform Delay, d1			24.5	24.1		16.3		11.5	6.5	23.4	5.7	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.2	17.9		0.1		0.4	0.0	1.9	0.1	
Delay (s)			24.8	42.0		16.4		11.9	6.6	25.3	5.8	
Level of Service			C	D		B		B	A	C	A	
Approach Delay (s)		24.8			34.2			11.2			8.0	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	54.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	27	204	174	28	23	198	825	157	64	943	112
Future Volume (veh/h)	131	27	204	174	28	23	198	825	157	64	943	112
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1866	1900	1845	1863	1881
Adj Flow Rate, veh/h	136	28	212	181	29	24	206	859	164	67	982	117
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	2	3	2	1
Cap, veh/h	170	207	315	219	247	226	245	2126	404	86	1425	635
Arrive On Green	0.10	0.11	0.11	0.12	0.14	0.14	0.14	0.49	0.49	0.05	0.40	0.40
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	4300	816	1757	3539	1577
Grp Volume(v), veh/h	136	28	212	181	29	24	206	677	346	67	982	117
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1698	1721	1757	1770	1577
Q Serve(g_s), s	5.9	1.1	5.7	7.8	1.1	1.0	9.0	9.8	9.9	2.9	17.8	3.7
Cycle Q Clear(g_c), s	5.9	1.1	5.7	7.8	1.1	1.0	9.0	9.8	9.9	2.9	17.8	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	170	207	315	219	247	226	245	1679	851	86	1425	635
V/C Ratio(X)	0.80	0.14	0.67	0.83	0.12	0.11	0.84	0.40	0.41	0.78	0.69	0.18
Avail Cap(c_a), veh/h	231	705	1075	258	704	646	291	1679	851	217	1530	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	34.3	31.0	33.1	33.2	29.2	29.2	32.5	12.4	12.4	36.6	19.2	15.0
Incr Delay (d2), s/veh	13.2	0.3	2.5	17.1	0.2	0.2	16.9	0.3	0.7	14.0	1.7	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	3.5	0.6	2.3	4.8	0.6	0.5	5.4	4.6	4.8	1.7	8.9	1.7
LnGrp Delay(d),s/veh	47.5	31.3	35.6	50.3	29.4	29.4	49.5	12.7	13.1	50.6	20.9	15.3
LnGrp LOS	D	C	D	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		376			234			1229			1166	
Approach Delay, s/veh		39.6			45.6			19.0			22.0	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	43.4	13.7	12.8	15.0	36.3	11.6	14.9
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	9.6	37.0	11.4	30.0	13.0	33.6	10.3	31.1
Max Q Clear Time (g_c+I1), s	4.9	11.9	9.8	7.7	11.0	19.8	7.9	3.1
Green Ext Time (p_c), s	0.0	22.3	0.1	1.2	0.1	11.5	0.1	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

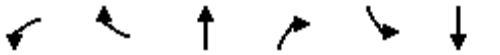
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	7	800	910	0
Future Vol, veh/h	0	0	7	800	910	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	7	825	938	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	469	938	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	546	739	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	546	739	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	739	-	-	-	-
HCM Lane V/C Ratio	0.01	-	-	-	-
HCM Control Delay (s)	9.9	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	439	241	562	465	233	677
Future Volume (veh/h)	439	241	562	465	233	677
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	477	262	611	505	253	736
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	728	335	2076	981	308	2303
Arrive On Green	0.21	0.21	0.41	0.41	0.17	0.65
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	477	262	611	505	253	736
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	8.3	10.2	5.3	11.6	9.0	6.0
Cycle Q Clear(g_c), s	8.3	10.2	5.3	11.6	9.0	6.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	728	335	2076	981	308	2303
V/C Ratio(X)	0.66	0.78	0.29	0.51	0.82	0.32
Avail Cap(c_a), veh/h	975	448	2076	981	530	2303
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.6	24.3	13.0	6.9	26.0	5.0
Incr Delay (d2), s/veh	1.0	6.3	0.4	1.9	5.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	5.1	2.5	8.4	4.8	3.0
LnGrp Delay(d),s/veh	24.6	30.6	13.4	8.9	31.5	5.4
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	739		1116			989
Approach Delay, s/veh	26.7		11.3			12.1
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.8	31.2				47.0		18.3
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	19.5	18.5				42.5		18.5
Max Q Clear Time (g_c+I1), s	11.0	13.6				8.0		12.2
Green Ext Time (p_c), s	0.5	3.8				15.5		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.6
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	172	15	0	180	0	6
Future Vol, veh/h	172	15	0	180	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	187	16	0	196	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	195
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	846
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	WB	NB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

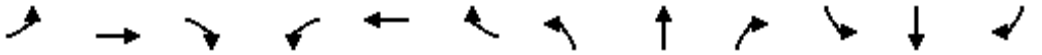
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	846	-	-	-
HCM Lane V/C Ratio	0.008	-	-	-
HCM Control Delay (s)	9.3	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Project Driveway Option C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	104	104	0	93	0	522	50	127	776	1
Future Volume (vph)	0	0	104	104	0	93	0	522	50	127	776	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1448	1770		1495		3406	1583	1736	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1448	1770		1495		3406	1583	1736	3539	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	111	111	0	99	0	555	53	135	826	1
RTOR Reduction (vph)	0	0	105	0	0	74	0	0	27	0	0	0
Lane Group Flow (vph)	0	0	6	111	0	25	0	555	26	135	827	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			3.0	5.5		13.0		19.9	25.4	5.2	29.1	
Effective Green, g (s)			3.0	5.5		13.0		19.9	25.4	5.2	29.1	
Actuated g/C Ratio			0.06	0.11		0.25		0.39	0.49	0.10	0.56	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			84	188		376		1313	779	174	1995	
v/s Ratio Prot				c0.06				0.16	0.00	c0.08	c0.23	
v/s Ratio Perm			0.00			c0.02			0.01			
v/c Ratio			0.08	0.59		0.07		0.42	0.03	0.78	0.41	
Uniform Delay, d1			23.0	22.0		14.7		11.6	6.8	22.6	6.4	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.4	4.9		0.1		0.3	0.0	17.7	0.2	
Delay (s)			23.4	26.9		14.8		11.9	6.8	40.3	6.6	
Level of Service			C	C		B		B	A	D	A	
Approach Delay (s)		23.4			21.2			11.5			11.3	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	51.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	24	109	159	42	28	225	578	123	89	892	85
Future Volume (veh/h)	73	24	109	159	42	28	225	578	123	89	892	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1793	1900	1743	1845	1863
Adj Flow Rate, veh/h	76	25	114	166	44	29	234	602	128	93	929	89
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	7	9	3	2
Cap, veh/h	95	138	194	201	248	217	275	2014	421	118	1424	634
Arrive On Green	0.06	0.08	0.08	0.12	0.14	0.14	0.16	0.50	0.50	0.07	0.41	0.41
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	4058	848	1660	3505	1561
Grp Volume(v), veh/h	76	25	114	166	44	29	234	482	248	93	929	89
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1632	1643	1660	1752	1561
Q Serve(g_s), s	3.4	1.0	3.3	7.2	1.6	1.2	9.8	6.4	6.6	4.1	15.7	2.6
Cycle Q Clear(g_c), s	3.4	1.0	3.3	7.2	1.6	1.2	9.8	6.4	6.6	4.1	15.7	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	95	138	194	201	248	217	275	1619	815	118	1424	634
V/C Ratio(X)	0.80	0.18	0.59	0.83	0.18	0.13	0.85	0.30	0.30	0.79	0.65	0.14
Avail Cap(c_a), veh/h	237	711	1000	237	705	616	325	1619	815	289	1592	709
HCM Platoon Ratio	1.00	1.00	1.00	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	34.2	31.6	32.7	31.5	27.7	27.5	30.0	10.9	11.0	33.6	17.6	13.7
Incr Delay (d2), s/veh	13.8	0.6	2.8	18.2	0.3	0.3	16.7	0.2	0.4	10.9	1.3	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	0.5	1.2	4.3	0.8	0.5	5.9	2.9	3.1	2.2	7.9	1.2
LnGrp Delay(d),s/veh	48.0	32.2	35.5	49.7	28.0	27.8	46.7	11.2	11.4	44.6	18.9	14.0
LnGrp LOS	D	C	D	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		215			239			964			1111	
Approach Delay, s/veh		39.5			43.1			19.9			20.7	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	41.5	13.0	9.8	15.8	34.9	8.3	14.5
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	12.8	34.6	10.6	30.0	14.0	33.4	10.6	30.0
Max Q Clear Time (g_c+I1), s	6.1	8.6	9.2	5.3	11.8	17.7	5.4	3.6
Green Ext Time (p_c), s	0.1	20.8	0.1	0.9	0.2	12.1	0.1	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	16	572	979	4
Future Vol, veh/h	0	0	16	572	979	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	17	602	1031	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	518	1035	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	508	679	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	508	679	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	679	-	-	-	-
HCM Lane V/C Ratio	0.025	-	-	-	-
HCM Control Delay (s)	10.4	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	142	54	534	144	54	925
Future Volume (veh/h)	142	54	534	144	54	925
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	154	59	580	157	59	1005
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	379	174	2572	975	105	2384
Arrive On Green	0.11	0.11	0.51	0.51	0.06	0.67
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	154	59	580	157	59	1005
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	1.7	1.4	2.6	1.8	1.3	5.4
Cycle Q Clear(g_c), s	1.7	1.4	2.6	1.8	1.3	5.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	379	174	2572	975	105	2384
V/C Ratio(X)	0.41	0.34	0.23	0.16	0.56	0.42
Avail Cap(c_a), veh/h	1490	686	2572	975	235	2384
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	17.2	17.1	5.7	3.4	19.0	3.1
Incr Delay (d2), s/veh	0.7	1.1	0.2	0.4	4.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.7	1.3	1.1	0.8	2.7
LnGrp Delay(d),s/veh	17.9	18.2	5.9	3.8	23.6	3.6
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	213		737			1064
Approach Delay, s/veh	18.0		5.5			4.8
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.0	25.5				32.5		9.1
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	5.5	18.0				28.0		18.0
Max Q Clear Time (g_c+I1), s	3.3	4.6				7.4		3.7
Green Ext Time (p_c), s	0.0	9.0				12.2		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	177	0	0	197	0	0
Future Vol, veh/h	177	0	0	197	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	-	-	-	-	-	-
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	192	0	0	214	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	192
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	850
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	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	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	177	1	3	195	5	4
Future Vol, veh/h	177	1	3	195	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	192	1	3	212	5	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	193	0	411	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	218	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1380	-	597	849
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	818	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1380	-	596	849
Mov Cap-2 Maneuver	-	-	-	-	650	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	816	-

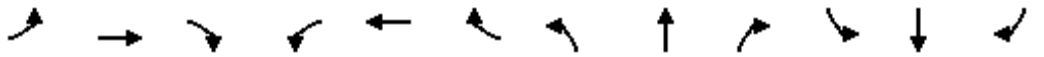
Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	726	-	-	1380	-
HCM Lane V/C Ratio	0.013	-	-	0.002	-
HCM Control Delay (s)	10	-	-	7.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	142	112	0	109	0	981	116	106	802	0
Future Volume (vph)	0	0	142	112	0	109	0	981	116	106	802	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1589	1770		1553		3539	1615	1787	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1589	1770		1553		3539	1615	1787	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	148	117	0	114	0	1022	121	110	835	0
RTOR Reduction (vph)	0	0	141	0	0	88	0	0	53	0	0	0
Lane Group Flow (vph)	0	0	7	117	0	26	0	1022	68	110	835	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			2.9	5.5		12.9		26.8	32.3	4.3	35.1	
Effective Green, g (s)			2.9	5.5		12.9		26.8	32.3	4.3	35.1	
Actuated g/C Ratio			0.05	0.10		0.22		0.47	0.56	0.07	0.61	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			80	169		348		1649	907	133	2160	
v/s Ratio Prot				c0.07				c0.29	0.01	c0.06	0.24	
v/s Ratio Perm			0.00			c0.02			0.03			
v/c Ratio			0.09	0.69		0.07		0.62	0.07	0.83	0.39	
Uniform Delay, d1			26.0	25.2		17.6		11.5	5.8	26.2	5.7	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.5	11.6		0.1		0.8	0.0	31.2	0.2	
Delay (s)			26.6	36.8		17.7		12.3	5.8	57.5	5.9	
Level of Service			C	D		B		B	A	E	A	
Approach Delay (s)		26.6			27.4			11.6			11.9	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	57.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	50.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	28	288	137	26	33	218	1114	98	61	1149	87
Future Volume (veh/h)	174	28	288	137	26	33	218	1114	98	61	1149	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1900	1863	1863	1881
Adj Flow Rate, veh/h	185	30	306	146	28	35	232	1185	104	65	1222	93
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	1
Cap, veh/h	219	267	400	179	231	193	266	2475	217	84	1461	651
Arrive On Green	0.12	0.15	0.15	0.10	0.13	0.13	0.15	0.52	0.52	0.05	0.41	0.41
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	4761	418	1774	3539	1577
Grp Volume(v), veh/h	185	30	306	146	28	35	232	844	445	65	1222	93
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1695	1789	1774	1770	1577
Q Serve(g_s), s	9.2	1.3	9.9	7.5	1.2	1.9	12.1	14.6	14.6	3.3	28.5	3.4
Cycle Q Clear(g_c), s	9.2	1.3	9.9	7.5	1.2	1.9	12.1	14.6	14.6	3.3	28.5	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	219	267	400	179	231	193	266	1762	930	84	1461	651
V/C Ratio(X)	0.84	0.11	0.77	0.82	0.12	0.18	0.87	0.48	0.48	0.77	0.84	0.14
Avail Cap(c_a), veh/h	240	597	893	233	597	498	300	1762	930	189	1533	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	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	39.5	34.0	37.7	40.4	35.6	35.9	38.0	14.1	14.1	43.3	24.2	16.8
Incr Delay (d2), s/veh	21.5	0.2	3.1	15.7	0.2	0.4	21.6	0.4	0.8	14.0	4.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.7	3.9	4.4	0.6	0.8	7.3	6.9	7.4	2.0	14.7	1.5
LnGrp Delay(d),s/veh	61.1	34.2	40.8	56.1	35.8	36.3	59.6	14.5	14.9	57.3	28.8	17.0
LnGrp LOS	E	C	D	E	D	D	E	B	B	E	C	B
Approach Vol, veh/h		521			209			1521			1380	
Approach Delay, s/veh		47.6			50.1			21.5			29.4	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	52.7	13.3	17.4	18.2	42.9	15.1	15.6
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	9.8	46.0	12.2	30.0	16.0	39.8	12.2	30.0
Max Q Clear Time (g_c+I1), s	5.3	16.6	9.5	11.9	14.1	30.5	11.2	3.9
Green Ext Time (p_c), s	0.0	27.8	0.1	1.5	0.1	7.5	0.1	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	29.9
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	1097	1055	2
Future Vol, veh/h	0	20	5	1097	1055	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	1131	1088	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	545	1090	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.35	2.2	-	-	-
Pot Cap-1 Maneuver	0	475	648	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	475	648	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	648	-	475	-	-
HCM Lane V/C Ratio	0.008	-	0.043	-	-
HCM Control Delay (s)	10.6	-	12.9	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	370	161	947	356	142	933
Future Volume (veh/h)	370	161	947	356	142	933
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	402	175	1029	387	154	1014
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	616	284	2263	988	199	2283
Arrive On Green	0.18	0.18	0.44	0.44	0.11	0.64
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	402	175	1029	387	154	1014
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	5.6	5.2	7.2	6.2	4.3	7.3
Cycle Q Clear(g_c), s	5.6	5.2	7.2	6.2	4.3	7.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	616	284	2263	988	199	2283
V/C Ratio(X)	0.65	0.62	0.45	0.39	0.77	0.44
Avail Cap(c_a), veh/h	1211	557	2263	988	364	2283
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.5	19.4	9.9	4.8	22.1	4.5
Incr Delay (d2), s/veh	1.2	2.2	0.7	1.2	6.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.5	3.5	4.3	2.4	3.7
LnGrp Delay(d),s/veh	20.7	21.6	10.5	6.0	28.4	5.1
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	577		1416			1168
Approach Delay, s/veh	21.0		9.3			8.2
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.2	27.3				37.5		13.7
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	10.5	18.0				33.0		18.0
Max Q Clear Time (g_c+I1), s	6.3	9.2				9.3		7.6
Green Ext Time (p_c), s	0.1	7.6				17.6		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.0
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	215	7	0	221	0	3
Future Vol, veh/h	215	7	0	221	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	-	-	-	-	-	-
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	234	8	0	240	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	238
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	801
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	801
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	801	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-
HCM Control Delay (s)	9.5	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	218	5	11	218	6	6
Future Vol, veh/h	218	5	11	218	6	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	237	5	12	237	7	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	242	0	501	240
Stage 1	-	-	-	-	240	-
Stage 2	-	-	-	-	261	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1324	-	530	799
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	783	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1324	-	525	799
Mov Cap-2 Maneuver	-	-	-	-	599	-
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	776	-

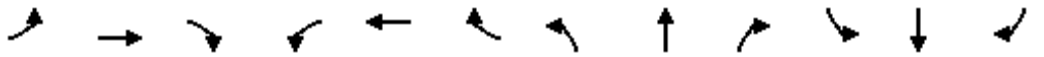
Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	685	-	-	1324	-
HCM Lane V/C Ratio	0.019	-	-	0.009	-
HCM Control Delay (s)	10.4	-	-	7.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	69	113	0	61	0	699	89	91	716	0
Future Volume (vph)	0	0	69	113	0	61	0	699	89	91	716	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.97	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1585	1805		1455		3505	1599	1752	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1585	1805		1455		3505	1599	1752	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	72	118	0	64	0	728	93	95	746	0
RTOR Reduction (vph)	0	0	69	0	0	48	0	0	45	0	0	0
Lane Group Flow (vph)	0	0	3	118	0	16	0	728	48	95	746	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			2.0	5.1		11.6		19.5	24.6	2.6	26.1	
Effective Green, g (s)			2.0	5.1		11.6		19.5	24.6	2.6	26.1	
Actuated g/C Ratio			0.04	0.11		0.25		0.41	0.52	0.06	0.55	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			67	195		357		1448	833	96	1956	
v/s Ratio Prot				c0.07				c0.21	0.01	c0.05	0.21	
v/s Ratio Perm			0.00			c0.01			0.02			
v/c Ratio			0.05	0.61		0.04		0.50	0.06	0.99	0.38	
Uniform Delay, d1			21.7	20.1		13.6		10.3	5.6	22.3	6.0	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.3	5.2		0.1		0.4	0.0	87.4	0.2	
Delay (s)			22.0	25.3		13.6		10.6	5.6	109.7	6.1	
Level of Service			C	C		B		B	A	F	A	
Approach Delay (s)		22.0			21.2			10.1			17.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	47.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	27	204	174	28	23	198	825	157	64	943	112
Future Volume (veh/h)	131	27	204	174	28	23	198	825	157	64	943	112
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1866	1900	1845	1863	1881
Adj Flow Rate, veh/h	136	28	212	181	29	24	206	859	164	67	982	117
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	2	3	2	1
Cap, veh/h	170	207	315	219	247	226	245	2126	404	86	1425	635
Arrive On Green	0.10	0.11	0.11	0.12	0.14	0.14	0.14	0.49	0.49	0.05	0.40	0.40
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	4300	816	1757	3539	1577
Grp Volume(v), veh/h	136	28	212	181	29	24	206	677	346	67	982	117
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1698	1721	1757	1770	1577
Q Serve(g_s), s	5.9	1.1	5.7	7.8	1.1	1.0	9.0	9.8	9.9	2.9	17.8	3.7
Cycle Q Clear(g_c), s	5.9	1.1	5.7	7.8	1.1	1.0	9.0	9.8	9.9	2.9	17.8	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	170	207	315	219	247	226	245	1679	851	86	1425	635
V/C Ratio(X)	0.80	0.14	0.67	0.83	0.12	0.11	0.84	0.40	0.41	0.78	0.69	0.18
Avail Cap(c_a), veh/h	231	705	1075	258	704	646	291	1679	851	217	1530	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	34.3	31.0	33.1	33.2	29.2	29.2	32.5	12.4	12.4	36.6	19.2	15.0
Incr Delay (d2), s/veh	13.2	0.3	2.5	17.1	0.2	0.2	16.9	0.3	0.7	14.0	1.7	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	3.5	0.6	2.3	4.8	0.6	0.5	5.4	4.6	4.8	1.7	8.9	1.7
LnGrp Delay(d),s/veh	47.5	31.3	35.6	50.3	29.4	29.4	49.5	12.7	13.1	50.6	20.9	15.3
LnGrp LOS	D	C	D	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		376			234			1229			1166	
Approach Delay, s/veh		39.6			45.6			19.0			22.0	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	43.4	13.7	12.8	15.0	36.3	11.6	14.9
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	9.6	37.0	11.4	30.0	13.0	33.6	10.3	31.1
Max Q Clear Time (g_c+I1), s	4.9	11.9	9.8	7.7	11.0	19.8	7.9	3.1
Green Ext Time (p_c), s	0.0	22.3	0.1	1.2	0.1	11.5	0.1	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	7	788	898	0
Future Vol, veh/h	0	0	7	788	898	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	7	812	926	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	463	926	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	551	746	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	551	746	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	746	-	-	-	-
HCM Lane V/C Ratio	0.01	-	-	-	-
HCM Control Delay (s)	9.9	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	439	229	562	465	221	677
Future Volume (veh/h)	439	229	562	465	221	677
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	477	249	611	505	240	736
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	749	345	1860	924	293	2176
Arrive On Green	0.22	0.22	0.37	0.37	0.17	0.61
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	477	249	611	505	240	736
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	6.8	7.8	4.6	10.5	7.0	5.4
Cycle Q Clear(g_c), s	6.8	7.8	4.6	10.5	7.0	5.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	749	345	1860	924	293	2176
V/C Ratio(X)	0.64	0.72	0.33	0.55	0.82	0.34
Avail Cap(c_a), veh/h	1154	531	1860	924	347	2176
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.1	19.5	12.3	6.8	21.6	5.0
Incr Delay (d2), s/veh	0.9	2.9	0.5	2.3	12.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.7	2.2	7.5	4.4	2.7
LnGrp Delay(d),s/veh	20.0	22.4	12.7	9.2	34.1	5.5
LnGrp LOS	B	C	B	A	C	A
Approach Vol, veh/h	726		1116			976
Approach Delay, s/veh	20.8		11.1			12.5
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.4	24.1				37.5		16.2
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	10.5	18.0				33.0		18.0
Max Q Clear Time (g_c+I1), s	9.8	12.5				7.4		9.8
Green Ext Time (p_c), s	0.1	4.3				13.4		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	166	15	0	174	0	6
Future Vol, veh/h	166	15	0	174	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	180	16	0	189	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	188
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	854
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	854
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	854	-	-	-
HCM Lane V/C Ratio	0.008	-	-	-
HCM Control Delay (s)	9.2	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	172	5	17	168	11	11
Future Vol, veh/h	172	5	17	168	11	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	187	5	18	183	12	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	192	0	410	190
Stage 1	-	-	-	-	190	-
Stage 2	-	-	-	-	220	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1381	-	598	852
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	817	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1381	-	590	852
Mov Cap-2 Maneuver	-	-	-	-	645	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	806	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	734	-	-	1381	-
HCM Lane V/C Ratio	0.033	-	-	0.013	-
HCM Control Delay (s)	10.1	-	-	7.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Cumulative Conditions – Short Term Baseline

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	127	236	142	136	125	228	394	96	40	320	114
Future Volume (veh/h)	177	127	236	142	136	125	228	394	96	40	320	114
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1727	1727	1827	1843	1900	1827	1863	1863	1900	1819	1900
Adj Flow Rate, veh/h	203	146	271	163	156	144	262	453	110	46	368	131
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	10	10	4	5	5	4	2	2	0	5	5
Cap, veh/h	394	387	321	373	188	174	295	626	523	59	478	167
Arrive On Green	0.22	0.22	0.22	0.21	0.21	0.21	0.17	0.34	0.34	0.03	0.19	0.19
Sat Flow, veh/h	1757	1727	1434	1740	878	811	1740	1863	1557	1810	2476	865
Grp Volume(v), veh/h	203	146	271	163	0	300	262	453	110	46	255	244
Grp Sat Flow(s),veh/h/ln	1757	1727	1434	1740	0	1689	1740	1863	1557	1810	1728	1613
Q Serve(g_s), s	9.2	6.5	16.4	7.4	0.0	15.4	13.3	19.3	4.6	2.3	12.6	13.0
Cycle Q Clear(g_c), s	9.2	6.5	16.4	7.4	0.0	15.4	13.3	19.3	4.6	2.3	12.6	13.0
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		0.54
Lane Grp Cap(c), veh/h	394	387	321	373	0	362	295	626	523	59	334	312
V/C Ratio(X)	0.52	0.38	0.84	0.44	0.00	0.83	0.89	0.72	0.21	0.78	0.76	0.78
Avail Cap(c_a), veh/h	543	534	443	538	0	522	305	689	576	60	383	358
HCM Platoon Ratio	1.00	1.00	1.00	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	30.8	29.8	33.6	30.8	0.0	34.0	36.8	26.4	21.5	43.5	34.6	34.7
Incr Delay (d2), s/veh	0.4	0.2	7.8	0.3	0.0	4.9	25.1	2.7	0.1	43.8	6.3	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	3.1	7.2	3.6	0.0	7.7	8.5	10.4	2.0	1.9	6.6	6.5
LnGrp Delay(d),s/veh	31.2	30.0	41.4	31.1	0.0	38.9	61.8	29.1	21.6	87.3	40.9	42.8
LnGrp LOS	C	C	D	C		D	E	C	C	F	D	D
Approach Vol, veh/h		620			463			825			545	
Approach Delay, s/veh		35.4			36.2			38.5			45.7	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.9	35.9		24.3	19.9	23.0		23.4
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	3.0	33.5		28.0	15.9	20.1		28.0
Max Q Clear Time (g_c+I1), s	4.3	21.3		18.4	15.3	15.0		17.4
Green Ext Time (p_c), s	0.0	3.5		1.1	0.0	2.1		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	38.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	45	11	50	7	490	2	407	55	428	385	1
Future Volume (veh/h)	6	45	11	50	7	490	2	407	55	428	385	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1813	1900	1900	1900	1827	1900	1827	1827	1827	1793	1900
Adj Flow Rate, veh/h	6	48	12	54	8	527	2	438	59	460	414	1
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	4	0	4	4	4	6	6
Cap, veh/h	67	339	78	409	55	844	3	531	445	504	1035	3
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.00	0.29	0.29	0.29	0.58	0.58
Sat Flow, veh/h	53	1334	308	1244	215	1547	1810	1827	1532	1740	1787	4
Grp Volume(v), veh/h	66	0	0	62	0	527	2	438	59	460	0	415
Grp Sat Flow(s),veh/h/ln	1696	0	0	1459	0	1547	1810	1827	1532	1740	0	1792
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	17.1	0.1	16.3	2.1	18.6	0.0	9.2
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.9	0.0	17.1	0.1	16.3	2.1	18.6	0.0	9.2
Prop In Lane	0.09		0.18	0.87		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	485	0	0	464	0	844	3	531	445	504	0	1038
V/C Ratio(X)	0.14	0.00	0.00	0.13	0.00	0.62	0.68	0.82	0.13	0.91	0.00	0.40
Avail Cap(c_a), veh/h	485	0	0	464	0	844	137	615	516	598	0	1084
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	0.0	20.9	0.0	11.5	36.3	24.1	19.0	24.9	0.0	8.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	1.4	69.3	7.9	0.1	16.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	1.0	0.0	7.5	0.1	9.3	0.9	11.1	0.0	4.6
LnGrp Delay(d),s/veh	21.1	0.0	0.0	21.1	0.0	12.9	105.6	32.0	19.2	41.0	0.0	8.6
LnGrp LOS	C			C		B	F	C	B	D		A
Approach Vol, veh/h		66			589			499			875	
Approach Delay, s/veh		21.1			13.8			30.8			25.7	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.1	25.1		22.5	4.1	46.1		22.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	25.0	24.5		18.5	5.5	44.0		18.5
Max Q Clear Time (g_c+I1), s	20.6	18.3		4.1	2.1	11.2		19.1
Green Ext Time (p_c), s	0.5	2.9		2.5	0.0	6.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	32	121	50	52	26	166	512	62	18	219	362
Future Volume (veh/h)	58	32	121	50	52	26	166	512	62	18	219	362
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1841	1845	1863	1804	1900	1863	1835	1900	1900	1810	1810
Adj Flow Rate, veh/h	64	35	133	55	57	29	182	563	68	20	241	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	3	2	8	8	2	4	4	0	5	5
Cap, veh/h	159	87	217	210	134	68	236	1134	137	45	459	390
Arrive On Green	0.14	0.14	0.14	0.12	0.12	0.12	0.13	0.36	0.36	0.02	0.25	0.00
Sat Flow, veh/h	1153	630	1568	1774	1129	574	1774	3133	377	1810	1810	1538
Grp Volume(v), veh/h	99	0	133	55	0	86	182	313	318	20	241	0
Grp Sat Flow(s),veh/h/ln	1783	0	1568	1774	0	1703	1774	1743	1768	1810	1810	1538
Q Serve(g_s), s	2.0	0.0	3.2	1.1	0.0	1.9	4.0	5.6	5.6	0.4	4.6	0.0
Cycle Q Clear(g_c), s	2.0	0.0	3.2	1.1	0.0	1.9	4.0	5.6	5.6	0.4	4.6	0.0
Prop In Lane	0.65		1.00	1.00		0.34	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	247	0	217	210	0	202	236	631	640	45	459	390
V/C Ratio(X)	0.40	0.00	0.61	0.26	0.00	0.43	0.77	0.50	0.50	0.44	0.52	0.00
Avail Cap(c_a), veh/h	1133	0	997	814	0	781	862	1533	1555	293	1006	855
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	15.8	0.0	16.3	16.1	0.0	16.4	16.8	10.0	10.0	19.3	12.9	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.0	0.2	0.0	0.5	2.0	0.3	0.3	2.5	0.5	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	1.0	0.0	1.5	0.6	0.0	0.9	2.1	2.7	2.8	0.2	2.3	0.0
LnGrp Delay(d),s/veh	16.2	0.0	17.3	16.3	0.0	16.9	18.8	10.3	10.3	21.8	13.4	0.0
LnGrp LOS	B		B	B		B	B	B	B	C	B	
Approach Vol, veh/h		232			141			813			261	
Approach Delay, s/veh		16.8			16.7			12.2			14.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.0	18.2		9.0	8.3	13.9		8.9
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	6.5	35.3		25.5	19.5	22.3		18.4
Max Q Clear Time (g_c+I1), s	2.4	7.6		5.2	6.0	6.6		3.9
Green Ext Time (p_c), s	0.0	4.1		0.5	0.2	3.6		0.3

Intersection Summary		
HCM 2010 Ctrl Delay		13.7
HCM 2010 LOS		B

Intersection	
Int Delay, s/veh	26.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	92	393	347	88	80	309
Future Vol, veh/h	92	393	347	88	80	309
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	91	91	91	91	91	91
Heavy Vehicles, %	2	4	3	6	10	2
Mvmt Flow	101	432	381	97	88	340

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	896	381	0	0	381	0
Stage 1	381	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Critical Hdwy	6.42	6.24	-	-	4.2	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	-	-	2.29	-
Pot Cap-1 Maneuver	311	662	-	-	1135	-
Stage 1	691	-	-	-	-	-
Stage 2	600	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	281	662	-	-	1135	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	70.2	0	1.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	527	1135	-
HCM Lane V/C Ratio	-	-	1.011	0.077	-
HCM Control Delay (s)	-	-	70.2	8.4	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	14.5	0.3	-

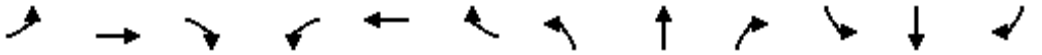
Intersection	
Int Delay, s/veh	3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	168	34	68	115	38	72
Future Vol, veh/h	168	34	68	115	38	72
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	88	88	88	88	88	88
Heavy Vehicles, %	4	9	7	3	18	6
Mvmt Flow	191	39	77	131	43	82

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	230	0	495	210
Stage 1	-	-	-	-	210	-
Stage 2	-	-	-	-	285	-
Critical Hdwy	-	-	4.17	-	6.58	6.26
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.263	-	3.662	3.354
Pot Cap-1 Maneuver	-	-	1309	-	506	820
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	728	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1309	-	474	820
Mov Cap-2 Maneuver	-	-	-	-	474	-
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	682	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	655	-	-	1309	-
HCM Lane V/C Ratio	0.191	-	-	0.059	-
HCM Control Delay (s)	11.8	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-



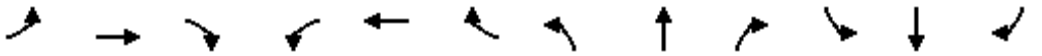
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	201	103	243	187	21	154	435	207	28	947	173
Future Volume (veh/h)	108	201	103	243	187	21	154	435	207	28	947	173
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1743	1863	1743	1810	1727	1792	1810	1827	1863	1881
Adj Flow Rate, veh/h	115	214	110	259	199	22	164	463	220	30	1007	184
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	9	2	9	5	10	6	5	4	2	1
Cap, veh/h	144	341	282	339	356	310	197	1472	816	43	1192	673
Arrive On Green	0.08	0.19	0.19	0.10	0.20	0.20	0.12	0.43	0.43	0.02	0.34	0.34
Sat Flow, veh/h	1707	1792	1482	3442	1743	1518	1645	3406	1538	1740	3539	1599
Grp Volume(v), veh/h	115	214	110	259	199	22	164	463	220	30	1007	184
Grp Sat Flow(s),veh/h/ln	1707	1792	1482	1721	1743	1518	1645	1703	1538	1740	1770	1599
Q Serve(g_s), s	5.2	8.6	5.1	5.8	8.1	0.9	7.7	7.0	6.1	1.3	20.7	5.9
Cycle Q Clear(g_c), s	5.2	8.6	5.1	5.8	8.1	0.9	7.7	7.0	6.1	1.3	20.7	5.9
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	144	341	282	339	356	310	197	1472	816	43	1192	673
V/C Ratio(X)	0.80	0.63	0.39	0.76	0.56	0.07	0.83	0.31	0.27	0.70	0.84	0.27
Avail Cap(c_a), veh/h	163	548	453	342	539	470	220	1472	816	131	1248	699
HCM Platoon Ratio	1.00	1.00	1.00	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	35.3	29.2	27.8	34.5	28.1	25.2	33.8	14.6	10.1	38.0	24.1	14.9
Incr Delay (d2), s/veh	21.7	4.0	1.9	9.7	2.9	0.2	21.1	0.3	0.4	19.1	6.0	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	3.3	4.7	2.2	3.2	4.2	0.4	4.6	3.3	2.6	0.9	11.1	2.7
LnGrp Delay(d),s/veh	57.0	33.3	29.7	44.3	31.0	25.4	54.9	14.9	10.5	57.1	30.1	15.3
LnGrp LOS	E	C	C	D	C	C	D	B	B	E	C	B
Approach Vol, veh/h		439			480			847			1221	
Approach Delay, s/veh		38.6			37.9			21.5			28.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	39.4	12.2	20.4	13.9	31.9	11.1	21.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.9	32.3	7.8	24.0	10.5	27.7	7.5	24.3
Max Q Clear Time (g_c+I1), s	3.3	9.0	7.8	10.6	9.7	22.7	7.2	10.1
Green Ext Time (p_c), s	0.0	19.3	0.0	4.3	0.0	3.7	0.0	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

HCM Signalized Intersection Capacity Analysis
7: Sierra College Blvd & Brace Rd

01/21/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	104	126	0	95	0	716	98	141	1152	1
Future Volume (vph)	0	0	104	126	0	95	0	716	98	141	1152	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0		4.0		5.5		4.0	5.5	5.5
Lane Util. Factor			1.00	1.00		1.00		0.95		1.00	0.95	1.00
Frpb, ped/bikes			0.98	1.00		1.00		1.00		1.00	1.00	1.00
Flpb, ped/bikes			1.00	1.00		1.00		1.00		1.00	1.00	1.00
Frt			0.86	1.00		0.85		0.98		1.00	1.00	0.85
Flt Protected			1.00	0.95		1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)			1457	1766		1495		3360		1736	3539	1615
Flt Permitted			1.00	0.95		1.00		1.00		0.95	1.00	1.00
Satd. Flow (perm)			1457	1766		1495		3360		1736	3539	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	111	134	0	101	0	762	104	150	1226	1
RTOR Reduction (vph)	0	0	93	0	0	85	0	15	0	0	0	0
Lane Group Flow (vph)	0	0	18	134	0	16	0	851	0	150	1226	1
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Perm		Perm		NA		Prot	NA	Perm
Protected Phases								6		5	2	
Permitted Phases			4	8		8						2
Actuated Green, G (s)			8.3	8.3		8.3		24.6		5.8	34.4	34.4
Effective Green, g (s)			8.3	8.3		8.3		24.6		5.8	34.4	34.4
Actuated g/C Ratio			0.16	0.16		0.16		0.47		0.11	0.66	0.66
Clearance Time (s)			4.0	4.0		4.0		5.5		4.0	5.5	5.5
Vehicle Extension (s)			3.0	4.0		4.0		4.0		0.5	4.0	4.0
Lane Grp Cap (vph)			231	280		237		1583		192	2332	1064
v/s Ratio Prot								0.25		c0.09	c0.35	
v/s Ratio Perm			0.01	c0.08		0.01						0.00
v/c Ratio			0.08	0.48		0.07		0.54		0.78	0.53	0.00
Uniform Delay, d1			18.7	20.0		18.7		9.8		22.6	4.6	3.0
Progression Factor			1.00	1.00		1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2			0.1	1.8		0.2		0.5		17.1	0.3	0.0
Delay (s)			18.8	21.7		18.8		10.2		39.7	4.9	3.0
Level of Service			B	C		B		B		D	A	A
Approach Delay (s)		18.8			20.5			10.2			8.7	
Approach LOS		B			C			B			A	

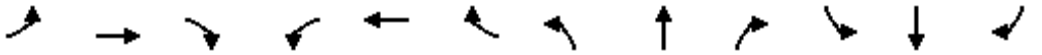
Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	52.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	23	241	149	41	28	265	697	113	89	1195	93
Future Volume (veh/h)	106	23	241	149	41	28	265	697	113	89	1195	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1776	1881	1743	1845	1863
Adj Flow Rate, veh/h	110	24	251	155	43	29	276	726	118	93	1245	97
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	1	9	3	2
Cap, veh/h	135	229	322	182	276	241	305	1771	839	116	1459	650
Arrive On Green	0.08	0.13	0.13	0.11	0.16	0.16	0.18	0.52	0.52	0.07	0.42	0.42
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	3374	1597	1660	3505	1562
Grp Volume(v), veh/h	110	24	251	155	43	29	276	726	118	93	1245	97
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1687	1597	1660	1752	1562
Q Serve(g_s), s	6.9	1.3	10.3	9.6	2.2	1.7	16.5	13.6	4.0	5.8	33.5	4.0
Cycle Q Clear(g_c), s	6.9	1.3	10.3	9.6	2.2	1.7	16.5	13.6	4.0	5.8	33.5	4.0
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	135	229	322	182	276	241	305	1771	839	116	1459	650
V/C Ratio(X)	0.81	0.10	0.78	0.85	0.16	0.12	0.90	0.41	0.14	0.80	0.85	0.15
Avail Cap(c_a), veh/h	189	501	705	192	500	437	331	1771	839	221	1533	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	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	47.1	39.9	43.8	45.5	37.7	37.5	41.9	15.0	12.7	47.8	27.6	19.0
Incr Delay (d2), s/veh	16.8	0.2	4.1	27.8	0.3	0.2	25.7	0.3	0.2	11.7	5.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.6	3.7	5.8	1.1	0.7	10.0	6.3	1.8	3.0	17.2	1.8
LnGrp Delay(d),s/veh	63.9	40.1	48.0	73.4	38.0	37.7	67.6	15.3	12.9	59.5	32.9	19.2
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	C	B
Approach Vol, veh/h		385			227			1120			1435	
Approach Delay, s/veh		52.0			62.1			28.0			33.7	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	59.7	15.5	17.7	22.7	48.4	12.6	20.7
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	13.9	51.9	12.2	30.0	20.2	45.6	12.0	30.2
Max Q Clear Time (g_c+I1), s	7.8	15.6	11.6	12.3	18.5	35.5	8.9	4.2
Green Ext Time (p_c), s	0.1	31.6	0.0	1.4	0.2	7.9	0.1	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	89	632	71	268	108	829	197	0	1534	63
Future Volume (veh/h)	20	0	89	632	71	268	108	829	197	0	1534	63
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1759	1845	1810	1776	1827	1792	1681	0	1696	1900
Adj Flow Rate, veh/h	22	0	98	695	241	186	119	911	216	0	1686	69
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	8	3	2	7	4	6	13	0	12	0
Cap, veh/h	39	0	0	755	274	229	464	3389	990	0	1733	604
Arrive On Green	0.02	0.00	0.00	0.21	0.15	0.15	0.53	1.00	1.00	0.00	0.37	0.37
Sat Flow, veh/h	1810	22		3514	1810	1509	1740	4893	1429	0	4784	1615
Grp Volume(v), veh/h	22	62.7		695	241	186	119	911	216	0	1686	69
Grp Sat Flow(s),veh/h/ln	1810	E		1757	1810	1509	1740	1631	1429	0	1544	1615
Q Serve(g_s), s	1.4			23.2	15.6	14.3	4.4	0.0	0.0	0.0	43.0	3.4
Cycle Q Clear(g_c), s	1.4			23.2	15.6	14.3	4.4	0.0	0.0	0.0	43.0	3.4
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	39			755	274	229	464	3389	990	0	1733	604
V/C Ratio(X)	0.56			0.92	0.88	0.81	0.26	0.27	0.22	0.00	0.97	0.11
Avail Cap(c_a), veh/h	92			1467	588	491	464	3389	990	0	1733	604
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	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	0.54	0.54
Uniform Delay (d), s/veh	58.1			46.1	49.8	49.3	21.6	0.0	0.0	0.0	37.0	24.5
Incr Delay (d2), s/veh	4.6			2.1	3.6	2.6	0.1	0.2	0.5	0.0	10.7	0.2
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8			11.5	8.1	6.2	2.1	0.1	0.1	0.0	20.0	1.5
LnGrp Delay(d),s/veh	62.7			48.2	53.4	51.9	21.7	0.2	0.5	0.0	47.6	24.8
LnGrp LOS	E			D	D	D	C	A	A		D	C
Approach Vol, veh/h					1122			1246			1755	
Approach Delay, s/veh					49.9			2.3			46.7	
Approach LOS					D			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		89.3	30.7		38.2	51.1	7.2	23.5
Change Period (Y+Rc), s		6.2	4.9		6.2	* 6.2	4.6	5.3
Max Green Setting (Gmax), s		58.8	50.1		9.2	* 45	6.1	39.0
Max Q Clear Time (g_c+I1), s		2.0	25.2		6.4	45.0	3.4	17.6
Green Ext Time (p_c), s		2.8	0.5		1.1	0.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	34.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	374	104	203	46	0	111	0	1016	33	195	1246	296
Future Volume (veh/h)	374	104	203	46	0	111	0	1016	33	195	1246	296
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1845	1776	1845	0	1863	0	1667	1792	1863	1863	1743
Adj Flow Rate, veh/h	430	120	233	53	0	128	0	1168	38	224	1432	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	7	3	7	3	0	2	0	14	6	2	2	9
Cap, veh/h	846	600	258	85	0	0	0	1317	350	1276	2308	966
Arrive On Green	0.26	0.17	0.17	0.05	0.00	0.00	0.00	0.46	0.46	0.74	1.00	0.00
Sat Flow, veh/h	3281	3505	1509	1757	53		0	5967	1524	3442	3539	1482
Grp Volume(v), veh/h	430	120	233	53	58.8		0	1168	38	224	1432	0
Grp Sat Flow(s),veh/h/ln	1640	1752	1509	1757	E		0	1433	1524	1721	1770	1482
Q Serve(g_s), s	13.4	3.5	18.2	3.6			0.0	22.3	1.4	2.3	0.0	0.0
Cycle Q Clear(g_c), s	13.4	3.5	18.2	3.6			0.0	22.3	1.4	2.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	846	600	258	85			0	1317	350	1276	2308	966
V/C Ratio(X)	0.51	0.20	0.90	0.62			0.00	0.89	0.11	0.18	0.62	0.00
Avail Cap(c_a), veh/h	846	1227	528	108			0	1787	475	1276	2308	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00			0.00	0.96	0.96	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.0	42.7	48.7	56.0			0.0	31.0	17.1	10.1	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.1	4.6	2.8			0.0	8.8	0.6	0.0	1.3	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
%ile BackOfQ(50%),veh/ln	6.1	1.7	7.9	1.8			0.0	9.6	0.6	1.1	0.4	0.0
LnGrp Delay(d),s/veh	38.4	42.7	53.4	58.8			0.0	39.8	17.7	10.1	1.3	0.0
LnGrp LOS	D	D	D	E				D	B	B	A	
Approach Vol, veh/h		783						1206			1656	
Approach Delay, s/veh		43.5						39.1			2.5	
Approach LOS		D						D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	50.7	33.8	10.4	25.1		84.5	35.5	
Change Period (Y+Rc), s	6.2	* 6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	13.2	* 37	7.4	42.0		55.2	23.3	
Max Q Clear Time (g_c+I1), s	4.3	24.3	5.6	20.2		2.0	15.4	
Green Ext Time (p_c), s	3.5	3.3	0.0	0.4		5.2	0.8	

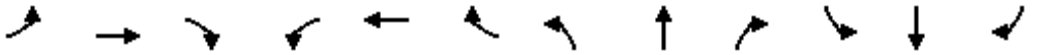
Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	5	120	0	176	7	866	60	0	1450	13
Future Volume (veh/h)	7	0	5	120	0	176	7	866	60	0	1450	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1900	1532	1863	1778	1900	0	1810	1863
Adj Flow Rate, veh/h	8	0	5	148	0	217	8	1069	74	0	1790	14
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	1
Peak Hour Factor	0.92	0.92	0.92	0.81	0.92	0.81	0.92	0.81	0.81	0.81	0.81	0.92
Percent Heavy Veh, %	2	2	2	2	2	24	2	7	7	0	5	2
Cap, veh/h	26	0	23	271	0	195	17	4256	293	0	2323	1070
Arrive On Green	0.01	0.00	0.01	0.15	0.00	0.15	0.01	0.72	0.72	0.00	1.00	1.00
Sat Flow, veh/h	1774	0	1583	1810	0	1302	1774	5887	405	0	3529	1583
Grp Volume(v), veh/h	8	0	5	148	0	217	8	832	311	0	1790	14
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1810	0	1302	1774	1529	1706	0	1719	1583
Q Serve(g_s), s	0.5	0.0	0.4	9.1	0.0	18.0	0.5	7.4	7.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	0.4	9.1	0.0	18.0	0.5	7.4	7.4	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	0.00		1.00
Lane Grp Cap(c), veh/h	26	0	23	271	0	195	17	3316	1233	0	2323	1070
V/C Ratio(X)	0.31	0.00	0.22	0.55	0.00	1.11	0.46	0.25	0.25	0.00	0.77	0.01
Avail Cap(c_a), veh/h	266	0	237	271	0	195	74	3316	1233	0	2323	1070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.96	0.96	0.96	0.00	0.77	0.77
Uniform Delay (d), s/veh	58.5	0.0	58.4	47.2	0.0	51.0	59.1	5.6	5.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	6.5	0.0	4.5	2.3	0.0	97.2	17.2	0.2	0.5	0.0	2.0	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	0.3	0.0	0.2	4.7	0.0	11.7	0.3	3.1	3.6	0.0	0.6	0.0
LnGrp Delay(d),s/veh	65.0	0.0	63.0	49.5	0.0	148.2	76.3	5.8	6.1	0.0	2.0	0.0
LnGrp LOS	E		E	D		F	E	A	A		A	A
Approach Vol, veh/h		13			365			1151			1804	
Approach Delay, s/veh		64.2			108.2			6.4			1.9	
Approach LOS		E			F			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		91.2		6.3	5.7	85.6		22.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		70.5		18.0	5.0	61.0		18.0
Max Q Clear Time (g_c+I1), s		9.4		2.5	2.5	2.0		20.0
Green Ext Time (p_c), s		46.9		0.0	0.0	45.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.3
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	1	38	1	8	0	923	25	40	1532	3
Future Volume (veh/h)	2	0	1	38	1	8	0	923	25	40	1532	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1267	1900	1900	1597	1900	1520	1900	1792	1743	1387	1827	1429
Adj Flow Rate, veh/h	2	0	1	48	1	10	0	1154	31	50	1915	4
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	50	0	0	19	0	25	0	6	9	37	4	33
Cap, veh/h	3	0	2	115	72	49	2	3399	1029	57	2736	956
Arrive On Green	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.69	0.69	0.04	0.79	0.79
Sat Flow, veh/h	1206	0	1615	2950	1900	1292	1810	4893	1481	1321	3471	1214
Grp Volume(v), veh/h	2	0	1	48	1	10	0	1154	31	50	1915	4
Grp Sat Flow(s),veh/h/ln	1206	0	1615	1475	1900	1292	1810	1631	1481	1321	1736	1214
Q Serve(g_s), s	0.1	0.0	0.1	1.4	0.0	0.7	0.0	8.4	0.6	3.4	23.3	0.1
Cycle Q Clear(g_c), s	0.1	0.0	0.1	1.4	0.0	0.7	0.0	8.4	0.6	3.4	23.3	0.1
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	3	0	2	115	72	49	2	3399	1029	57	2736	956
V/C Ratio(X)	0.61	0.00	0.45	0.42	0.01	0.21	0.00	0.34	0.03	0.88	0.70	0.00
Avail Cap(c_a), veh/h	68	0	616	198	745	507	101	3714	1124	185	2926	1023
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	0.0	44.5	41.9	41.3	41.6	0.0	5.4	4.2	42.5	4.5	2.0
Incr Delay (d2), s/veh	113.6	0.0	118.0	2.4	0.1	2.5	0.0	0.1	0.0	31.7	0.7	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	0.0	0.1	0.6	0.0	0.3	0.0	3.8	0.2	1.7	11.2	0.0
LnGrp Delay(d),s/veh	158.0	0.0	162.5	44.3	41.4	44.1	0.0	5.5	4.3	74.2	5.2	2.0
LnGrp LOS	F		F	D	D	D		A	A	E	A	A
Approach Vol, veh/h		3			59			1185			1969	
Approach Delay, s/veh		159.5			44.2			5.5			7.0	
Approach LOS		F			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	67.8	8.0	5.1	0.0	76.1	4.7	8.4
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	12.5	67.7	6.0	34.0	5.0	75.2	5.0	35.0
Max Q Clear Time (g_c+I1), s	5.4	10.4	3.4	2.1	0.0	25.3	2.1	2.7
Green Ext Time (p_c), s	0.0	51.0	0.0	0.0	0.0	45.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	8	73	896	1391	304
Future Volume (veh/h)	22	8	73	896	1391	304
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1900	1900	1810	1825	1900
Adj Flow Rate, veh/h	29	11	96	1179	1830	400
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	5	0	0	5	5	5
Cap, veh/h	135	65	124	2719	2662	571
Arrive On Green	0.04	0.04	0.07	0.79	0.65	0.65
Sat Flow, veh/h	3343	1615	1810	3529	4274	881
Grp Volume(v), veh/h	29	11	96	1179	1472	758
Grp Sat Flow(s),veh/h/ln	1672	1615	1810	1719	1661	1669
Q Serve(g_s), s	0.5	0.4	3.2	6.6	16.9	17.7
Cycle Q Clear(g_c), s	0.5	0.4	3.2	6.6	16.9	17.7
Prop In Lane	1.00	1.00	1.00			0.53
Lane Grp Cap(c), veh/h	135	65	124	2719	2152	1081
V/C Ratio(X)	0.21	0.17	0.77	0.43	0.68	0.70
Avail Cap(c_a), veh/h	1079	521	195	2861	2160	1085
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.1	28.0	27.7	2.0	6.7	6.9
Incr Delay (d2), s/veh	0.8	1.2	9.8	0.1	1.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	1.9	3.0	7.9	8.6
LnGrp Delay(d),s/veh	28.9	29.2	37.5	2.1	7.7	9.0
LnGrp LOS	C	C	D	A	A	A
Approach Vol, veh/h	40			1275	2230	
Approach Delay, s/veh	29.0			4.8	8.1	
Approach LOS	C			A	A	

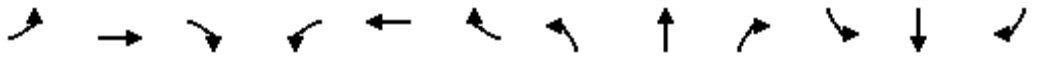
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		6.9	8.6	44.9				53.5
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		19.5	6.5	39.3				50.3
Max Q Clear Time (g_c+I1), s		2.5	5.2	19.7				8.6
Green Ext Time (p_c), s		0.1	0.0	19.0				39.2

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	306	296	125	345	164	430	690	90	147	828	244
Future Volume (veh/h)	128	306	296	125	345	164	430	690	90	147	828	244
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1863	1845	1900	1863	1900	1881	1780	1900	1696	1827	1827
Adj Flow Rate, veh/h	154	369	357	151	416	198	518	831	108	177	998	294
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	6	2	3	0	2	2	1	7	7	12	4	4
Cap, veh/h	185	1104	484	97	596	280	262	936	122	191	1768	539
Arrive On Green	0.11	0.31	0.31	0.05	0.26	0.26	0.08	0.31	0.31	0.12	0.35	0.35
Sat Flow, veh/h	1707	3539	1553	1810	2318	1090	3476	3006	391	1616	4988	1522
Grp Volume(v), veh/h	154	369	357	151	316	298	518	467	472	177	998	294
Grp Sat Flow(s),veh/h/ln	1707	1770	1553	1810	1770	1639	1738	1691	1707	1616	1663	1522
Q Serve(g_s), s	8.2	7.4	19.1	5.0	15.0	15.3	7.0	24.4	24.4	10.1	15.0	14.4
Cycle Q Clear(g_c), s	8.2	7.4	19.1	5.0	15.0	15.3	7.0	24.4	24.4	10.1	15.0	14.4
Prop In Lane	1.00		1.00	1.00		0.67	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	185	1104	484	97	455	421	262	526	531	191	1768	539
V/C Ratio(X)	0.83	0.33	0.74	1.55	0.70	0.71	1.98	0.89	0.89	0.93	0.56	0.55
Avail Cap(c_a), veh/h	221	1181	518	97	457	423	262	528	533	191	1772	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)	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	40.6	24.6	28.6	43.9	31.2	31.3	42.9	30.4	30.4	40.5	24.2	24.0
Incr Delay (d2), s/veh	19.9	0.6	8.4	291.8	5.0	5.8	453.5	18.7	18.6	44.3	0.5	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	4.9	3.7	9.3	10.4	7.9	7.6	19.8	14.2	14.3	6.8	6.9	6.3
LnGrp Delay(d),s/veh	60.5	25.2	37.0	335.8	36.2	37.1	496.4	49.2	49.1	84.9	24.7	25.5
LnGrp LOS	E	C	D	F	D	D	F	D	D	F	C	C
Approach Vol, veh/h		880			765			1457			1469	
Approach Delay, s/veh		36.2			95.7			208.1			32.1	
Approach LOS		D			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	33.9	9.0	35.0	11.0	37.9	14.1	29.9
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	11.0	29.0	5.0	31.0	7.0	33.0	12.0	24.0
Max Q Clear Time (g_c+I1), s	12.1	26.4	7.0	21.1	9.0	17.0	10.2	17.3
Green Ext Time (p_c), s	0.0	2.5	0.0	7.6	0.0	14.7	0.1	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	99.6
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	21	170	71	67	51	125	398	79	36	394	47
Future Volume (veh/h)	51	21	170	71	67	51	125	398	79	36	394	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1535	1484	1900	1695	1792	1712	1738	1900	1387	1776	1727
Adj Flow Rate, veh/h	56	23	187	78	74	56	137	437	87	40	433	52
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	33	33	28	9	9	6	11	7	7	37	7	10
Cap, veh/h	91	19	481	80	47	581	166	525	105	52	551	445
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.10	0.37	0.37	0.04	0.31	0.31
Sat Flow, veh/h	0	49	1260	0	124	1522	1630	1408	280	1321	1776	1435
Grp Volume(v), veh/h	79	0	187	152	0	56	137	0	524	40	433	52
Grp Sat Flow(s),veh/h/ln	49	0	1260	124	0	1522	1630	0	1688	1321	1776	1435
Q Serve(g_s), s	0.0	0.0	7.3	0.0	0.0	1.6	5.6	0.0	19.2	2.0	15.1	1.8
Cycle Q Clear(g_c), s	25.9	0.0	7.3	25.9	0.0	1.6	5.6	0.0	19.2	2.0	15.1	1.8
Prop In Lane	0.71		1.00	0.51		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	109	0	481	128	0	581	166	0	629	52	551	445
V/C Ratio(X)	0.72	0.00	0.39	1.19	0.00	0.10	0.83	0.00	0.83	0.78	0.79	0.12
Avail Cap(c_a), veh/h	109	0	481	128	0	581	166	0	629	105	607	491
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	0.0	15.2	24.7	0.0	13.5	29.9	0.0	19.3	32.3	21.3	16.7
Incr Delay (d2), s/veh	21.5	0.0	0.6	139.7	0.0	0.1	28.1	0.0	10.8	24.5	8.5	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	2.1	0.0	2.6	7.3	0.0	0.7	3.8	0.0	10.8	1.1	8.6	0.7
LnGrp Delay(d),s/veh	49.4	0.0	15.8	164.3	0.0	13.5	58.0	0.0	30.1	56.9	29.8	17.1
LnGrp LOS	D		B	F		B	E		C	E	C	B
Approach Vol, veh/h		266			208			661			525	
Approach Delay, s/veh		25.8			123.7			35.9			30.6	
Approach LOS		C			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.7	30.7		30.4	11.0	26.4		30.4
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	5.4	24.7		25.9	6.9	23.2		25.9
Max Q Clear Time (g_c+I1), s	4.0	21.2		27.9	7.6	17.1		27.9
Green Ext Time (p_c), s	0.0	2.8		0.0	0.0	3.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	117	75	540	164	140	45	496	584	294	611	19
Future Volume (veh/h)	25	117	75	540	164	140	45	496	584	294	611	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1624	1881	1900	1845	1837	1863	1863	1792	1863	1827	1779	1900
Adj Flow Rate, veh/h	28	130	83	391	475	156	50	551	649	327	679	21
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	17	1	1	3	4	2	2	6	2	4	7	7
Cap, veh/h	155	214	128	463	484	415	64	967	449	352	1505	47
Arrive On Green	0.10	0.10	0.10	0.26	0.26	0.26	0.04	0.28	0.28	0.20	0.45	0.45
Sat Flow, veh/h	1547	2143	1277	1757	1837	1574	1774	3406	1580	1740	3345	103
Grp Volume(v), veh/h	28	107	106	391	475	156	50	551	649	327	343	357
Grp Sat Flow(s),veh/h/ln	1547	1787	1633	1757	1837	1574	1774	1703	1580	1740	1690	1758
Q Serve(g_s), s	2.0	7.1	7.7	26.0	31.6	10.0	3.4	17.0	35.0	22.8	17.3	17.3
Cycle Q Clear(g_c), s	2.0	7.1	7.7	26.0	31.6	10.0	3.4	17.0	35.0	22.8	17.3	17.3
Prop In Lane	1.00		0.78	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	155	179	163	463	484	415	64	967	449	352	760	791
V/C Ratio(X)	0.18	0.60	0.65	0.84	0.98	0.38	0.78	0.57	1.45	0.93	0.45	0.45
Avail Cap(c_a), veh/h	351	406	371	463	484	415	130	967	449	367	760	791
HCM Platoon Ratio	1.00	1.00	1.00	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	50.8	53.1	53.4	43.0	45.0	37.1	58.9	37.7	44.1	48.3	23.4	23.4
Incr Delay (d2), s/veh	0.6	3.2	4.3	13.3	35.7	0.6	17.7	1.0	213.0	29.2	0.6	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	0.9	3.6	3.7	14.3	20.9	4.4	2.0	8.2	41.8	13.8	8.1	8.5
LnGrp Delay(d),s/veh	51.4	56.3	57.7	56.3	80.8	37.6	76.6	38.7	257.1	77.5	24.0	24.0
LnGrp LOS	D	E	E	E	F	D	E	D	F	E	C	C
Approach Vol, veh/h		241			1022			1250			1027	
Approach Delay, s/veh		56.3			64.8			153.6			41.0	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	28.9	40.0		17.3	8.5	60.4		37.0
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	26.0	35.0		28.0	9.0	52.0		32.5
Max Q Clear Time (g_c+I1), s	24.8	37.0		9.7	5.4	19.3		33.6
Green Ext Time (p_c), s	0.1	0.0		1.2	0.0	20.5		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		88.7
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	976	13	17	794	558	12	16	6	356	11	143
Future Volume (veh/h)	154	976	13	17	794	558	12	16	6	356	11	143
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1881	1900	1792	1863	1827	1900	1675	1900	1759	1767	1776
Adj Flow Rate, veh/h	177	1122	15	20	913	0	14	18	7	418	0	164
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	1	1	6	2	4	0	12	12	8	0	7
Cap, veh/h	218	1614	22	31	1211	532	181	115	45	640	0	286
Arrive On Green	0.12	0.45	0.45	0.02	0.34	0.00	0.10	0.10	0.10	0.19	0.00	0.19
Sat Flow, veh/h	1774	3612	48	1707	3539	1553	1810	1145	445	3351	0	1500
Grp Volume(v), veh/h	177	555	582	20	913	0	14	0	25	418	0	164
Grp Sat Flow(s),veh/h/ln	1774	1787	1873	1707	1770	1553	1810	0	1591	1675	0	1500
Q Serve(g_s), s	7.8	19.9	19.9	0.9	18.3	0.0	0.6	0.0	1.1	9.2	0.0	7.9
Cycle Q Clear(g_c), s	7.8	19.9	19.9	0.9	18.3	0.0	0.6	0.0	1.1	9.2	0.0	7.9
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	218	799	837	31	1211	532	181	0	159	640	0	286
V/C Ratio(X)	0.81	0.69	0.70	0.65	0.75	0.00	0.08	0.00	0.16	0.65	0.00	0.57
Avail Cap(c_a), veh/h	277	799	837	109	1240	544	181	0	159	1342	0	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	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.2	17.7	17.7	39.0	23.3	0.0	32.6	0.0	32.9	29.9	0.0	29.4
Incr Delay (d2), s/veh	13.4	4.3	4.1	21.0	3.9	0.0	0.8	0.0	2.1	1.6	0.0	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	4.6	10.7	11.1	0.6	9.5	0.0	0.3	0.0	0.6	4.4	0.0	3.5
LnGrp Delay(d),s/veh	47.6	22.1	21.9	60.0	27.2	0.0	33.4	0.0	35.0	31.5	0.0	31.9
LnGrp LOS	D	C	C	E	C		C		C	C		C
Approach Vol, veh/h		1314			933			39			582	
Approach Delay, s/veh		25.4			27.9			34.4			31.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.0	5.9	40.7		20.3	14.3	32.4
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		8.0	5.1	35.4		32.0	12.5	28.0
Max Q Clear Time (g_c+I1), s		3.1	2.9	21.9		11.2	9.8	20.3
Green Ext Time (p_c), s		0.0	0.0	12.9		3.3	0.1	7.1

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	890	518	411	1218	0	0	0	0	46	0	220
Future Volume (veh/h)	0	890	518	411	1218	0	0	0	0	46	0	220
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1810	1881	1845	0				1827	1827	1900
Adj Flow Rate, veh/h	0	1000	582	462	1369	0				52	0	247
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	5	1	3	0				4	0	4
Cap, veh/h	0	1356	588	482	2503	0				320	0	285
Arrive On Green	0.00	0.38	0.38	0.54	1.00	0.00				0.18	0.00	0.18
Sat Flow, veh/h	0	3632	1534	1792	3597	0				1740	0	1553
Grp Volume(v), veh/h	0	1000	582	462	1369	0				52	0	247
Grp Sat Flow(s),veh/h/ln	0	1770	1534	1792	1752	0				1740	0	1553
Q Serve(g_s), s	0.0	21.9	33.9	22.2	0.0	0.0				2.3	0.0	13.9
Cycle Q Clear(g_c), s	0.0	21.9	33.9	22.2	0.0	0.0				2.3	0.0	13.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1356	588	482	2503	0				320	0	285
V/C Ratio(X)	0.00	0.74	0.99	0.96	0.55	0.00				0.16	0.00	0.87
Avail Cap(c_a), veh/h	0	1356	588	486	2503	0				445	0	397
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.70	0.70	0.25	0.25	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.9	27.6	20.3	0.0	0.0				30.9	0.0	35.7
Incr Delay (d2), s/veh	0.0	2.5	28.7	12.2	0.2	0.0				0.1	0.0	10.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.2	18.9	12.4	0.1	0.0				1.1	0.0	6.8
LnGrp Delay(d),s/veh	0.0	26.4	56.3	32.6	0.2	0.0				31.0	0.0	46.2
LnGrp LOS		C	E	C	A					C		D
Approach Vol, veh/h		1582			1831						299	
Approach Delay, s/veh		37.4			8.4						43.6	
Approach LOS		D			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	29.8	39.6		20.6		69.4		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	24.4	27.8		23.0		57.8		
Max Q Clear Time (g_c+I1), s	24.2	35.9		15.9		2.0		
Green Ext Time (p_c), s	0.0	0.0		0.6		25.6		

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	733	0	0	977	57	652	2	853	0	0	0
Future Volume (veh/h)	203	733	0	0	977	57	652	2	853	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1863	0	0	1863	1900	1845	1872	1881			
Adj Flow Rate, veh/h	226	814	0	0	1086	63	1055	0	595			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	3	2	0	0	2	2	3	0	1			
Cap, veh/h	254	1903	0	0	1204	70	1284	0	585			
Arrive On Green	0.29	1.00	0.00	0.00	0.35	0.35	0.37	0.00	0.37			
Sat Flow, veh/h	1757	3632	0	0	3493	197	3514	0	1599			
Grp Volume(v), veh/h	226	814	0	0	565	584	1055	0	595			
Grp Sat Flow(s),veh/h/ln	1757	1770	0	0	1770	1828	1757	0	1599			
Q Serve(g_s), s	11.1	0.0	0.0	0.0	27.3	27.3	24.5	0.0	32.9			
Cycle Q Clear(g_c), s	11.1	0.0	0.0	0.0	27.3	27.3	24.5	0.0	32.9			
Prop In Lane	1.00		0.00	0.00		0.11	1.00		1.00			
Lane Grp Cap(c), veh/h	254	1903	0	0	627	647	1284	0	585			
V/C Ratio(X)	0.89	0.43	0.00	0.00	0.90	0.90	0.82	0.00	1.02			
Avail Cap(c_a), veh/h	256	1903	0	0	627	647	1284	0	585			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.62	0.62	0.00	0.00	0.86	0.86	1.00	0.00	1.00			
Uniform Delay (d), s/veh	31.3	0.0	0.0	0.0	27.6	27.6	25.9	0.0	28.6			
Incr Delay (d2), s/veh	19.7	0.4	0.0	0.0	16.5	16.2	4.6	0.0	41.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.7	0.1	0.0	0.0	16.2	16.7	12.7	0.0	21.2			
LnGrp Delay(d),s/veh	51.0	0.4	0.0	0.0	44.1	43.8	30.5	0.0	70.4			
LnGrp LOS	D	A			D	D	C		F			
Approach Vol, veh/h		1040			1149			1650				
Approach Delay, s/veh		11.4			43.9			44.9				
Approach LOS		B			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		53.0			16.5	36.5		37.0
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		48.4			13.1	31.8		32.9
Max Q Clear Time (g_c+I1), s		2.0			13.1	29.3		34.9
Green Ext Time (p_c), s		13.1			0.0	2.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	1491	61	10	893	0	140	0	25	0	0	0
Future Volume (veh/h)	49	1491	61	10	893	0	140	0	25	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1875	1900	1583	1863	0	1845	0	1638			
Adj Flow Rate, veh/h	56	1714	70	11	1026	0	161	0	29			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	1	1	20	2	0	3	0	16			
Cap, veh/h	101	2387	97	17	2265	0	210	0	166			
Arrive On Green	0.06	0.68	0.68	0.01	0.64	0.00	0.12	0.00	0.12			
Sat Flow, veh/h	1810	3485	142	1508	3632	0	1757	0	1392			
Grp Volume(v), veh/h	56	871	913	11	1026	0	161	0	29			
Grp Sat Flow(s),veh/h/ln	1810	1781	1846	1508	1770	0	1757	0	1392			
Q Serve(g_s), s	2.2	22.0	22.5	0.5	10.7	0.0	6.5	0.0	1.4			
Cycle Q Clear(g_c), s	2.2	22.0	22.5	0.5	10.7	0.0	6.5	0.0	1.4			
Prop In Lane	1.00		0.08	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	101	1220	1264	17	2265	0	210	0	166			
V/C Ratio(X)	0.55	0.71	0.72	0.67	0.45	0.00	0.77	0.00	0.17			
Avail Cap(c_a), veh/h	173	1220	1264	116	2337	0	513	0	406			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.6	7.1	7.2	36.0	6.7	0.0	31.2	0.0	28.9			
Incr Delay (d2), s/veh	4.7	2.8	2.8	37.5	0.4	0.0	5.8	0.0	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			
%ile BackOfQ(50%),veh/ln	1.2	11.6	12.1	0.4	5.3	0.0	3.5	0.0	0.5			
LnGrp Delay(d),s/veh	38.3	9.9	10.0	73.5	7.1	0.0	37.0	0.0	29.4			
LnGrp LOS	D	A	A	E	A		D		C			
Approach Vol, veh/h		1840			1037			190				
Approach Delay, s/veh		10.8			7.8			35.8				
Approach LOS		B			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	4.8	55.0			8.1	51.7		13.2
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.6	49.6			7.0	48.2		21.3
Max Q Clear Time (g_c+I1), s	2.5	24.5			4.2	12.7		8.5
Green Ext Time (p_c), s	0.0	24.7			0.0	34.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	16	814	1377	4
Future Vol, veh/h	0	0	16	814	1377	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	135	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	17	857	1449	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	727	1454	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	371	471	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	371	471	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	471	-	-	-	-
HCM Lane V/C Ratio	0.036	-	-	-	-
HCM Control Delay (s)	12.9	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	99	126	92	168	275	96
Future Vol, veh/h	99	126	92	168	275	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	370	-	220	-	-	-
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	108	137	100	183	299	104

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	642	202	403	0	-	0
Stage 1	351	-	-	-	-	-
Stage 2	291	-	-	-	-	-
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	407	805	1152	-	-	-
Stage 1	684	-	-	-	-	-
Stage 2	733	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	372	805	1152	-	-	-
Mov Cap-2 Maneuver	372	-	-	-	-	-
Stage 1	684	-	-	-	-	-
Stage 2	669	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14	3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1152	-	372	805	-	-
HCM Lane V/C Ratio	0.087	-	0.289	0.17	-	-
HCM Control Delay (s)	8.4	-	18.6	10.4	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.2	0.6	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	524	922	41	12	635	135	161	13	20	12	4	63
Future Volume (veh/h)	524	922	41	12	635	135	161	13	20	12	4	63
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	570	1002	45	13	690	147	175	14	22	13	42	42
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	613	1631	73	264	834	177	221	82	128	22	72	81
Arrive On Green	0.35	0.47	0.47	0.15	0.29	0.29	0.12	0.12	0.12	0.05	0.05	0.05
Sat Flow, veh/h	1774	3450	155	1774	2905	618	1774	654	1028	435	1406	1583
Grp Volume(v), veh/h	570	514	533	13	420	417	175	0	36	55	0	42
Grp Sat Flow(s),veh/h/ln	1774	1770	1835	1774	1770	1754	1774	0	1681	1841	0	1583
Q Serve(g_s), s	27.5	19.2	19.2	0.6	19.7	19.7	8.5	0.0	1.7	2.6	0.0	2.3
Cycle Q Clear(g_c), s	27.5	19.2	19.2	0.6	19.7	19.7	8.5	0.0	1.7	2.6	0.0	2.3
Prop In Lane	1.00		0.08	1.00		0.35	1.00		0.61	0.24		1.00
Lane Grp Cap(c), veh/h	613	837	868	264	508	503	221	0	210	94	0	81
V/C Ratio(X)	0.93	0.61	0.61	0.05	0.83	0.83	0.79	0.00	0.17	0.58	0.00	0.52
Avail Cap(c_a), veh/h	719	1156	1199	264	538	533	599	0	568	104	0	89
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	28.0	17.4	17.4	32.4	29.6	29.6	37.7	0.0	34.7	41.2	0.0	41.1
Incr Delay (d2), s/veh	17.0	2.7	2.6	0.1	13.2	13.3	6.2	0.0	0.4	6.8	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	16.4	9.9	10.2	0.3	11.4	11.4	4.6	0.0	0.8	1.5	0.0	1.1
LnGrp Delay(d),s/veh	45.0	20.0	20.0	32.5	42.7	42.9	44.0	0.0	35.1	48.0	0.0	46.1
LnGrp LOS	D	C	B	C	D	D	D		D	D		D
Approach Vol, veh/h		1617			850			211			97	
Approach Delay, s/veh		28.8			42.7			42.4			47.2	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.2	47.0		15.1	34.7	30.5		8.5
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 58		30.0	36.0	27.0		5.0
Max Q Clear Time (g_c+I1), s	2.6	21.2		10.5	29.5	21.7		4.6
Green Ext Time (p_c), s	1.9	20.8		0.6	1.2	3.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C

Notes

Intersection	
Intersection Delay, s/veh	41.8
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	250	529	158	228	0	302	0	78	1	0	1
Future Vol, veh/h	0	250	529	158	228	0	302	0	78	1	0	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	13	5	7	13	0	9	0	4	0	0	0
Mvmt Flow	0	278	588	176	253	0	336	0	87	1	0	1
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	59.3	18.1	30.1	12.1
HCM LOS	F	C	D	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	0%	100%	0%	50%
Vol Thru, %	0%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	100%	0%	100%	0%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	302	78	250	529	158	228	2
LT Vol	302	0	0	0	158	0	1
Through Vol	0	0	250	0	0	228	0
RT Vol	0	78	0	529	0	0	1
Lane Flow Rate	336	87	278	588	176	253	2
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.777	0.167	0.565	1.055	0.395	0.541	0.005
Departure Headway (Hd)	8.463	7.076	7.319	6.462	8.252	7.842	9.101
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	430	510	497	564	439	464	396
Service Time	6.163	4.776	5.019	4.162	5.952	5.542	7.101
HCM Lane V/C Ratio	0.781	0.171	0.559	1.043	0.401	0.545	0.005
HCM Control Delay	35	11.2	19.1	78.3	16.2	19.4	12.1
HCM Lane LOS	D	B	C	F	C	C	B
HCM 95th-tile Q	6.7	0.6	3.5	16.9	1.9	3.2	0

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	79	420	4	111	972
Future Vol, veh/h	3	79	420	4	111	972
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	9	0	1	3
Mvmt Flow	3	87	462	4	122	1068

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1776	464	0	0	466	0
Stage 1	464	-	-	-	-	-
Stage 2	1312	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	92	602	-	-	1101	-
Stage 1	637	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	82	602	-	-	1101	-
Mov Cap-2 Maneuver	82	-	-	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	226	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	489	1101	-
HCM Lane V/C Ratio	-	-	0.184	0.111	-
HCM Control Delay (s)	-	-	14	8.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.4	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	1	39	2	3	2	421	41	3	985	2
Future Vol, veh/h	1	1	1	39	2	3	2	421	41	3	985	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	-	-	30	-	-	30	105	-	210	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	1	1	1	46	2	4	2	495	48	4	1159	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1668	1667	1160	1668	1668	495	1161	0	0	495	0	0
Stage 1	1167	1167	-	500	500	-	-	-	-	-	-	-
Stage 2	501	500	-	1168	1168	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	77	97	240	77	97	579	609	-	-	1079	-	-
Stage 1	238	270	-	557	546	-	-	-	-	-	-	-
Stage 2	556	546	-	238	270	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	75	96	240	76	96	579	609	-	-	1079	-	-
Mov Cap-2 Maneuver	75	96	-	76	96	-	-	-	-	-	-	-
Stage 1	237	269	-	555	544	-	-	-	-	-	-	-
Stage 2	548	544	-	235	269	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39.4	103.3	0	0
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	609	-	-	84	240	77	579	1079	-	-
HCM Lane V/C Ratio	0.004	-	-	0.028	0.005	0.626	0.006	0.003	-	-
HCM Control Delay (s)	10.9	-	-	49.1	20.1	110	11.3	8.3	-	-
HCM Lane LOS	B	-	-	E	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	2.8	0	0	-	-

Intersection	
Intersection Delay, s/veh	23.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	97	22	181	105	26	10	81	175	25	5	288	99
Future Vol, veh/h	97	22	181	105	26	10	81	175	25	5	288	99
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	4	9	6	0	0	0	5	8	4	0	3	8
Mvmt Flow	120	27	223	130	32	12	100	216	31	6	356	122
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	17.8	19.9	20.8	31.5
HCM LOS	C	C	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	82%	0%	74%	100%	0%	0%
Vol Thru, %	0%	88%	18%	0%	18%	0%	100%	0%
Vol Right, %	0%	12%	0%	100%	7%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	81	200	119	181	141	5	288	99
LT Vol	81	0	97	0	105	5	0	0
Through Vol	0	175	22	0	26	0	288	0
RT Vol	0	25	0	181	10	0	0	99
Lane Flow Rate	100	247	147	223	174	6	356	122
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.254	0.59	0.369	0.495	0.455	0.015	0.813	0.258
Departure Headway (Hd)	9.16	8.603	9.032	7.981	9.419	8.692	8.23	7.595
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	392	420	398	451	383	412	441	473
Service Time	6.913	6.355	6.784	5.732	7.178	6.44	5.977	5.343
HCM Lane V/C Ratio	0.255	0.588	0.369	0.494	0.454	0.015	0.807	0.258
HCM Control Delay	15	23.1	17	18.3	19.9	11.6	38.2	13
HCM Lane LOS	B	C	C	C	C	B	E	B
HCM 95th-tile Q	1	3.7	1.7	2.7	2.3	0	7.5	1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	17	290	591	0
Future Vol, veh/h	0	9	17	290	591	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	0	12	23	392	799	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1237	799	799	0	-	0
Stage 1	799	-	-	-	-	-
Stage 2	438	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	196	389	833	-	-	-
Stage 1	446	-	-	-	-	-
Stage 2	655	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	191	389	833	-	-	-
Mov Cap-2 Maneuver	191	-	-	-	-	-
Stage 1	446	-	-	-	-	-
Stage 2	637	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	833	-	389	-	-
HCM Lane V/C Ratio	0.028	-	0.031	-	-
HCM Control Delay (s)	9.4	-	14.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	63.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	85	114	193	126	242	358
Future Vol, veh/h	85	114	193	126	242	358
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	4	2	5	4
Mvmt Flow	120	161	272	177	341	504

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1547	361	0	0	449	0
Stage 1	361	-	-	-	-	-
Stage 2	1186	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245	-
Pot Cap-1 Maneuver	127	688	-	-	1096	-
Stage 1	710	-	-	-	-	-
Stage 2	293	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 87	688	-	-	1096	-
Mov Cap-2 Maneuver	~ 87	-	-	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	202	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 347.2	0	3.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	174	1096	-
HCM Lane V/C Ratio	-	-	1.611	0.311	-
HCM Control Delay (s)	-	-	$ 347.2	9.8	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	18.9	1.3	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	5.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	67	272	113	150	348
Future Vol, veh/h	30	67	272	113	150	348
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	0	0	3	1	0	2
Mvmt Flow	50	112	453	188	250	580

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1628	548	0	0	642	0
Stage 1	548	-	-	-	-	-
Stage 2	1080	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	113	540	-	-	952	-
Stage 1	583	-	-	-	-	-
Stage 2	329	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	83	540	-	-	952	-
Mov Cap-2 Maneuver	83	-	-	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	243	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	40	0	3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	83	540	952	-
HCM Lane V/C Ratio	-	-	0.602	0.207	0.263	-
HCM Control Delay (s)	-	-	99.5	13.4	10.1	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	2.7	0.8	1.1	-

Intersection	
Int Delay, s/veh	81.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	0	0	3	127	0	103	3	282	129	109	265	4
Future Vol, veh/h	0	0	3	127	0	103	3	282	129	109	265	4
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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	2	0
Mvmt Flow	0	0	4	187	0	151	4	415	190	160	390	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1307	1326	393	1233	1234	510	396	0	0	604	0	0
Stage 1	713	713	-	518	518	-	-	-	-	-	-	-
Stage 2	594	613	-	715	716	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	138	157	660	~ 155	178	567	1174	-	-	984	-	-
Stage 1	426	438	-	544	536	-	-	-	-	-	-	-
Stage 2	495	486	-	425	437	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	88	131	660	~ 134	149	567	1174	-	-	984	-	-
Mov Cap-2 Maneuver	88	131	-	~ 134	149	-	-	-	-	-	-	-
Stage 1	425	367	-	542	534	-	-	-	-	-	-	-
Stage 2	362	484	-	354	366	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	$ 358	0.1	2.7
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1174	-	-	660	204	984	-	-
HCM Lane V/C Ratio	0.004	-	-	0.007	1.658	0.163	-	-
HCM Control Delay (s)	8.1	-	-	10.5	$ 358	9.4	-	-
HCM Lane LOS	A	-	-	B	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	22.4	0.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	9.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	161	60	354	304	111	284
Future Vol, veh/h	161	60	354	304	111	284
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	3	1	1	2
Mvmt Flow	218	81	478	411	150	384

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1368	684	0	0	889	0
Stage 1	684	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	~ 163	452	-	-	766	-
Stage 1	505	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 131	452	-	-	766	-
Mov Cap-2 Maneuver	264	-	-	-	-	-
Stage 1	505	-	-	-	-	-
Stage 2	406	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	48	0	3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	264	452	766	-
HCM Lane V/C Ratio	-	-	0.824	0.179	0.196	-
HCM Control Delay (s)	-	-	60.4	14.7	10.8	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	6.6	0.6	0.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	39	56	640	465	0
Future Vol, veh/h	1	39	56	640	465	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	19	9	3	3	0
Mvmt Flow	1	53	76	865	628	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1644	628	628	0	-	0
Stage 1	628	-	-	-	-	-
Stage 2	1016	-	-	-	-	-
Critical Hdwy	6.4	6.39	4.19	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.471	2.281	-	-	-
Pot Cap-1 Maneuver	111	454	921	-	-	-
Stage 1	536	-	-	-	-	-
Stage 2	353	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	102	454	921	-	-	-
Mov Cap-2 Maneuver	227	-	-	-	-	-
Stage 1	536	-	-	-	-	-
Stage 2	324	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.3	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	921	-	443	-	-
HCM Lane V/C Ratio	0.082	-	0.122	-	-
HCM Control Delay (s)	9.3	-	14.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.4	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	189	1	1	15	141	746	5	22	633	20
Future Vol, veh/h	0	0	189	1	1	15	141	746	5	22	633	20
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	2	0	0	7	3	4	0	0	6	20
Mvmt Flow	0	0	199	1	1	16	148	785	5	23	666	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	666	1798	1798	788	666	0	0	791	0	0
Stage 1	-	-	-	1085	1085	-	-	-	-	-	-	-
Stage 2	-	-	-	713	713	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.1	6.5	6.27	4.13	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.5	4	3.363	2.227	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	459	63	81	383	919	-	-	838	-	-
Stage 1	0	0	-	265	295	-	-	-	-	-	-	-
Stage 2	0	0	-	426	438	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	459	31	66	383	919	-	-	838	-	-
Mov Cap-2 Maneuver	-	-	-	31	66	-	-	-	-	-	-	-
Stage 1	-	-	-	222	247	-	-	-	-	-	-	-
Stage 2	-	-	-	235	426	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.7	25.2	1.5	0.3
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	919	-	-	459	196	838	-	-
HCM Lane V/C Ratio	0.162	-	-	0.433	0.091	0.028	-	-
HCM Control Delay (s)	9.7	-	-	18.7	25.2	9.4	-	-
HCM Lane LOS	A	-	-	C	D	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	2.2	0.3	0.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	122	413	150	105	49	352	409	180	48	353	87
Future Volume (veh/h)	63	122	413	150	105	49	352	409	180	48	353	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1827	1845	1827	1814	1900	1759	1845	1845	1863	1823	1900
Adj Flow Rate, veh/h	71	137	464	169	118	55	396	460	202	54	397	98
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	4	3	4	6	6	8	3	3	2	5	5
Cap, veh/h	460	488	410	243	163	76	408	714	598	69	486	118
Arrive On Green	0.27	0.27	0.27	0.14	0.14	0.14	0.24	0.39	0.39	0.04	0.18	0.18
Sat Flow, veh/h	1723	1827	1534	1740	1164	543	1675	1845	1546	1774	2730	665
Grp Volume(v), veh/h	71	137	464	169	0	173	396	460	202	54	250	245
Grp Sat Flow(s),veh/h/ln	1723	1827	1534	1740	0	1707	1675	1845	1546	1774	1732	1663
Q Serve(g_s), s	3.3	6.2	28.0	9.7	0.0	10.2	24.5	21.3	9.7	3.2	14.5	14.9
Cycle Q Clear(g_c), s	3.3	6.2	28.0	9.7	0.0	10.2	24.5	21.3	9.7	3.2	14.5	14.9
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	460	488	410	243	0	238	408	714	598	69	309	296
V/C Ratio(X)	0.15	0.28	1.13	0.70	0.00	0.73	0.97	0.64	0.34	0.78	0.81	0.83
Avail Cap(c_a), veh/h	460	488	410	465	0	456	408	714	598	102	339	325
HCM Platoon Ratio	1.00	1.00	1.00	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	29.4	30.4	38.4	43.0	0.0	43.2	39.3	26.2	22.6	49.9	41.4	41.5
Incr Delay (d2), s/veh	0.1	0.1	85.6	1.3	0.0	1.6	37.0	1.6	0.1	11.4	11.3	13.6
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	3.2	21.6	4.7	0.0	4.9	15.5	11.2	4.1	1.8	7.9	7.9
LnGrp Delay(d),s/veh	29.4	30.5	124.1	44.3	0.0	44.7	76.3	27.8	22.8	61.3	52.7	55.1
LnGrp LOS	C	C	F	D		D	E	C	C	E	D	E
Approach Vol, veh/h		672			342			1058			549	
Approach Delay, s/veh		95.0			44.5			45.0			54.6	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.1	46.1		32.0	30.0	24.2		18.6
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	6.0	40.5		28.0	25.5	20.5		28.0
Max Q Clear Time (g_c+I1), s	5.2	23.3		30.0	26.5	16.9		12.2
Green Ext Time (p_c), s	0.0	4.2		0.0	0.0	1.6		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	59.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	27	16	71	14	450	22	645	80	388	682	12
Future Volume (veh/h)	11	27	16	71	14	450	22	645	80	388	682	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1839	1845	1900	1845	1827	1863	1863	1900
Adj Flow Rate, veh/h	12	29	17	76	15	479	23	686	85	413	726	13
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	3	0	3	4	2	2	2
Cap, veh/h	92	200	100	325	58	727	28	733	611	447	1157	21
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.02	0.40	0.40	0.25	0.63	0.63
Sat Flow, veh/h	195	939	470	1171	270	1561	1810	1845	1537	1774	1824	33
Grp Volume(v), veh/h	58	0	0	91	0	479	23	686	85	413	0	739
Grp Sat Flow(s),veh/h/ln	1604	0	0	1441	0	1561	1810	1845	1537	1774	0	1857
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	18.5	1.1	31.0	3.1	19.7	0.0	21.0
Cycle Q Clear(g_c), s	2.3	0.0	0.0	4.1	0.0	18.5	1.1	31.0	3.1	19.7	0.0	21.0
Prop In Lane	0.21		0.29	0.84		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	391	0	0	383	0	727	28	733	611	447	0	1177
V/C Ratio(X)	0.15	0.00	0.00	0.24	0.00	0.66	0.84	0.94	0.14	0.92	0.00	0.63
Avail Cap(c_a), veh/h	391	0	0	383	0	727	114	774	645	469	0	1177
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.8	0.0	0.0	28.5	0.0	18.0	42.7	25.1	16.7	31.7	0.0	9.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	2.2	20.8	18.1	0.1	23.3	0.0	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	1.1	0.0	0.0	1.9	0.0	9.3	0.7	19.3	1.3	12.5	0.0	11.0
LnGrp Delay(d),s/veh	28.0	0.0	0.0	28.8	0.0	20.2	63.5	43.2	16.8	55.1	0.0	10.7
LnGrp LOS	C			C		C	E	D	B	E		B
Approach Vol, veh/h		58			570			794			1152	
Approach Delay, s/veh		28.0			21.6			41.0			26.6	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.9	38.6		22.5	5.3	59.1		22.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	23.0	36.5		18.5	5.5	54.0		18.5
Max Q Clear Time (g_c+I1), s	21.7	33.0		4.3	3.1	23.0		20.5
Green Ext Time (p_c), s	0.2	1.5		2.4	0.0	13.4		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		30.0
HCM 2010 LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	49	76	105	35	60	105	444	126	46	191	333
Future Volume (veh/h)	59	49	76	105	35	60	105	444	126	46	191	333
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1869	1900	1881	1876	1900	1827	1853	1900	1900	1845	1863
Adj Flow Rate, veh/h	63	52	81	112	37	64	112	472	134	49	203	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	0	0	4	3	3	0	3	2
Cap, veh/h	136	112	221	250	86	149	158	812	229	96	483	414
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.09	0.30	0.30	0.05	0.26	0.00
Sat Flow, veh/h	997	823	1615	1792	618	1069	1740	2713	765	1810	1845	1583
Grp Volume(v), veh/h	115	0	81	112	0	101	112	305	301	49	203	0
Grp Sat Flow(s),veh/h/ln	1819	0	1615	1792	0	1688	1740	1760	1718	1810	1845	1583
Q Serve(g_s), s	2.2	0.0	1.8	2.2	0.0	2.1	2.4	5.7	5.7	1.0	3.5	0.0
Cycle Q Clear(g_c), s	2.2	0.0	1.8	2.2	0.0	2.1	2.4	5.7	5.7	1.0	3.5	0.0
Prop In Lane	0.55		1.00	1.00		0.63	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	249	0	221	250	0	236	158	527	514	96	483	414
V/C Ratio(X)	0.46	0.00	0.37	0.45	0.00	0.43	0.71	0.58	0.59	0.51	0.42	0.00
Avail Cap(c_a), veh/h	1204	0	1069	856	0	806	881	1590	1552	329	1068	916
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	15.3	0.0	15.1	15.2	0.0	15.2	17.0	11.4	11.5	17.8	11.8	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.4	0.5	0.0	0.5	2.2	0.5	0.6	1.6	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	1.2	0.0	0.8	1.1	0.0	1.0	1.2	2.8	2.8	0.5	1.8	0.0
LnGrp Delay(d),s/veh	15.8	0.0	15.5	15.7	0.0	15.6	19.2	12.0	12.0	19.3	12.1	0.0
LnGrp LOS	B		B	B		B	B	B	B	B	B	
Approach Vol, veh/h		196			213			718			252	
Approach Delay, s/veh		15.7			15.6			13.1			13.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	15.2		8.8	6.5	13.8		9.5
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	7.0	34.8		25.5	19.5	22.3		18.4
Max Q Clear Time (g_c+I1), s	3.0	7.7		4.2	4.4	5.5		4.2
Green Ext Time (p_c), s	0.0	3.8		0.4	0.1	3.4		0.4

Intersection Summary		
HCM 2010 Ctrl Delay		14.0
HCM 2010 LOS		B

Intersection	
Int Delay, s/veh	30.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	122	426	249	88	123	249
Future Vol, veh/h	122	426	249	88	123	249
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	93	93	93	93	93	93
Heavy Vehicles, %	1	3	3	2	4	1
Mvmt Flow	131	458	268	95	132	268

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	800	268	0	0	268	0
Stage 1	268	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Critical Hdwy	6.41	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	356	768	-	-	1284	-
Stage 1	779	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	313	768	-	-	1284	-
Mov Cap-2 Maneuver	313	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	519	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	68.2	0	2.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	580	1284	-
HCM Lane V/C Ratio	-	-	1.016	0.103	-
HCM Control Delay (s)	-	-	68.2	8.1	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	15.5	0.3	-

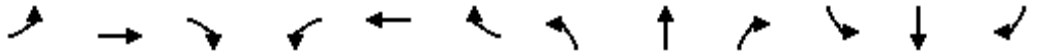
Intersection	
Int Delay, s/veh	3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	184	44	55	211	59	84
Future Vol, veh/h	184	44	55	211	59	84
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, %	1	3	2	6	5	4
Mvmt Flow	200	48	60	229	64	91

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	248	0	573	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	349	-
Critical Hdwy	-	-	4.12	-	6.45	6.24
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.336
Pot Cap-1 Maneuver	-	-	1318	-	476	810
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	707	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1318	-	451	810
Mov Cap-2 Maneuver	-	-	-	-	451	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	670	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.6	12.9
HCM LOS			B

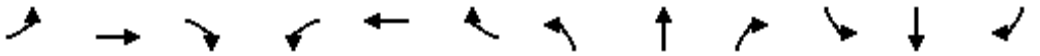
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	610	-	-	1318	-
HCM Lane V/C Ratio	0.255	-	-	0.045	-
HCM Control Delay (s)	12.9	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0.1	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	282	162	464	303	44	140	1122	433	23	751	161
Future Volume (veh/h)	189	282	162	464	303	44	140	1122	433	23	751	161
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1827	1845	1845	1863	1810	1810	1881	1845	1743	1863	1810
Adj Flow Rate, veh/h	212	317	182	521	340	49	157	1261	487	26	844	181
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	1	4	3	3	2	5	5	1	3	9	2	5
Cap, veh/h	246	411	353	560	470	383	182	1360	854	35	1046	666
Arrive On Green	0.14	0.23	0.23	0.16	0.25	0.25	0.11	0.38	0.38	0.02	0.30	0.30
Sat Flow, veh/h	1792	1827	1568	3408	1863	1518	1723	3574	1568	1660	3539	1538
Grp Volume(v), veh/h	212	317	182	521	340	49	157	1261	487	26	844	181
Grp Sat Flow(s),veh/h/ln	1792	1827	1568	1704	1863	1518	1723	1787	1568	1660	1770	1538
Q Serve(g_s), s	11.1	15.5	9.7	14.4	15.9	2.4	8.6	32.3	19.6	1.5	21.1	7.2
Cycle Q Clear(g_c), s	11.1	15.5	9.7	14.4	15.9	2.4	8.6	32.3	19.6	1.5	21.1	7.2
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	246	411	353	560	470	383	182	1360	854	35	1046	666
V/C Ratio(X)	0.86	0.77	0.52	0.93	0.72	0.13	0.86	0.93	0.57	0.75	0.81	0.27
Avail Cap(c_a), veh/h	272	459	394	560	491	401	182	1360	854	87	1119	697
HCM Platoon Ratio	1.00	1.00	1.00	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	40.3	34.7	32.5	39.4	32.7	27.6	42.0	28.3	14.4	46.5	31.1	17.4
Incr Delay (d2), s/veh	22.2	9.1	2.5	22.3	6.4	0.3	31.9	11.5	1.5	27.2	5.0	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	7.0	8.9	4.4	8.5	9.0	1.0	5.7	17.9	8.8	0.9	11.0	3.2
LnGrp Delay(d),s/veh	62.5	43.8	34.9	61.7	39.1	27.9	73.9	39.9	15.9	73.7	36.1	17.9
LnGrp LOS	E	D	C	E	D	C	E	D	B	E	D	B
Approach Vol, veh/h		711			910			1905			1051	
Approach Delay, s/veh		47.1			51.4			36.5			33.9	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	41.8	20.2	27.0	14.6	33.7	17.6	29.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	35.3	15.7	24.0	10.1	30.2	14.5	25.2
Max Q Clear Time (g_c+I1), s	3.5	34.3	16.4	17.5	10.6	23.1	13.1	17.9
Green Ext Time (p_c), s	0.0	1.0	0.0	4.0	0.0	5.2	0.1	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	40.5
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	142	199	0	121	0	1576	188	108	1269	0
Future Volume (vph)	0	0	142	199	0	121	0	1576	188	108	1269	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00		1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00		1.00	1.00	
Frt			0.86	1.00		0.85		0.98		1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)			1602	1764		1553		3490		1787	3539	
Flt Permitted			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (perm)			1602	1764		1553		3490		1787	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	148	207	0	126	0	1642	196	112	1322	0
RTOR Reduction (vph)	0	0	74	0	0	104	0	11	0	0	0	0
Lane Group Flow (vph)	0	0	74	207	0	22	0	1827	0	113	1322	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Perm		Perm		NA		Prot	NA	Perm
Protected Phases								6		5	2	
Permitted Phases			4	8		8						2
Actuated Green, G (s)			13.5	13.5		13.5		45.5		5.9	55.4	
Effective Green, g (s)			13.5	13.5		13.5		45.5		5.9	55.4	
Actuated g/C Ratio			0.17	0.17		0.17		0.58		0.08	0.71	
Clearance Time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Vehicle Extension (s)			3.0	4.0		4.0		4.0		0.5	4.0	
Lane Grp Cap (vph)			275	303		267		2025		134	2500	
v/s Ratio Prot								c0.52		c0.06	0.37	
v/s Ratio Perm			0.05	c0.12		0.01						
v/c Ratio			0.27	0.68		0.08		0.90		0.84	0.53	
Uniform Delay, d1			28.2	30.4		27.2		14.5		35.8	5.4	
Progression Factor			1.00	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2			0.5	6.8		0.2		6.2		34.5	0.3	
Delay (s)			28.7	37.2		27.4		20.7		70.3	5.7	
Level of Service			C	D		C		C		E	A	
Approach Delay (s)		28.7			33.5			20.7			10.7	
Approach LOS		C			C			C			B	

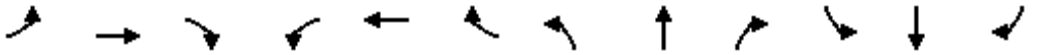
Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	78.4	Sum of lost time (s)	13.5
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	26	368	107	24	33	358	1566	69	61	1451	117
Future Volume (veh/h)	188	26	368	107	24	33	358	1566	69	61	1451	117
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1863	1863	1863	1881
Adj Flow Rate, veh/h	200	28	391	114	26	35	381	1666	73	65	1544	124
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	1
Cap, veh/h	190	302	452	137	254	212	348	2061	921	83	1510	673
Arrive On Green	0.10	0.17	0.17	0.08	0.14	0.14	0.20	0.58	0.58	0.05	0.43	0.43
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	3539	1582	1774	3539	1577
Grp Volume(v), veh/h	200	28	391	114	26	35	381	1666	73	65	1544	124
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1770	1582	1774	1770	1577
Q Serve(g_s), s	14.0	1.7	18.6	8.5	1.7	2.7	27.0	49.6	2.7	4.8	57.0	6.5
Cycle Q Clear(g_c), s	14.0	1.7	18.6	8.5	1.7	2.7	27.0	49.6	2.7	4.8	57.0	6.5
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	190	302	452	137	254	212	348	2061	921	83	1510	673
V/C Ratio(X)	1.05	0.09	0.86	0.83	0.10	0.17	1.09	0.81	0.08	0.78	1.02	0.18
Avail Cap(c_a), veh/h	190	421	630	174	410	342	348	2061	921	104	1510	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)	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	59.8	47.2	54.3	60.7	50.2	50.7	53.3	22.0	12.2	63.0	38.3	23.8
Incr Delay (d2), s/veh	80.5	0.1	8.9	22.7	0.2	0.4	75.7	2.8	0.1	26.0	28.9	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	11.2	0.9	7.6	5.0	0.9	1.2	20.1	24.9	1.2	3.0	33.8	2.9
LnGrp Delay(d),s/veh	140.2	47.4	63.2	83.4	50.4	51.0	129.0	24.9	12.3	88.9	67.2	24.1
LnGrp LOS	F	D	E	F	D	D	F	C	B	F	F	C
Approach Vol, veh/h		619			175			2120			1733	
Approach Delay, s/veh		87.4			72.0			43.1			64.9	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	82.8	14.4	26.1	31.0	62.0	18.0	22.6
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	7.8	76.2	13.2	30.8	27.0	57.0	14.0	30.0
Max Q Clear Time (g_c+I1), s	6.8	51.6	10.5	20.6	29.0	59.0	16.0	4.7
Green Ext Time (p_c), s	0.0	24.4	0.1	1.5	0.0	0.0	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	58.2
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	0	307	556	137	328	418	1506	392	0	1707	209
Future Volume (veh/h)	200	0	307	556	137	328	418	1506	392	0	1707	209
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1863	1845	1839	1810	1881	1845	1863	0	1792	1881
Adj Flow Rate, veh/h	213	0	327	591	298	248	445	1602	417	0	1816	222
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	3	2	5	1	3	2	0	6	1
Cap, veh/h	174	0	0	1076	325	272	469	3121	981	0	1550	506
Arrive On Green	0.10	0.00	0.00	0.31	0.18	0.18	0.52	1.00	1.00	0.00	0.32	0.32
Sat Flow, veh/h	1810	213		3514	1839	1538	1792	5036	1583	0	5055	1599
Grp Volume(v), veh/h	213	209.8		591	298	248	445	1602	417	0	1816	222
Grp Sat Flow(s),veh/h/ln	1810	F		1757	1839	1538	1792	1679	1583	0	1631	1599
Q Serve(g_s), s	14.4			21.0	23.9	23.7	35.3	0.0	0.0	0.0	47.5	16.5
Cycle Q Clear(g_c), s	14.4			21.0	23.9	23.7	35.3	0.0	0.0	0.0	47.5	16.5
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	174			1076	325	272	469	3121	981	0	1550	506
V/C Ratio(X)	1.23			0.55	0.92	0.91	0.95	0.51	0.42	0.00	1.17	0.44
Avail Cap(c_a), veh/h	174			1368	478	400	469	3121	981	0	1550	506
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	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	0.37	0.37
Uniform Delay (d), s/veh	67.8			43.4	60.6	60.6	34.8	0.0	0.0	0.0	51.3	40.7
Incr Delay (d2), s/veh	142.0			0.2	13.6	14.9	28.7	0.6	1.3	0.0	80.2	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
%ile BackOfQ(50%),veh/ln	14.0			10.2	13.4	11.3	21.0	0.2	0.4	0.0	32.9	7.5
LnGrp Delay(d),s/veh	209.8			43.6	74.2	75.5	63.5	0.6	1.3	0.0	131.4	41.7
LnGrp LOS	F			D	E	E	E	A	A		F	D
Approach Vol, veh/h					1137			2464			2038	
Approach Delay, s/veh					58.6			12.1			121.7	
Approach LOS					E			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		99.2	50.8		45.5	53.7	19.0	31.8
Change Period (Y+Rc), s		6.2	4.9		6.2	* 6.2	4.6	5.3
Max Green Setting (Gmax), s		80.5	58.4		28.3	* 48	14.4	39.0
Max Q Clear Time (g_c+I1), s		2.0	23.0		37.3	49.5	16.4	25.9
Green Ext Time (p_c), s		6.3	0.4		0.0	0.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	66.5
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	624	276	151	199	0	464	0	1823	177	393	1207	460
Future Volume (veh/h)	624	276	151	199	0	464	0	1823	177	393	1207	460
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1881	0	1881	0	1827	1900	1881	1845	1881
Adj Flow Rate, veh/h	657	291	159	209	0	488	0	1919	186	414	1271	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	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	0	2	1	0	1	0	4	0	1	3	1
Cap, veh/h	919	430	188	210	0	0	0	2000	514	1048	2317	1057
Arrive On Green	0.27	0.12	0.12	0.12	0.00	0.00	0.00	0.32	0.32	0.60	1.00	0.00
Sat Flow, veh/h	3442	3610	1583	1792	209		0	6540	1615	3476	3505	1599
Grp Volume(v), veh/h	657	291	159	209	126.4		0	1919	186	414	1271	0
Grp Sat Flow(s),veh/h/ln	1721	1805	1583	1792	F		0	1571	1615	1738	1752	1599
Q Serve(g_s), s	25.9	11.6	14.8	17.5			0.0	45.0	9.6	9.3	0.0	0.0
Cycle Q Clear(g_c), s	25.9	11.6	14.8	17.5			0.0	45.0	9.6	9.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	919	430	188	210			0	2000	514	1048	2317	1057
V/C Ratio(X)	0.72	0.68	0.84	0.99			0.00	0.96	0.36	0.40	0.55	0.00
Avail Cap(c_a), veh/h	919	1011	443	210			0	2011	517	1048	2317	1057
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00			0.00	0.84	0.84	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.8	63.3	64.7	66.1			0.0	50.2	20.6	22.7	0.0	0.0
Incr Delay (d2), s/veh	2.5	0.7	3.9	60.3			0.0	11.2	1.7	0.1	0.9	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
%ile BackOfQ(50%),veh/ln	12.6	5.8	6.7	12.2			0.0	21.0	4.5	4.4	0.3	0.0
LnGrp Delay(d),s/veh	52.3	64.0	68.6	126.4			0.0	61.4	22.2	22.7	0.9	0.0
LnGrp LOS	D	E	E	F				E	C	C	A	
Approach Vol, veh/h		1107						2105			1685	
Approach Delay, s/veh		57.7						57.9			6.3	
Approach LOS		E						E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	51.4	53.9	22.2	22.4		105.4	44.6	
Change Period (Y+Rc), s	6.2	* 6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	22.4	* 48	17.6	42.0		75.0	37.9	
Max Q Clear Time (g_c+I1), s	11.3	47.0	19.5	16.8		2.0	27.9	
Green Ext Time (p_c), s	3.6	0.8	0.0	1.1		4.5	2.2	

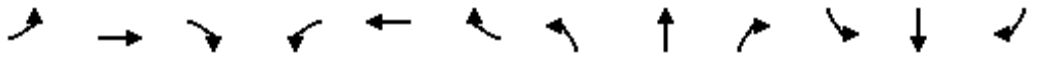
Intersection Summary	
HCM 2010 Ctrl Delay	43.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	0	51	75	0	156	48	1749	194	0	1360	90
Future Volume (veh/h)	97	0	51	75	0	156	48	1749	194	0	1360	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1900	1881	1863	1863	1900	0	1863	1863
Adj Flow Rate, veh/h	105	0	55	82	0	170	52	1901	211	0	1478	98
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	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
Percent Heavy Veh, %	2	2	2	2	2	1	2	2	2	0	2	2
Cap, veh/h	143	0	128	232	0	205	68	3870	429	0	2028	907
Arrive On Green	0.08	0.00	0.08	0.13	0.00	0.13	0.04	0.66	0.66	0.00	0.57	0.57
Sat Flow, veh/h	1774	0	1583	1810	0	1599	1774	5898	654	0	3632	1583
Grp Volume(v), veh/h	105	0	55	82	0	170	52	1549	563	0	1478	98
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1810	0	1599	1774	1602	1747	0	1770	1583
Q Serve(g_s), s	5.8	0.0	3.3	4.1	0.0	10.4	2.9	16.4	16.4	0.0	30.6	2.8
Cycle Q Clear(g_c), s	5.8	0.0	3.3	4.1	0.0	10.4	2.9	16.4	16.4	0.0	30.6	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	0.00		1.00
Lane Grp Cap(c), veh/h	143	0	128	232	0	205	68	3153	1146	0	2028	907
V/C Ratio(X)	0.73	0.00	0.43	0.35	0.00	0.83	0.77	0.49	0.49	0.00	0.73	0.11
Avail Cap(c_a), veh/h	319	0	285	326	0	288	89	3153	1146	0	2028	907
HCM Platoon Ratio	1.00	1.00	1.00	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	0.70	0.70	0.70	0.00	0.76	0.76
Uniform Delay (d), s/veh	44.9	0.0	43.8	39.8	0.0	42.5	47.6	8.7	8.7	0.0	15.7	9.7
Incr Delay (d2), s/veh	7.1	0.0	2.3	0.9	0.0	13.0	18.3	0.4	1.1	0.0	1.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	1.5	2.1	0.0	5.3	1.8	7.3	8.2	0.0	15.3	1.3
LnGrp Delay(d),s/veh	52.0	0.0	46.1	40.7	0.0	55.5	65.9	9.1	9.8	0.0	17.5	9.9
LnGrp LOS	D		D	D		E	E	A	A		B	A
Approach Vol, veh/h		160			252			2164			1576	
Approach Delay, s/veh		50.0			50.7			10.6			17.0	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		70.1		12.6	8.3	61.8		17.3
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		50.5		18.0	5.0	41.0		18.0
Max Q Clear Time (g_c+I1), s		18.4		7.8	4.9	32.6		12.4
Green Ext Time (p_c), s		30.1		0.4	0.0	8.2		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	17.0
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	1	107	0	70	2	1916	85	80	1407	1
Future Volume (veh/h)	5	0	1	107	0	70	2	1916	85	80	1407	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1776	1900	1900	1900	1863	1863	1696	1881	1900
Adj Flow Rate, veh/h	5	0	1	116	0	76	2	2083	92	87	1529	1
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	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
Percent Heavy Veh, %	0	0	0	7	0	0	0	2	2	12	1	0
Cap, veh/h	12	0	8	206	116	98	5	2998	933	108	2336	1055
Arrive On Green	0.01	0.00	0.00	0.06	0.00	0.06	0.00	0.59	0.59	0.07	0.65	0.65
Sat Flow, veh/h	1810	0	1615	3281	1900	1615	1810	5085	1582	1616	3574	1614
Grp Volume(v), veh/h	5	0	1	116	0	76	2	2083	92	87	1529	1
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1640	1900	1615	1810	1695	1582	1616	1787	1614
Q Serve(g_s), s	0.2	0.0	0.0	2.5	0.0	3.3	0.1	20.4	1.8	3.8	18.6	0.0
Cycle Q Clear(g_c), s	0.2	0.0	0.0	2.5	0.0	3.3	0.1	20.4	1.8	3.8	18.6	0.0
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	12	0	8	206	116	98	5	2998	933	108	2336	1055
V/C Ratio(X)	0.42	0.00	0.13	0.56	0.00	0.77	0.41	0.69	0.10	0.81	0.65	0.00
Avail Cap(c_a), veh/h	126	0	712	384	928	789	126	3115	969	142	2336	1055
HCM Platoon Ratio	1.00	1.00	1.00	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	35.5	0.0	35.5	32.6	0.0	33.2	35.7	10.2	6.4	33.0	7.5	4.3
Incr Delay (d2), s/veh	21.6	0.0	9.3	2.4	0.0	14.3	46.0	0.7	0.1	21.8	0.7	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	0.0	0.0	1.2	0.0	1.9	0.1	9.6	0.8	2.3	9.1	0.0
LnGrp Delay(d),s/veh	57.0	0.0	44.8	35.0	0.0	47.4	81.7	10.9	6.5	54.8	8.2	4.3
LnGrp LOS	E		D	D		D	F	B	A	D	A	A
Approach Vol, veh/h		6			192			2177			1617	
Approach Delay, s/veh		55.0			39.9			10.8			10.7	
Approach LOS		E			D			B			B	

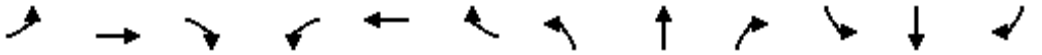
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	48.1	9.0	5.3	4.7	52.6	5.0	9.4
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	6.3	43.9	8.4	31.6	5.0	45.2	5.0	35.0
Max Q Clear Time (g_c+I1), s	5.8	22.4	4.5	2.0	2.1	20.6	2.2	5.3
Green Ext Time (p_c), s	0.0	19.8	0.1	0.3	0.0	24.0	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.2
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	119	74	26	1795	1402	67
Future Volume (veh/h)	119	74	26	1795	1402	67
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1863	1864	1900
Adj Flow Rate, veh/h	125	78	27	1889	1476	71
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2
Cap, veh/h	310	143	56	2563	3038	146
Arrive On Green	0.09	0.09	0.03	0.72	0.61	0.61
Sat Flow, veh/h	3510	1615	1810	3632	5144	239
Grp Volume(v), veh/h	125	78	27	1889	1007	540
Grp Sat Flow(s),veh/h/ln	1755	1615	1810	1770	1697	1822
Q Serve(g_s), s	1.8	2.5	0.8	17.2	8.9	8.9
Cycle Q Clear(g_c), s	1.8	2.5	0.8	17.2	8.9	8.9
Prop In Lane	1.00	1.00	1.00			0.13
Lane Grp Cap(c), veh/h	310	143	56	2563	2072	1112
V/C Ratio(X)	0.40	0.55	0.48	0.74	0.49	0.49
Avail Cap(c_a), veh/h	1194	549	173	2688	2072	1112
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.4	23.7	25.9	4.4	5.9	5.9
Incr Delay (d2), s/veh	0.8	3.2	6.4	1.1	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.2	0.5	8.5	4.1	4.5
LnGrp Delay(d),s/veh	24.3	27.0	32.3	5.5	6.1	6.3
LnGrp LOS	C	C	C	A	A	A
Approach Vol, veh/h	203			1916	1547	
Approach Delay, s/veh	25.3			5.9	6.1	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		9.3	6.2	38.9				45.1
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		18.5	5.2	31.6				41.3
Max Q Clear Time (g_c+I1), s		4.5	2.8	10.9				19.2
Green Ext Time (p_c), s		0.5	0.0	20.0				20.2

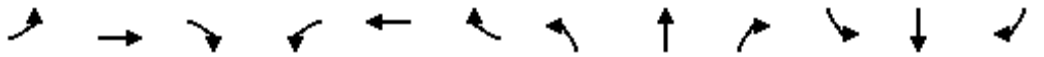
Intersection Summary	
HCM 2010 Ctrl Delay	7.1
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	380	412	411	70	340	220	406	1317	74	210	994	281
Future Volume (veh/h)	380	412	411	70	340	220	406	1317	74	210	994	281
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1845	1900	1900	1810	1900	1863	1863	1900	1863	1863	1845
Adj Flow Rate, veh/h	409	443	442	75	366	237	437	1416	80	226	1069	302
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	3	0	0	5	5	2	2	2	2	2	3
Cap, veh/h	372	1036	473	95	280	178	515	1337	75	210	1839	556
Arrive On Green	0.21	0.30	0.30	0.05	0.14	0.14	0.15	0.39	0.39	0.12	0.36	0.36
Sat Flow, veh/h	1792	3505	1599	1810	1989	1263	3442	3405	192	1774	5085	1537
Grp Volume(v), veh/h	409	443	442	75	315	288	437	734	762	226	1069	302
Grp Sat Flow(s),veh/h/ln	1792	1752	1599	1810	1719	1534	1721	1770	1827	1774	1695	1537
Q Serve(g_s), s	28.0	13.8	36.3	5.5	19.0	19.0	16.7	53.0	53.0	16.0	22.9	21.1
Cycle Q Clear(g_c), s	28.0	13.8	36.3	5.5	19.0	19.0	16.7	53.0	53.0	16.0	22.9	21.1
Prop In Lane	1.00		1.00	1.00		0.82	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	372	1036	473	95	242	216	515	695	717	210	1839	556
V/C Ratio(X)	1.10	0.43	0.94	0.79	1.30	1.33	0.85	1.06	1.06	1.07	0.58	0.54
Avail Cap(c_a), veh/h	372	1036	473	121	242	216	612	695	717	210	1839	556
HCM Platoon Ratio	1.00	1.00	1.00	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	53.5	38.3	46.3	63.2	58.0	58.0	55.9	41.0	41.0	59.5	34.8	34.2
Incr Delay (d2), s/veh	76.6	1.0	27.5	23.1	163.3	177.9	11.6	50.0	51.4	83.4	0.6	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	21.7	6.8	19.6	3.4	20.0	18.7	8.8	35.5	36.9	12.7	10.8	9.1
LnGrp Delay(d),s/veh	130.1	39.4	73.8	86.3	221.3	235.9	67.6	91.0	92.4	142.9	35.4	35.7
LnGrp LOS	F	D	E	F	F	F	E	F	F	F	D	D
Approach Vol, veh/h		1294			678			1933			1597	
Approach Delay, s/veh		79.8			212.5			86.2			50.7	
Approach LOS		E			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	58.0	11.1	45.9	24.2	53.8	32.0	25.0
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	16.0	53.0	9.0	38.0	24.0	45.0	28.0	19.0
Max Q Clear Time (g_c+I1), s	18.0	55.0	7.5	38.3	18.7	24.9	30.0	21.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	1.5	19.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	90.0
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	34	181	102	34	46	152	632	119	41	519	36
Future Volume (veh/h)	64	34	181	102	34	46	152	632	119	41	519	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1737	1845	1900	1743	1792	1681	1848	1900	1900	1827	1624
Adj Flow Rate, veh/h	70	37	199	112	37	51	167	695	131	45	570	40
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	12	12	3	9	9	6	13	3	3	0	4	17
Cap, veh/h	68	21	464	72	13	451	199	763	144	69	765	565
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.12	0.50	0.50	0.04	0.42	0.42
Sat Flow, veh/h	0	71	1565	0	44	1521	1601	1512	285	1810	1827	1350
Grp Volume(v), veh/h	107	0	199	149	0	51	167	0	826	45	570	40
Grp Sat Flow(s),veh/h/ln	71	0	1565	44	0	1521	1601	0	1797	1810	1827	1350
Q Serve(g_s), s	0.0	0.0	8.9	0.0	0.0	2.1	8.9	0.0	36.8	2.1	23.0	1.5
Cycle Q Clear(g_c), s	25.9	0.0	8.9	25.9	0.0	2.1	8.9	0.0	36.8	2.1	23.0	1.5
Prop In Lane	0.65		1.00	0.75		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	89	0	464	85	0	451	199	0	907	69	765	565
V/C Ratio(X)	1.20	0.00	0.43	1.74	0.00	0.11	0.84	0.00	0.91	0.65	0.74	0.07
Avail Cap(c_a), veh/h	89	0	464	85	0	451	240	0	918	114	774	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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	0.0	24.7	39.7	0.0	22.3	37.4	0.0	19.8	41.4	21.4	15.2
Incr Delay (d2), s/veh	158.2	0.0	0.7	378.4	0.0	0.1	20.3	0.0	13.8	11.6	5.2	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	6.1	0.0	3.9	11.0	0.0	0.9	5.1	0.0	21.6	1.3	12.7	0.6
LnGrp Delay(d),s/veh	195.8	0.0	25.5	418.1	0.0	22.5	57.7	0.0	33.6	53.0	26.6	15.3
LnGrp LOS	F		C	F		C	E		C	D	C	B
Approach Vol, veh/h		306			200			993			655	
Approach Delay, s/veh		85.0			317.2			37.7			27.7	
Approach LOS		F			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.4	49.5		30.4	14.9	42.0		30.4
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	5.5	44.6		25.9	13.1	37.0		25.9
Max Q Clear Time (g_c+I1), s	4.1	38.8		27.9	10.9	25.0		27.9
Green Ext Time (p_c), s	0.0	5.3		0.0	0.1	10.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.3
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	141	22	806	160	380	43	811	736	205	729	26
Future Volume (veh/h)	32	141	22	806	160	380	43	811	736	205	729	26
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1836	1900	1881	1869	1900	1900	1845	1881	1900	1861	1900
Adj Flow Rate, veh/h	34	150	23	978	0	404	46	863	783	218	776	28
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	1	3	0	0	3	1	0	2	2
Cap, veh/h	146	254	38	1059	0	475	60	1281	584	207	1554	56
Arrive On Green	0.08	0.08	0.08	0.30	0.00	0.30	0.03	0.37	0.37	0.11	0.45	0.45
Sat Flow, veh/h	1740	3034	456	3583	0	1607	1810	3505	1596	1810	3478	125
Grp Volume(v), veh/h	34	85	88	978	0	404	46	863	783	218	394	410
Grp Sat Flow(s),veh/h/ln	1740	1744	1746	1792	0	1607	1810	1752	1596	1810	1768	1835
Q Serve(g_s), s	2.4	6.2	6.4	34.7	0.0	31.1	3.3	27.2	48.0	15.0	20.9	20.9
Cycle Q Clear(g_c), s	2.4	6.2	6.4	34.7	0.0	31.1	3.3	27.2	48.0	15.0	20.9	20.9
Prop In Lane	1.00		0.26	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	146	146	146	1059	0	475	60	1281	584	207	790	820
V/C Ratio(X)	0.23	0.58	0.60	0.92	0.00	0.85	0.77	0.67	1.34	1.05	0.50	0.50
Avail Cap(c_a), veh/h	371	372	372	1105	0	496	124	1281	584	207	790	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	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	56.2	57.9	58.0	44.8	0.0	43.5	63.0	35.1	41.7	58.2	25.9	25.9
Incr Delay (d2), s/veh	0.8	3.6	3.9	12.4	0.0	12.9	18.5	1.6	165.1	77.7	0.7	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	3.2	18.9	0.0	15.4	2.0	13.5	47.8	11.9	10.3	10.7
LnGrp Delay(d),s/veh	57.0	61.6	62.0	57.2	0.0	56.4	81.5	36.6	206.7	135.9	26.6	26.5
LnGrp LOS	E	E	E	E		E	F	D	F	F	C	C
Approach Vol, veh/h		207			1382			1692			1022	
Approach Delay, s/veh		61.0			56.9			116.6			49.9	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.0	53.0		16.0	8.3	63.7		43.3
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	15.0	48.0		28.0	9.0	54.0		40.5
Max Q Clear Time (g_c+I1), s	17.0	50.0		8.4	5.3	22.9		36.7
Green Ext Time (p_c), s	0.0	0.0		1.0	0.0	25.2		2.1

Intersection Summary			
HCM 2010 Ctrl Delay		78.9	
HCM 2010 LOS		E	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	945	14	36	1168	523	49	19	11	531	19	280
Future Volume (veh/h)	259	945	14	36	1168	523	49	19	11	531	19	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1881	1900	1845	1881	1776	1900	1900	1900	1863	1865	1900
Adj Flow Rate, veh/h	270	984	15	38	1217	0	51	20	11	567	0	292
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	1	1	3	1	7	0	0	0	2	0	0
Cap, veh/h	293	1724	26	48	1228	518	124	79	43	832	0	377
Arrive On Green	0.16	0.48	0.48	0.03	0.34	0.00	0.07	0.07	0.07	0.23	0.00	0.23
Sat Flow, veh/h	1810	3604	55	1757	3574	1509	1810	1146	630	3548	0	1607
Grp Volume(v), veh/h	270	488	511	38	1217	0	51	0	31	567	0	292
Grp Sat Flow(s),veh/h/ln	1810	1787	1872	1757	1787	1509	1810	0	1776	1774	0	1607
Q Serve(g_s), s	15.0	20.0	20.0	2.2	34.5	0.0	2.8	0.0	1.7	14.8	0.0	17.3
Cycle Q Clear(g_c), s	15.0	20.0	20.0	2.2	34.5	0.0	2.8	0.0	1.7	14.8	0.0	17.3
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	293	855	895	48	1228	518	124	0	122	832	0	377
V/C Ratio(X)	0.92	0.57	0.57	0.80	0.99	0.00	0.41	0.00	0.25	0.68	0.00	0.77
Avail Cap(c_a), veh/h	293	855	895	116	1228	518	124	0	122	1114	0	505
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	19.1	19.1	49.3	33.3	0.0	45.5	0.0	45.0	35.5	0.0	36.5
Incr Delay (d2), s/veh	32.8	2.3	2.2	25.0	23.6	0.0	9.7	0.0	5.0	1.5	0.0	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	10.2	10.3	10.8	1.4	20.9	0.0	1.7	0.0	1.0	7.4	0.0	8.4
LnGrp Delay(d),s/veh	74.9	21.3	21.2	74.3	56.9	0.0	55.2	0.0	49.9	37.0	0.0	42.9
LnGrp LOS	E	C	C	E	E		E		D	D		D
Approach Vol, veh/h		1269			1255			82			859	
Approach Delay, s/veh		32.7			57.5			53.2			39.0	
Approach LOS		C			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.0	7.3	53.7		28.9	21.0	40.0
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		7.0	6.7	44.8		32.0	16.5	35.0
Max Q Clear Time (g_c+I1), s		4.8	4.2	22.0		19.3	17.0	36.5
Green Ext Time (p_c), s		0.0	0.0	21.9		4.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	978	529	577	1464	0	0	0	0	46	3	324
Future Volume (veh/h)	0	978	529	577	1464	0	0	0	0	46	3	324
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1881	1863	1863	1827	0				1900	1863	1900
Adj Flow Rate, veh/h	0	1029	557	607	1541	0				48	3	341
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	1	2	2	4	0				0	0	0
Cap, veh/h	0	1022	451	596	2353	0				416	3	362
Arrive On Green	0.00	0.29	0.29	0.34	0.68	0.00				0.23	0.23	0.23
Sat Flow, veh/h	0	3668	1578	1774	3563	0				1810	14	1572
Grp Volume(v), veh/h	0	1029	557	607	1541	0				48	0	344
Grp Sat Flow(s),veh/h/ln	0	1787	1578	1774	1736	0				1810	0	1586
Q Serve(g_s), s	0.0	28.6	28.6	33.6	25.7	0.0				2.1	0.0	21.3
Cycle Q Clear(g_c), s	0.0	28.6	28.6	33.6	25.7	0.0				2.1	0.0	21.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1022	451	596	2353	0				416	0	365
V/C Ratio(X)	0.00	1.01	1.23	1.02	0.65	0.00				0.12	0.00	0.94
Avail Cap(c_a), veh/h	0	1022	451	596	2353	0				416	0	365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.76	0.76	0.13	0.13	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	35.7	35.7	33.2	9.3	0.0				30.5	0.0	37.9
Incr Delay (d2), s/veh	0.0	26.1	119.3	18.3	0.2	0.0				0.0	0.0	32.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.8	27.4	19.4	12.3	0.0				1.1	0.0	12.6
LnGrp Delay(d),s/veh	0.0	61.8	155.0	51.5	9.5	0.0				30.5	0.0	70.2
LnGrp LOS		F	F	F	A					C		E
Approach Vol, veh/h		1586			2148						392	
Approach Delay, s/veh		94.6			21.4						65.4	
Approach LOS		F			C						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	39.2	33.7		27.1		72.9		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	33.6	28.6		23.0		67.8		
Max Q Clear Time (g_c+I1), s	35.6	30.6		23.3		27.7		
Green Ext Time (p_c), s	0.0	0.0		0.0		24.5		

Intersection Summary	
HCM 2010 Ctrl Delay	53.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	219	805	0	0	1437	101	604	4	580	0	0	0
Future Volume (veh/h)	219	805	0	0	1437	101	604	4	580	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1881	0	0	1881	1900	1810	1837	1863			
Adj Flow Rate, veh/h	238	875	0	0	1562	110	855	0	421			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	1	0	0	1	1	5	0	2			
Cap, veh/h	250	2329	0	0	1632	114	951	0	437			
Arrive On Green	0.14	0.65	0.00	0.00	0.48	0.48	0.28	0.00	0.28			
Sat Flow, veh/h	1774	3668	0	0	3483	237	3447	0	1583			
Grp Volume(v), veh/h	238	875	0	0	819	853	855	0	421			
Grp Sat Flow(s),veh/h/ln	1774	1787	0	0	1787	1839	1723	0	1583			
Q Serve(g_s), s	16.0	13.6	0.0	0.0	52.6	53.8	28.7	0.0	31.5			
Cycle Q Clear(g_c), s	16.0	13.6	0.0	0.0	52.6	53.8	28.7	0.0	31.5			
Prop In Lane	1.00		0.00	0.00		0.13	1.00		1.00			
Lane Grp Cap(c), veh/h	250	2329	0	0	861	886	951	0	437			
V/C Ratio(X)	0.95	0.38	0.00	0.00	0.95	0.96	0.90	0.00	0.96			
Avail Cap(c_a), veh/h	250	2329	0	0	861	886	951	0	437			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.17	0.17	0.00	0.00	0.72	0.72	1.00	0.00	1.00			
Uniform Delay (d), s/veh	51.2	9.6	0.0	0.0	29.8	30.1	41.8	0.0	42.9			
Incr Delay (d2), s/veh	13.5	0.1	0.0	0.0	16.8	18.2	11.6	0.0	33.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.7	6.7	0.0	0.0	29.7	31.7	15.2	0.0	17.9			
LnGrp Delay(d),s/veh	64.7	9.7	0.0	0.0	46.5	48.2	53.4	0.0	76.8			
LnGrp LOS	E	A			D	D	D		E			
Approach Vol, veh/h		1113			1672			1276				
Approach Delay, s/veh		21.5			47.4			61.1				
Approach LOS		C			D			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		82.8			20.4	62.4		37.2
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		78.2			16.9	57.8		33.1
Max Q Clear Time (g_c+I1), s		15.6			18.0	55.8		33.5
Green Ext Time (p_c), s		23.9			0.0	1.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1257	116	20	1452	0	86	0	19	0	0	0
Future Volume (veh/h)	52	1257	116	20	1452	0	86	0	19	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1861	1900	1900	1863	0	1827	0	1810			
Adj Flow Rate, veh/h	57	1381	127	22	1596	0	95	0	21			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	2	2	0	2	0	4	0	5			
Cap, veh/h	111	2217	203	37	2256	0	135	0	119			
Arrive On Green	0.06	0.68	0.68	0.02	0.64	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	1810	3269	299	1810	3632	0	1740	0	1538			
Grp Volume(v), veh/h	57	744	764	22	1596	0	95	0	21			
Grp Sat Flow(s),veh/h/ln	1810	1768	1800	1810	1770	0	1740	0	1538			
Q Serve(g_s), s	1.8	14.1	14.3	0.7	18.0	0.0	3.2	0.0	0.8			
Cycle Q Clear(g_c), s	1.8	14.1	14.3	0.7	18.0	0.0	3.2	0.0	0.8			
Prop In Lane	1.00		0.17	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	111	1199	1221	37	2256	0	135	0	119			
V/C Ratio(X)	0.51	0.62	0.63	0.59	0.71	0.00	0.70	0.00	0.18			
Avail Cap(c_a), veh/h	180	1199	1221	165	2317	0	606	0	535			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	27.5	5.4	5.4	29.3	7.2	0.0	27.2	0.0	26.0			
Incr Delay (d2), s/veh	3.7	1.7	1.7	14.3	1.4	0.0	6.6	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			
%ile BackOfQ(50%),veh/ln	1.0	7.2	7.6	0.5	9.1	0.0	1.8	0.0	0.3			
LnGrp Delay(d),s/veh	31.1	7.1	7.1	43.6	8.6	0.0	33.7	0.0	26.7			
LnGrp LOS	C	A	A	D	A		C		C			
Approach Vol, veh/h		1565			1618			116				
Approach Delay, s/veh		8.0			9.1			32.4				
Approach LOS		A			A			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	5.2	45.9			7.7	43.5		9.2
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.5	40.0			6.0	39.5		21.0
Max Q Clear Time (g_c+I1), s	2.7	16.3			3.8	20.0		5.2
Green Ext Time (p_c), s	0.0	23.5			0.0	18.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	9.4
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	1764	1609	2
Future Vol, veh/h	0	20	5	1764	1609	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	-	-	135	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	1819	1659	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	830	1661	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.35	2.2	-	-	-
Pot Cap-1 Maneuver	0	307	393	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	307	393	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	393	-	307	-	-
HCM Lane V/C Ratio	0.013	-	0.067	-	-
HCM Control Delay (s)	14.3	-	17.6	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	98	102	139	414	312	104
Future Vol, veh/h	98	102	139	414	312	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	370	-	220	-	-	-
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	107	111	151	450	339	113

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	923	226	452	0	-	0
Stage 1	396	-	-	-	-	-
Stage 2	527	-	-	-	-	-
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	269	777	1105	-	-	-
Stage 1	649	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	232	777	1105	-	-	-
Mov Cap-2 Maneuver	232	-	-	-	-	-
Stage 1	649	-	-	-	-	-
Stage 2	481	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.5	2.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1105	-	232	777	-	-
HCM Lane V/C Ratio	0.137	-	0.459	0.143	-	-
HCM Control Delay (s)	8.8	-	33	10.4	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.5	-	2.2	0.5	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	934	139	18	933	39	122	3	23	68	10	349
Future Volume (veh/h)	179	934	139	18	933	39	122	3	23	68	10	349
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	195	1015	151	20	1014	42	133	3	25	0	0	466
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	1372	204	83	1286	53	184	18	149	0	270	459
Arrive On Green	0.13	0.44	0.44	0.05	0.37	0.37	0.10	0.10	0.10	0.00	0.00	0.14
Sat Flow, veh/h	1774	3092	460	1774	3464	143	1774	172	1437	0	1863	3167
Grp Volume(v), veh/h	195	581	585	20	518	538	133	0	28	0	0	466
Grp Sat Flow(s),veh/h/ln	1774	1770	1782	1774	1770	1837	1774	0	1609	0	1863	1583
Q Serve(g_s), s	7.4	18.8	18.8	0.8	18.0	18.0	5.0	0.0	1.1	0.0	0.0	10.0
Cycle Q Clear(g_c), s	7.4	18.8	18.8	0.8	18.0	18.0	5.0	0.0	1.1	0.0	0.0	10.0
Prop In Lane	1.00		0.26	1.00		0.08	1.00		0.89	0.00		1.00
Lane Grp Cap(c), veh/h	238	785	790	83	657	682	184	0	167	0	270	459
V/C Ratio(X)	0.82	0.74	0.74	0.24	0.79	0.79	0.72	0.00	0.17	0.00	0.00	1.02
Avail Cap(c_a), veh/h	283	846	852	128	692	719	771	0	699	0	270	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	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	29.1	15.9	15.9	31.7	19.3	19.3	30.0	0.0	28.2	0.0	0.0	29.5
Incr Delay (d2), s/veh	15.0	5.4	5.4	1.5	8.4	8.1	5.3	0.0	0.5	0.0	0.0	46.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	10.2	10.3	0.4	10.3	10.6	2.7	0.0	0.5	0.0	0.0	7.3
LnGrp Delay(d),s/veh	44.1	21.3	21.3	33.2	27.7	27.4	35.3	0.0	28.7	0.0	0.0	75.7
LnGrp LOS	D	C	C	C	C	C	D		C			F
Approach Vol, veh/h		1361			1076			161			466	
Approach Delay, s/veh		24.6			27.6			34.1			75.7	
Approach LOS		C			C			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.2	35.6		11.2	13.2	30.6		14.0
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 33		30.0	11.0	27.0		10.0
Max Q Clear Time (g_c+I1), s	2.8	20.8		7.0	9.4	20.0		12.0
Green Ext Time (p_c), s	1.9	9.8		0.5	0.1	5.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.9
HCM 2010 LOS	C

Notes

Intersection	
Intersection Delay, s/veh	79.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	291	374	128	251	0	582	0	167	0	0	0
Future Vol, veh/h	1	291	374	128	251	0	582	0	167	0	0	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	7	3	7	6	0	5	0	4	0	0	0
Mvmt Flow	1	303	390	133	261	0	606	0	174	0	0	0
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	26.7	20.2	156.3	0
HCM LOS	D	C	F	-

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	582	167	292	374	128	251	0
LT Vol	582	0	1	0	128	0	0
Through Vol	0	0	291	0	0	251	0
RT Vol	0	167	0	374	0	0	0
Lane Flow Rate	606	174	304	390	133	261	0
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	1.356	0.326	0.627	0.74	0.311	0.572	0
Departure Headway (Hd)	8.054	6.742	8.228	7.623	9.228	8.689	9.907
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	534	441	479	392	418	0
Service Time	5.798	4.485	5.928	5.323	6.928	6.389	7.907
HCM Lane V/C Ratio	1.332	0.326	0.689	0.814	0.339	0.624	0
HCM Control Delay	197.5	12.7	23.8	29	16	22.4	12.9
HCM Lane LOS	F	B	C	D	C	C	N
HCM 95th-tile Q	27.9	1.4	4.2	6.1	1.3	3.5	0

Intersection	
Int Delay, s/veh	4.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	81	1107	16	106	654
Future Vol, veh/h	14	81	1107	16	106	654
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	2	0	2	5
Mvmt Flow	15	87	1190	17	114	703

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2130	1199	0	0	1208	0
Stage 1	1199	-	-	-	-	-
Stage 2	931	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	55	228	-	-	578	-
Stage 1	288	-	-	-	-	-
Stage 2	387	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	44	228	-	-	578	-
Mov Cap-2 Maneuver	44	-	-	-	-	-
Stage 1	288	-	-	-	-	-
Stage 2	311	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	78.8	0	1.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	141	578	-
HCM Lane V/C Ratio	-	-	0.724	0.197	-
HCM Control Delay (s)	-	-	78.8	12.8	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	4.2	0.7	-

Intersection	
Int Delay, s/veh	10

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	2	3	52	1	5	9	1114	86	2	668	1
Future Vol, veh/h	2	2	3	52	1	5	9	1114	86	2	668	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	-	-	30	-	-	30	105	-	210	105	-	-
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, %	0	0	0	0	0	0	0	2	1	0	5	0
Mvmt Flow	2	2	3	57	1	5	10	1211	93	2	726	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1962	1961	727	1962	1962	1211	727	0	0	1211	0	0
Stage 1	731	731	-	1230	1230	-	-	-	-	-	-	-
Stage 2	1231	1230	-	732	732	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	48	64	427	~ 48	64	224	886	-	-	583	-	-
Stage 1	416	430	-	219	252	-	-	-	-	-	-	-
Stage 2	219	252	-	416	430	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	46	63	427	~ 46	63	224	886	-	-	583	-	-
Mov Cap-2 Maneuver	46	63	-	~ 46	63	-	-	-	-	-	-	-
Stage 1	411	429	-	217	249	-	-	-	-	-	-	-
Stage 2	210	249	-	409	429	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	50.9	$ 328.6	0.1	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	886	-	-	53	427	46	224	583	-	-
HCM Lane V/C Ratio	0.011	-	-	0.082	0.008	1.252	0.024	0.004	-	-
HCM Control Delay (s)	9.1	-	-	78.9	13.5	$ 357.6	21.5	11.2	-	-
HCM Lane LOS	A	-	-	F	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	5.4	0.1	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	87	28	97	59	21	11	107	244	88	7	166	79
Future Vol, veh/h	87	28	97	59	21	11	107	244	88	7	166	79
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	5	0	5	0	5	0	4	2	1	0	5	4
Mvmt Flow	98	31	109	66	24	12	120	274	99	8	187	89
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	12.6	13.2	19.8	13.1
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	76%	0%	65%	100%	0%	0%
Vol Thru, %	0%	73%	24%	0%	23%	0%	100%	0%
Vol Right, %	0%	27%	0%	100%	12%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	107	332	115	97	91	7	166	79
LT Vol	107	0	87	0	59	7	0	0
Through Vol	0	244	28	0	21	0	166	0
RT Vol	0	88	0	97	11	0	0	79
Lane Flow Rate	120	373	129	109	102	8	187	89
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.244	0.68	0.284	0.204	0.229	0.017	0.378	0.162
Departure Headway (Hd)	7.294	6.56	7.903	6.722	8.058	7.714	7.29	6.558
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	493	552	455	534	446	464	494	547
Service Time	5.031	4.297	5.647	4.465	5.809	5.458	5.034	4.302
HCM Lane V/C Ratio	0.243	0.676	0.284	0.204	0.229	0.017	0.379	0.163
HCM Control Delay	12.4	22.2	13.8	11.2	13.2	10.6	14.4	10.6
HCM Lane LOS	B	C	B	B	B	B	B	B
HCM 95th-tile Q	0.9	5.2	1.2	0.8	0.9	0.1	1.7	0.6

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	28	458	329	1
Future Vol, veh/h	0	11	28	458	329	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	4	2	3	0
Mvmt Flow	0	13	33	533	383	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	981	383	384	0	-	0
Stage 1	383	-	-	-	-	-
Stage 2	598	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	279	669	1164	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	271	669	1164	-	-	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	537	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1164	-	669	-	-
HCM Lane V/C Ratio	0.028	-	0.019	-	-
HCM Control Delay (s)	8.2	-	10.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	8.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	193	293	57	133	207
Future Vol, veh/h	74	193	293	57	133	207
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	10	2	1	7	5	1
Mvmt Flow	84	219	333	65	151	235

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	903	365	0	0	398	0
Stage 1	365	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Critical Hdwy	6.5	6.22	-	-	4.15	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.318	-	-	2.245	-
Pot Cap-1 Maneuver	298	680	-	-	1144	-
Stage 1	685	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	259	680	-	-	1144	-
Mov Cap-2 Maneuver	259	-	-	-	-	-
Stage 1	685	-	-	-	-	-
Stage 2	495	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.7	0	3.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	469	1144	-
HCM Lane V/C Ratio	-	-	0.647	0.132	-
HCM Control Delay (s)	-	-	25.7	8.6	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	4.5	0.5	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	9	359	7	5	279
Future Vol, veh/h	40	9	359	7	5	279
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	43	10	382	7	5	297

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	693	386	0	0	389	0
Stage 1	386	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	412	666	-	-	1181	-
Stage 1	691	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	410	666	-	-	1181	-
Mov Cap-2 Maneuver	410	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	410	666	1181	-
HCM Lane V/C Ratio	-	-	0.104	0.014	0.005	-
HCM Control Delay (s)	-	-	14.8	10.5	8.1	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	38	0	8	0	358	44	8	311	0
Future Vol, veh/h	0	0	0	38	0	8	0	358	44	8	311	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	3	0	0	0	2	0	0	3	0
Mvmt Flow	0	0	0	42	0	9	0	393	48	9	342	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	781	801	342	777	777	418	342	0	0	442	0	0
Stage 1	359	359	-	418	418	-	-	-	-	-	-	-
Stage 2	422	442	-	359	359	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	315	320	705	313	330	639	1228	-	-	1129	-	-
Stage 1	663	631	-	610	594	-	-	-	-	-	-	-
Stage 2	613	580	-	657	631	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	309	317	705	311	327	639	1228	-	-	1129	-	-
Mov Cap-2 Maneuver	309	317	-	311	327	-	-	-	-	-	-	-
Stage 1	663	626	-	610	594	-	-	-	-	-	-	-
Stage 2	605	580	-	652	626	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	17.4	0	0.2
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1228	-	-	-	341	1129	-	-
HCM Lane V/C Ratio	-	-	-	-	0.148	0.008	-	-
HCM Control Delay (s)	0	-	-	0	17.4	8.2	-	-
HCM Lane LOS	A	-	-	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	159	42	360	160	38	311
Future Vol, veh/h	159	42	360	160	38	311
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	181	48	409	182	43	353

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	940	500	0	0	591	0
Stage 1	500	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	295	575	-	-	995	-
Stage 1	613	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	282	575	-	-	995	-
Mov Cap-2 Maneuver	411	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	625	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.7	0	1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	411	575	995	-
HCM Lane V/C Ratio	-	-	0.44	0.083	0.043	-
HCM Control Delay (s)	-	-	20.5	11.8	8.8	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	2.2	0.3	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	37	31	490	451	3
Future Vol, veh/h	3	37	31	490	451	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	3	4	2	3	0
Mvmt Flow	3	42	35	551	507	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1128	508	510	0	-	0
Stage 1	508	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.236	-	-	-
Pot Cap-1 Maneuver	228	563	1045	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	220	563	1045	-	-	-
Mov Cap-2 Maneuver	356	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	522	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1045	-	539	-	-
HCM Lane V/C Ratio	0.033	-	0.083	-	-
HCM Control Delay (s)	8.6	-	12.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	145	1	1	15	224	896	5	3	916	12
Future Vol, veh/h	0	0	145	1	1	15	224	896	5	3	916	12
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	7	4	3	0	33	1	0
Mvmt Flow	0	0	153	1	1	16	236	943	5	3	964	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	964	2388	2388	946	964	0	0	948	0	0
Stage 1	-	-	-	1417	1417	-	-	-	-	-	-	-
Stage 2	-	-	-	971	971	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.21	7.1	6.5	6.27	4.14	-	-	4.43	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.309	3.5	4	3.363	2.236	-	-	2.497	-	-
Pot Cap-1 Maneuver	0	0	311	24	34	310	706	-	-	613	-	-
Stage 1	0	0	-	172	205	-	-	-	-	-	-	-
Stage 2	0	0	-	307	334	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	311	9	23	310	706	-	-	613	-	-
Mov Cap-2 Maneuver	-	-	-	9	23	-	-	-	-	-	-	-
Stage 1	-	-	-	115	136	-	-	-	-	-	-	-
Stage 2	-	-	-	156	332	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.2	59.1	2.5	0
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	706	-	-	311	84	613	-	-
HCM Lane V/C Ratio	0.334	-	-	0.491	0.213	0.005	-	-
HCM Control Delay (s)	12.6	-	-	27.2	59.1	10.9	-	-
HCM Lane LOS	B	-	-	D	F	B	-	-
HCM 95th %tile Q(veh)	1.5	-	-	2.6	0.7	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	49	276	197	71	22	269	318	159	22	337	41
Future Volume (veh/h)	55	49	276	197	71	22	269	318	159	22	337	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1667	1827	1881	1810	1900	1863	1863	1845	1900	1855	1900
Adj Flow Rate, veh/h	68	60	341	243	88	27	332	393	196	27	416	51
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	8	14	4	1	5	5	2	2	3	0	2	2
Cap, veh/h	425	423	385	314	232	71	317	654	542	33	580	71
Arrive On Green	0.25	0.25	0.25	0.18	0.18	0.18	0.18	0.35	0.35	0.02	0.18	0.18
Sat Flow, veh/h	1675	1667	1519	1792	1325	406	1774	1863	1543	1810	3143	382
Grp Volume(v), veh/h	68	60	341	243	0	115	332	393	196	27	232	235
Grp Sat Flow(s),veh/h/ln	1675	1667	1519	1792	0	1731	1774	1863	1543	1810	1762	1763
Q Serve(g_s), s	2.7	2.4	18.7	11.2	0.0	5.1	15.5	15.1	8.2	1.3	10.7	10.9
Cycle Q Clear(g_c), s	2.7	2.4	18.7	11.2	0.0	5.1	15.5	15.1	8.2	1.3	10.7	10.9
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	425	423	385	314	0	304	317	654	542	33	325	326
V/C Ratio(X)	0.16	0.14	0.88	0.77	0.00	0.38	1.05	0.60	0.36	0.82	0.71	0.72
Avail Cap(c_a), veh/h	541	538	490	578	0	559	317	719	596	63	416	417
HCM Platoon Ratio	1.00	1.00	1.00	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	25.2	25.1	31.1	34.1	0.0	31.6	35.6	23.2	20.9	42.5	33.2	33.3
Incr Delay (d2), s/veh	0.1	0.1	12.7	1.5	0.0	0.3	63.5	0.7	0.2	16.8	2.5	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	1.3	1.1	9.2	5.7	0.0	2.5	13.1	7.9	3.5	0.8	5.4	5.5
LnGrp Delay(d),s/veh	25.2	25.1	43.8	35.7	0.0	31.9	99.2	23.8	21.1	59.3	35.7	36.1
LnGrp LOS	C	C	D	D		C	F	C	C	E	D	D
Approach Vol, veh/h		469			358			921			494	
Approach Delay, s/veh		38.7			34.5			50.4			37.2	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.6	36.0		26.0	20.0	21.5		19.2
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	3.0	33.5		28.0	15.5	20.5		28.0
Max Q Clear Time (g_c+I1), s	3.3	17.1		20.7	17.5	12.9		13.2
Green Ext Time (p_c), s	0.0	3.6		0.7	0.0	2.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	42.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	14	9	78	24	260	15	559	86	313	658	8
Future Volume (veh/h)	9	14	9	78	24	260	15	559	86	313	658	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1845	1900	1881	1845	1863	1845	1900
Adj Flow Rate, veh/h	10	16	10	89	27	295	17	635	98	356	748	9
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	3	0	1	3	2	3	3
Cap, veh/h	117	166	83	296	78	645	22	773	638	404	1140	14
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.41	0.41	0.23	0.63	0.63
Sat Flow, veh/h	267	898	448	1099	425	1559	1810	1881	1553	1774	1819	22
Grp Volume(v), veh/h	36	0	0	116	0	295	17	635	98	356	0	757
Grp Sat Flow(s),veh/h/ln	1612	0	0	1524	0	1559	1810	1881	1553	1774	0	1841
Q Serve(g_s), s	0.0	0.0	0.0	3.2	0.0	9.3	0.6	20.4	2.7	13.2	0.0	17.7
Cycle Q Clear(g_c), s	1.1	0.0	0.0	4.4	0.0	9.3	0.6	20.4	2.7	13.2	0.0	17.7
Prop In Lane	0.28		0.28	0.77		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	365	0	0	375	0	645	22	773	638	404	0	1154
V/C Ratio(X)	0.10	0.00	0.00	0.31	0.00	0.46	0.78	0.82	0.15	0.88	0.00	0.66
Avail Cap(c_a), veh/h	497	0	0	506	0	782	146	844	697	496	0	1192
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	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	0.0	24.3	0.0	14.5	33.5	17.8	12.6	25.3	0.0	8.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	0.5	19.1	6.1	0.1	13.7	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	0.6	0.0	0.0	1.9	0.0	4.1	0.4	11.9	1.2	8.0	0.0	9.2
LnGrp Delay(d),s/veh	23.2	0.0	0.0	24.7	0.0	15.0	52.6	23.9	12.7	39.1	0.0	9.3
LnGrp LOS	C			C		B	D	C	B	D		A
Approach Vol, veh/h		36			411			750			1113	
Approach Delay, s/veh		23.2			17.7			23.1			18.8	
Approach LOS		C			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.5	31.9		16.5	4.8	46.6		16.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	19.0	30.5		18.5	5.5	44.0		18.5
Max Q Clear Time (g_c+I1), s	15.2	22.4		3.1	2.6	19.7		11.3
Green Ext Time (p_c), s	0.3	5.5		1.7	0.0	11.6		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	46	58	64	52	43	137	324	84	30	134	314
Future Volume (veh/h)	53	46	58	64	52	43	137	324	84	30	134	314
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1843	1810	1845	1859	1900	1881	1870	1900	1845	1827	1881
Adj Flow Rate, veh/h	60	52	65	72	58	48	154	364	94	34	151	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	5	3	4	4	1	2	2	3	4	1
Cap, veh/h	132	114	211	242	130	107	201	819	209	70	402	352
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	0.29	0.29	0.04	0.22	0.00
Sat Flow, veh/h	962	834	1538	1757	942	780	1792	2805	716	1757	1827	1599
Grp Volume(v), veh/h	112	0	65	72	0	106	154	229	229	34	151	0
Grp Sat Flow(s),veh/h/ln	1795	0	1538	1757	0	1722	1792	1777	1744	1757	1827	1599
Q Serve(g_s), s	2.1	0.0	1.4	1.3	0.0	2.1	3.0	3.8	3.9	0.7	2.6	0.0
Cycle Q Clear(g_c), s	2.1	0.0	1.4	1.3	0.0	2.1	3.0	3.8	3.9	0.7	2.6	0.0
Prop In Lane	0.54		1.00	1.00		0.45	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	247	0	211	242	0	237	201	519	509	70	402	352
V/C Ratio(X)	0.45	0.00	0.31	0.30	0.00	0.45	0.77	0.44	0.45	0.48	0.38	0.00
Avail Cap(c_a), veh/h	1258	0	1078	888	0	871	960	1724	1692	314	1120	980
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	14.4	0.0	14.1	14.1	0.0	14.4	15.7	10.5	10.5	17.1	12.1	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.3	0.3	0.0	0.5	2.3	0.3	0.3	1.9	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	1.1	0.0	0.6	0.7	0.0	1.0	1.6	1.9	1.9	0.4	1.3	0.0
LnGrp Delay(d),s/veh	14.9	0.0	14.4	14.4	0.0	14.9	18.0	10.8	10.8	19.0	12.4	0.0
LnGrp LOS	B		B	B		B	B	B	B	B	B	
Approach Vol, veh/h		177			178			612			185	
Approach Delay, s/veh		14.7			14.7			12.6			13.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	14.3		8.5	7.1	11.7		9.1
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	6.5	35.3		25.5	19.5	22.3		18.4
Max Q Clear Time (g_c+I1), s	2.7	5.9		4.1	5.0	4.6		4.1
Green Ext Time (p_c), s	0.0	2.7		0.4	0.1	2.5		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	13.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	130	304	241	59	80	176
Future Vol, veh/h	130	304	241	59	80	176
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	91	91	91	91	91	91
Heavy Vehicles, %	3	1	2	2	4	5
Mvmt Flow	143	334	265	65	88	193

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	634	265	0	0	265	0
Stage 1	265	-	-	-	-	-
Stage 2	369	-	-	-	-	-
Critical Hdwy	6.43	6.21	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.309	-	-	2.236	-
Pot Cap-1 Maneuver	442	776	-	-	1287	-
Stage 1	777	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	408	776	-	-	1287	-
Mov Cap-2 Maneuver	408	-	-	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	643	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.7	0	2.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	611	1287	-
HCM Lane V/C Ratio	-	-	0.781	0.068	-
HCM Control Delay (s)	-	-	28.7	8	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	7.4	0.2	-

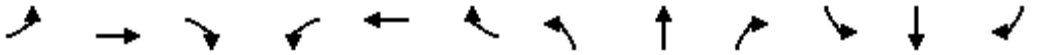
Intersection	
Int Delay, s/veh	7.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	112	130	93	123	116	135
Future Vol, veh/h	112	130	93	123	116	135
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	86	86	86	86	86	86
Heavy Vehicles, %	4	4	2	7	5	3
Mvmt Flow	130	151	108	143	135	157

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	281	0	565	206
Stage 1	-	-	-	-	206	-
Stage 2	-	-	-	-	359	-
Critical Hdwy	-	-	4.12	-	6.45	6.23
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.327
Pot Cap-1 Maneuver	-	-	1282	-	481	832
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	700	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1282	-	437	832
Mov Cap-2 Maneuver	-	-	-	-	437	-
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	636	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.5	17
HCM LOS			C

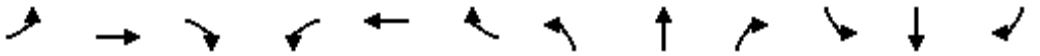
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	587	-	-	1282	-
HCM Lane V/C Ratio	0.497	-	-	0.084	-
HCM Control Delay (s)	17	-	-	8.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.8	-	-	0.3	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	215	136	506	192	24	141	769	474	29	762	123
Future Volume (veh/h)	139	215	136	506	192	24	141	769	474	29	762	123
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1881	1845	1881	1863	1900	1792	1827	1863	1900	1863	1845
Adj Flow Rate, veh/h	148	229	145	538	204	26	150	818	504	31	811	131
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	1	3	1	2	0	6	4	2	0	2	3
Cap, veh/h	184	367	306	598	489	418	174	1240	838	45	992	603
Arrive On Green	0.10	0.19	0.19	0.17	0.26	0.26	0.10	0.36	0.36	0.02	0.28	0.28
Sat Flow, veh/h	1757	1881	1568	3476	1863	1594	1707	3471	1583	1810	3539	1568
Grp Volume(v), veh/h	148	229	145	538	204	26	150	818	504	31	811	131
Grp Sat Flow(s),veh/h/ln	1757	1881	1568	1738	1863	1594	1707	1736	1583	1810	1770	1568
Q Serve(g_s), s	6.6	8.9	6.5	12.1	7.2	1.0	6.9	15.8	17.5	1.4	17.0	4.5
Cycle Q Clear(g_c), s	6.6	8.9	6.5	12.1	7.2	1.0	6.9	15.8	17.5	1.4	17.0	4.5
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	184	367	306	598	489	418	174	1240	838	45	992	603
V/C Ratio(X)	0.81	0.62	0.47	0.90	0.42	0.06	0.86	0.66	0.60	0.69	0.82	0.22
Avail Cap(c_a), veh/h	245	567	472	598	622	532	174	1240	838	114	1075	640
HCM Platoon Ratio	1.00	1.00	1.00	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	34.9	29.4	28.4	32.3	24.3	22.0	35.2	21.5	13.0	38.5	26.8	16.4
Incr Delay (d2), s/veh	13.5	3.7	2.4	16.7	1.2	0.1	33.6	1.8	1.8	16.9	5.6	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	3.9	5.0	3.0	7.1	3.8	0.4	4.9	7.8	8.1	0.9	9.1	2.0
LnGrp Delay(d),s/veh	48.4	33.1	30.9	49.0	25.5	22.2	68.8	23.3	14.8	55.5	32.3	16.8
LnGrp LOS	D	C	C	D	C	C	E	C	B	E	C	B
Approach Vol, veh/h		522			768			1472			973	
Approach Delay, s/veh		36.8			41.9			25.0			31.0	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	34.0	18.2	21.0	12.6	27.8	12.8	26.4
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	27.3	13.7	24.0	8.1	24.2	11.1	26.6
Max Q Clear Time (g_c+I1), s	3.4	19.5	14.1	10.9	8.9	19.0	8.6	9.2
Green Ext Time (p_c), s	0.0	7.4	0.0	4.6	0.0	3.3	0.1	5.5

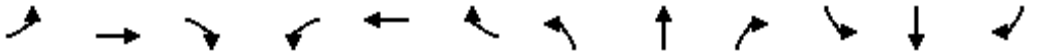
Intersection Summary	
HCM 2010 Ctrl Delay	31.7
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	69	215	0	66	0	1307	182	86	1317	0
Future Volume (vph)	0	0	69	215	0	66	0	1307	182	86	1317	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes			0.99	1.00		1.00		1.00		1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00		1.00	1.00	
Frt			0.86	1.00		0.85		0.98		1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)			1603	1800		1455		3449		1752	3539	
Flt Permitted			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (perm)			1603	1800		1455		3449		1752	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	72	224	0	69	0	1361	190	90	1372	0
RTOR Reduction (vph)	0	0	57	0	0	55	0	16	0	0	0	0
Lane Group Flow (vph)	0	0	15	224	0	14	0	1535	0	90	1372	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Perm		Perm		NA		Prot	NA	Perm
Protected Phases								6		5	2	
Permitted Phases			4	8		8						2
Actuated Green, G (s)			13.0	13.0		13.0		33.7		4.0	41.7	
Effective Green, g (s)			13.0	13.0		13.0		33.7		4.0	41.7	
Actuated g/C Ratio			0.20	0.20		0.20		0.52		0.06	0.65	
Clearance Time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Vehicle Extension (s)			3.0	4.0		4.0		4.0		0.5	4.0	
Lane Grp Cap (vph)			324	364		294		1810		109	2298	
v/s Ratio Prot								c0.45		c0.05	0.39	
v/s Ratio Perm			0.01	c0.12		0.01						
v/c Ratio			0.04	0.62		0.05		0.85		0.83	0.60	
Uniform Delay, d1			20.6	23.3		20.6		13.1		29.8	6.4	
Progression Factor			1.00	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2			0.1	3.5		0.1		4.1		36.2	0.5	
Delay (s)			20.7	26.8		20.7		17.1		65.9	6.9	
Level of Service			C	C		C		B		E	A	
Approach Delay (s)		20.7			25.4			17.1			10.6	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	64.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		

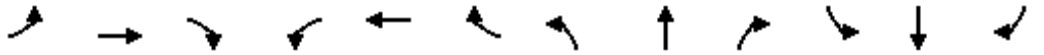
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	23	298	118	24	23	301	1284	98	64	1411	126
Future Volume (veh/h)	141	23	298	118	24	23	301	1284	98	64	1411	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1863	1881	1845	1863	1881
Adj Flow Rate, veh/h	147	24	310	123	25	24	314	1338	102	67	1470	131
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	1	3	2	1
Cap, veh/h	171	247	377	147	212	195	339	2115	955	86	1599	713
Arrive On Green	0.10	0.14	0.14	0.08	0.12	0.12	0.19	0.60	0.60	0.05	0.45	0.45
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	3539	1598	1757	3539	1577
Grp Volume(v), veh/h	147	24	310	123	25	24	314	1338	102	67	1470	131
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1770	1598	1757	1770	1577
Q Serve(g_s), s	10.5	1.5	13.7	8.7	1.6	1.7	22.4	30.9	3.5	4.8	49.2	6.3
Cycle Q Clear(g_c), s	10.5	1.5	13.7	8.7	1.6	1.7	22.4	30.9	3.5	4.8	49.2	6.3
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	171	247	377	147	212	195	339	2115	955	86	1599	713
V/C Ratio(X)	0.86	0.10	0.82	0.84	0.12	0.12	0.93	0.63	0.11	0.78	0.92	0.18
Avail Cap(c_a), veh/h	175	453	690	159	418	383	358	2115	955	170	1661	740
HCM Platoon Ratio	1.00	1.00	1.00	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	56.1	47.9	53.2	57.0	49.6	49.6	50.0	16.4	10.9	59.4	32.5	20.7
Incr Delay (d2), s/veh	31.7	0.2	4.5	28.9	0.2	0.3	29.1	0.9	0.1	14.2	9.0	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	6.6	0.7	5.5	5.4	0.8	0.8	13.5	15.3	1.6	2.6	25.9	2.8
LnGrp Delay(d),s/veh	87.8	48.0	57.7	85.9	49.8	49.9	79.1	17.3	11.0	73.6	41.4	21.0
LnGrp LOS	F	D	E	F	D	D	E	B	B	E	D	C
Approach Vol, veh/h		481			172			1754			1668	
Approach Delay, s/veh		66.4			75.7			28.0			41.1	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	80.5	14.6	21.1	28.6	62.1	16.4	19.2
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	12.2	73.1	11.4	31.3	26.0	59.3	12.7	30.0
Max Q Clear Time (g_c+I1), s	6.8	32.9	10.7	15.7	24.4	51.2	12.5	3.7
Green Ext Time (p_c), s	0.0	39.1	0.0	1.4	0.2	5.9	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	39.9
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	0	550	603	200	273	570	1186	418	0	1585	261
Future Volume (veh/h)	245	0	550	603	200	273	570	1186	418	0	1585	261
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1881	1863	1858	1776	1900	1863	1845	0	1810	1900
Adj Flow Rate, veh/h	255	0	573	628	265	246	594	1235	435	0	1651	272
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	1	2	1	7	0	2	3	0	5	0
Cap, veh/h	178	0	0	1103	331	269	376	3118	961	0	1845	603
Arrive On Green	0.10	0.00	0.00	0.31	0.18	0.18	0.28	0.82	0.82	0.00	0.37	0.37
Sat Flow, veh/h	1810	255		3548	1858	1509	1810	5085	1568	0	5103	1615
Grp Volume(v), veh/h	255	287.9		628	265	246	594	1235	435	0	1651	272
Grp Sat Flow(s),veh/h/ln	1810	F		1774	1858	1509	1810	1695	1568	0	1647	1615
Q Serve(g_s), s	14.4			21.6	20.0	23.4	30.3	9.7	11.8	0.0	45.9	18.5
Cycle Q Clear(g_c), s	14.4			21.6	20.0	23.4	30.3	9.7	11.8	0.0	45.9	18.5
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	178			1103	331	269	376	3118	961	0	1845	603
V/C Ratio(X)	1.43			0.57	0.80	0.92	1.58	0.40	0.45	0.00	0.89	0.45
Avail Cap(c_a), veh/h	178			1419	496	403	376	3118	961	0	1845	603
HCM Platoon Ratio	1.00			1.00	1.00	1.00	1.33	1.33	1.33	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	0.47	0.47
Uniform Delay (d), s/veh	65.8			42.1	57.5	58.9	52.9	6.1	6.3	0.0	43.0	34.5
Incr Delay (d2), s/veh	222.1			0.2	3.0	14.9	274.2	0.4	1.5	0.0	3.7	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
%ile BackOfQ(50%),veh/ln	18.2			10.7	10.5	10.9	43.7	4.5	5.4	0.0	21.4	8.5
LnGrp Delay(d),s/veh	287.9			42.3	60.6	73.8	327.1	6.5	7.8	0.0	46.7	35.6
LnGrp LOS	F			D	E	E	F	A	A		D	D
Approach Vol, veh/h					1139			2264			1923	
Approach Delay, s/veh					53.4			90.9			45.1	
Approach LOS					D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		95.7	50.3		35.0	60.7	19.0	31.3
Change Period (Y+Rc), s		6.2	4.9		* 4.7	6.2	4.6	5.3
Max Green Setting (Gmax), s		76.5	58.4		* 30	41.5	14.4	39.0
Max Q Clear Time (g_c+I1), s		13.8	23.6		32.3	47.9	16.4	25.4
Green Ext Time (p_c), s		16.9	0.5		0.0	0.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	76.5
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	611	362	160	238	0	539	0	1342	231	612	1125	356
Future Volume (veh/h)	611	362	160	238	0	539	0	1342	231	612	1125	356
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1827	1900	0	1900	0	1776	1900	1881	1845	1827
Adj Flow Rate, veh/h	630	373	165	245	0	556	0	1384	238	631	1160	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	4	0	0	0	0	7	0	1	3	4
Cap, veh/h	1027	441	193	258	0	0	0	1471	389	1197	2199	974
Arrive On Green	0.30	0.12	0.12	0.14	0.00	0.00	0.00	0.24	0.24	0.11	0.21	0.00
Sat Flow, veh/h	3442	3539	1553	1810	245		0	6357	1615	3476	3505	1553
Grp Volume(v), veh/h	630	373	165	245	104.2		0	1384	238	631	1160	0
Grp Sat Flow(s),veh/h/ln	1721	1770	1553	1810	F		0	1527	1615	1738	1752	1553
Q Serve(g_s), s	22.9	15.1	15.2	19.6			0.0	32.5	13.7	25.0	43.0	0.0
Cycle Q Clear(g_c), s	22.9	15.1	15.2	19.6			0.0	32.5	13.7	25.0	43.0	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1027	441	193	258			0	1471	389	1197	2199	974
V/C Ratio(X)	0.61	0.85	0.85	0.95			0.00	0.94	0.61	0.53	0.53	0.00
Avail Cap(c_a), veh/h	1027	1018	447	258			0	1489	394	1197	2199	974
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00			0.00	0.89	0.89	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.0	62.5	62.6	62.1			0.0	54.4	25.2	53.5	38.6	0.0
Incr Delay (d2), s/veh	1.0	1.8	4.1	42.1			0.0	11.9	6.2	0.2	0.9	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
%ile BackOfQ(50%),veh/ln	11.1	7.5	6.7	12.8			0.0	15.0	6.8	12.1	21.2	0.0
LnGrp Delay(d),s/veh	44.9	64.3	66.7	104.2			0.0	66.4	31.5	53.7	39.5	0.0
LnGrp LOS	D	E	E	F				E	C	D	D	
Approach Vol, veh/h		1168						1622			1791	
Approach Delay, s/veh		54.2						61.2			44.5	
Approach LOS		D						E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	56.5	41.3	25.4	22.8		97.8	48.2	
Change Period (Y+Rc), s	6.2	* 6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	27.6	* 36	20.8	42.0		67.8	36.3	
Max Q Clear Time (g_c+I1), s	27.0	34.5	21.6	17.2		45.0	24.9	
Green Ext Time (p_c), s	0.1	0.7	0.0	1.0		4.0	1.5	

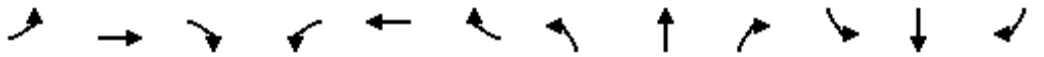
Intersection Summary	
HCM 2010 Ctrl Delay	55.5
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	0	73	90	0	178	77	1368	177	0	1293	143
Future Volume (veh/h)	131	0	73	90	0	178	77	1368	177	0	1293	143
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1267	1776	1863	1867	1900	0	1863	1863
Adj Flow Rate, veh/h	142	0	79	94	0	185	84	1425	184	0	1347	155
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	2	2	7	2	2	2	0	2	2
Cap, veh/h	187	0	167	177	0	222	99	3467	447	0	1741	779
Arrive On Green	0.11	0.00	0.11	0.15	0.00	0.15	0.06	0.60	0.60	0.00	0.49	0.49
Sat Flow, veh/h	1774	0	1583	1206	0	1509	1774	5803	748	0	3632	1583
Grp Volume(v), veh/h	142	0	79	94	0	185	84	1182	427	0	1347	155
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1206	0	1509	1774	1606	1734	0	1770	1583
Q Serve(g_s), s	7.0	0.0	4.2	6.5	0.0	10.7	4.2	11.8	11.8	0.0	28.1	5.0
Cycle Q Clear(g_c), s	7.0	0.0	4.2	6.5	0.0	10.7	4.2	11.8	11.8	0.0	28.1	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	0.00		1.00
Lane Grp Cap(c), veh/h	187	0	167	177	0	222	99	2878	1036	0	1741	779
V/C Ratio(X)	0.76	0.00	0.47	0.53	0.00	0.83	0.85	0.41	0.41	0.00	0.77	0.20
Avail Cap(c_a), veh/h	355	0	317	241	0	302	99	2878	1036	0	1741	779
HCM Platoon Ratio	1.00	1.00	1.00	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	0.81	0.81	0.81	0.00	0.77	0.77
Uniform Delay (d), s/veh	39.1	0.0	37.9	35.5	0.0	37.3	42.1	9.7	9.7	0.0	18.8	12.9
Incr Delay (d2), s/veh	6.2	0.0	2.1	2.4	0.0	13.5	40.5	0.4	1.0	0.0	2.6	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	3.8	0.0	1.9	2.3	0.0	5.3	3.2	5.2	5.9	0.0	14.3	2.2
LnGrp Delay(d),s/veh	45.3	0.0	40.0	38.0	0.0	50.9	82.7	10.0	10.6	0.0	21.4	13.3
LnGrp LOS	D		D	D		D	F	B	B		C	B
Approach Vol, veh/h		221			279			1693			1502	
Approach Delay, s/veh		43.4			46.5			13.8			20.6	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		58.3		14.0	9.5	48.8		17.7
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		40.5		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s		13.8		9.0	6.2	30.1		12.7
Green Ext Time (p_c), s		23.5		0.5	0.0	0.9		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	3	114	1	102	1	1517	126	122	1328	5
Future Volume (veh/h)	3	0	3	114	1	102	1	1517	126	122	1328	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1827	1900	1900	1900	1863	1881	1727	1863	1900
Adj Flow Rate, veh/h	3	0	3	118	1	105	1	1564	130	126	1369	5
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	4	0	0	0	2	1	10	2	0
Cap, veh/h	7	0	32	237	164	139	3	2511	789	157	2081	949
Arrive On Green	0.00	0.00	0.02	0.07	0.09	0.09	0.00	0.49	0.49	0.10	0.59	0.59
Sat Flow, veh/h	1810	0	1615	3375	1900	1615	1810	5085	1597	1645	3539	1614
Grp Volume(v), veh/h	3	0	3	118	1	105	1	1564	130	126	1369	5
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1688	1900	1615	1810	1695	1597	1645	1770	1614
Q Serve(g_s), s	0.1	0.0	0.1	2.1	0.0	3.9	0.0	13.9	2.8	4.6	16.1	0.1
Cycle Q Clear(g_c), s	0.1	0.0	0.1	2.1	0.0	3.9	0.0	13.9	2.8	4.6	16.1	0.1
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	7	0	32	237	164	139	3	2511	789	157	2081	949
V/C Ratio(X)	0.41	0.00	0.09	0.50	0.01	0.76	0.34	0.62	0.16	0.80	0.66	0.01
Avail Cap(c_a), veh/h	146	0	852	404	1076	915	146	2658	835	210	2081	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	29.7	27.7	25.8	27.6	30.8	11.4	8.6	27.4	8.6	5.3
Incr Delay (d2), s/veh	32.5	0.0	1.5	1.6	0.0	9.6	57.6	0.5	0.1	14.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	1.0	0.0	2.1	0.1	6.5	1.2	2.7	7.8	0.0
LnGrp Delay(d),s/veh	63.2	0.0	31.2	29.3	25.8	37.2	88.5	11.9	8.7	42.1	9.4	5.3
LnGrp LOS	E		C	C	C	D	F	B	A	D	A	A
Approach Vol, veh/h		6			224			1695			1500	
Approach Delay, s/veh		47.2			33.0			11.7			12.1	
Approach LOS		D			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	36.3	8.8	6.2	4.6	42.1	4.8	10.3
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	7.9	32.3	7.4	32.6	5.0	35.2	5.0	35.0
Max Q Clear Time (g_c+I1), s	6.6	15.9	4.1	2.1	2.0	18.1	2.1	5.9
Green Ext Time (p_c), s	0.0	14.6	0.1	0.4	0.0	16.3	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	37	20	15	1607	1418	27
Future Volume (veh/h)	37	20	15	1607	1418	27
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1900	1863	1846	1900
Adj Flow Rate, veh/h	40	22	16	1747	1541	29
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	2	3	3
Cap, veh/h	209	99	37	2460	2889	54
Arrive On Green	0.06	0.06	0.02	0.70	0.57	0.57
Sat Flow, veh/h	3408	1615	1810	3632	5258	96
Grp Volume(v), veh/h	40	22	16	1747	1017	553
Grp Sat Flow(s),veh/h/ln	1704	1615	1810	1770	1680	1829
Q Serve(g_s), s	0.5	0.5	0.4	12.4	7.9	7.9
Cycle Q Clear(g_c), s	0.5	0.5	0.4	12.4	7.9	7.9
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	209	99	37	2460	1906	1037
V/C Ratio(X)	0.19	0.22	0.44	0.71	0.53	0.53
Avail Cap(c_a), veh/h	1506	713	216	2645	1906	1037
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	18.7	18.7	20.3	3.8	5.6	5.6
Incr Delay (d2), s/veh	0.4	1.1	7.9	0.9	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	6.1	3.6	4.0
LnGrp Delay(d),s/veh	19.1	19.8	28.2	4.7	6.0	6.2
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	62			1763	1570	
Approach Delay, s/veh	19.4			4.9	6.1	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		7.1	5.3	29.5				34.8
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		18.5	5.0	21.8				31.3
Max Q Clear Time (g_c+I1), s		2.5	2.4	9.9				14.4
Green Ext Time (p_c), s		0.1	0.0	11.6				14.7

Intersection Summary	
HCM 2010 Ctrl Delay	5.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	300	337	95	278	207	352	1151	97	189	983	243
Future Volume (veh/h)	300	300	337	95	278	207	352	1151	97	189	983	243
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1881	1863	1839	1900	1827	1856	1900	1863	1863	1827
Adj Flow Rate, veh/h	312	312	351	99	290	216	367	1199	101	197	1024	253
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	1	2	5	5	4	2	2	2	2	4
Cap, veh/h	338	1045	467	101	310	223	452	1160	98	203	1693	506
Arrive On Green	0.19	0.30	0.30	0.06	0.16	0.16	0.13	0.35	0.35	0.11	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	1914	1377	3375	3291	277	1774	5085	1521
Grp Volume(v), veh/h	312	312	351	99	264	242	367	641	659	197	1024	253
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1747	1544	1688	1763	1804	1774	1695	1521
Q Serve(g_s), s	18.1	7.2	21.1	5.9	15.7	16.4	11.1	37.0	37.0	11.6	17.7	14.0
Cycle Q Clear(g_c), s	18.1	7.2	21.1	5.9	15.7	16.4	11.1	37.0	37.0	11.6	17.7	14.0
Prop In Lane	1.00		1.00	1.00		0.89	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	338	1045	467	101	283	250	452	621	636	203	1693	506
V/C Ratio(X)	0.92	0.30	0.75	0.98	0.93	0.97	0.81	1.03	1.04	0.97	0.60	0.50
Avail Cap(c_a), veh/h	338	1045	467	101	283	250	547	621	636	203	1693	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	41.7	28.6	33.5	49.4	43.4	43.7	44.2	34.0	34.0	46.3	29.3	28.0
Incr Delay (d2), s/veh	30.1	0.6	9.6	81.6	36.4	48.2	10.0	44.7	45.3	54.9	0.7	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	11.7	3.6	10.4	5.2	10.4	10.3	5.8	25.7	26.4	8.8	8.4	6.0
LnGrp Delay(d),s/veh	71.9	29.2	43.1	131.0	79.8	91.9	54.2	78.7	79.3	101.2	30.0	29.1
LnGrp LOS	E	C	D	F	E	F	D	F	F	F	C	C
Approach Vol, veh/h		975			605			1667			1474	
Approach Delay, s/veh		47.8			93.0			73.5			39.4	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	42.0	10.0	37.0	18.0	40.0	24.0	23.0
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	12.0	37.0	6.0	31.0	17.0	32.0	20.0	17.0
Max Q Clear Time (g_c+I1), s	13.6	39.0	7.9	23.1	13.1	19.7	20.1	18.4
Green Ext Time (p_c), s	0.0	0.0	0.0	5.8	1.0	12.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	60.1
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	23	97	46	10	42	107	391	58	40	484	81
Future Volume (veh/h)	58	23	97	46	10	42	107	391	58	40	484	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1771	1810	1900	1729	1900	1792	1803	1900	1597	1863	1863
Adj Flow Rate, veh/h	64	25	107	51	11	46	118	430	64	44	532	89
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	26	26	5	0	0	0	6	5	5	19	2	2
Cap, veh/h	90	20	581	96	11	610	147	577	86	63	617	512
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.09	0.38	0.38	0.04	0.33	0.33
Sat Flow, veh/h	0	53	1536	0	29	1613	1707	1534	228	1521	1863	1548
Grp Volume(v), veh/h	89	0	107	62	0	46	118	0	494	44	532	89
Grp Sat Flow(s),veh/h/ln	54	0	1536	29	0	1613	1707	0	1762	1521	1863	1548
Q Serve(g_s), s	0.0	0.0	3.2	0.0	0.0	1.2	4.6	0.0	16.6	2.0	18.3	2.8
Cycle Q Clear(g_c), s	25.9	0.0	3.2	25.9	0.0	1.2	4.6	0.0	16.6	2.0	18.3	2.8
Prop In Lane	0.72		1.00	0.82		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	581	107	0	610	147	0	662	63	617	512
V/C Ratio(X)	0.80	0.00	0.18	0.58	0.00	0.08	0.80	0.00	0.75	0.70	0.86	0.17
Avail Cap(c_a), veh/h	111	0	581	107	0	610	147	0	662	120	658	547
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	14.2	29.7	0.0	13.6	30.7	0.0	18.5	32.4	21.4	16.3
Incr Delay (d2), s/veh	34.1	0.0	0.2	8.3	0.0	0.1	26.8	0.0	6.0	15.1	12.8	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	0.0	1.4	1.4	0.0	0.6	3.3	0.0	9.2	1.1	11.5	1.2
LnGrp Delay(d),s/veh	62.6	0.0	14.4	38.1	0.0	13.7	57.6	0.0	24.6	47.5	34.3	16.7
LnGrp LOS	E		B	D		B	E		C	D	C	B
Approach Vol, veh/h		196			108			612			665	
Approach Delay, s/veh		36.3			27.7			30.9			32.8	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.9	31.1		30.4	10.0	28.1		30.4
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	5.4	24.7		25.9	5.9	24.2		25.9
Max Q Clear Time (g_c+I1), s	4.0	18.6		27.9	6.6	20.3		27.9
Green Ext Time (p_c), s	0.0	4.8		0.0	0.0	2.4		0.0

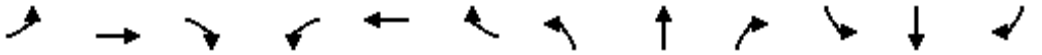
Intersection Summary	
HCM 2010 Ctrl Delay	32.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	111	19	575	121	232	14	621	557	199	533	25
Future Volume (veh/h)	29	111	19	575	121	232	14	621	557	199	533	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1850	1881	1900	1845	1881	1827	1860	1900
Adj Flow Rate, veh/h	31	118	20	704	0	247	15	661	593	212	567	27
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	6	1	0	3	1	4	2	2
Cap, veh/h	154	263	44	895	0	397	26	1187	541	171	1451	69
Arrive On Green	0.09	0.09	0.09	0.25	0.00	0.25	0.01	0.34	0.34	0.10	0.42	0.42
Sat Flow, veh/h	1810	3092	512	3583	0	1589	1810	3505	1596	1740	3431	163
Grp Volume(v), veh/h	31	68	70	704	0	247	15	661	593	212	292	302
Grp Sat Flow(s),veh/h/ln	1810	1805	1799	1792	0	1589	1810	1752	1596	1740	1767	1827
Q Serve(g_s), s	1.3	2.9	3.0	14.9	0.0	11.2	0.7	12.5	27.5	8.0	9.3	9.3
Cycle Q Clear(g_c), s	1.3	2.9	3.0	14.9	0.0	11.2	0.7	12.5	27.5	8.0	9.3	9.3
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	154	154	153	895	0	397	26	1187	541	171	748	773
V/C Ratio(X)	0.20	0.44	0.46	0.79	0.00	0.62	0.59	0.56	1.10	1.24	0.39	0.39
Avail Cap(c_a), veh/h	624	622	620	1236	0	548	89	1187	541	171	748	773
HCM Platoon Ratio	1.00	1.00	1.00	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	34.6	35.3	35.4	28.4	0.0	27.1	39.8	21.9	26.9	36.6	16.2	16.2
Incr Delay (d2), s/veh	0.6	2.0	2.1	2.4	0.0	1.6	19.5	0.7	67.9	146.4	0.5	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	1.5	1.6	7.6	0.0	5.1	0.5	6.2	22.2	10.8	4.6	4.8
LnGrp Delay(d),s/veh	35.2	37.3	37.5	30.8	0.0	28.7	59.3	22.6	94.7	183.0	16.7	16.7
LnGrp LOS	D	D	D	C		C	E	C	F	F	B	B
Approach Vol, veh/h		169			951			1269			806	
Approach Delay, s/veh		37.0			30.2			56.7			60.4	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	32.5		11.9	5.1	39.4		24.8
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	8.0	27.5		28.0	4.0	31.5		28.0
Max Q Clear Time (g_c+I1), s	10.0	29.5		5.0	2.7	11.3		16.9
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	14.3		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	48.7
HCM 2010 LOS	D

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	733	14	22	723	504	43	15	22	450	24	256
Future Volume (veh/h)	261	733	14	22	723	504	43	15	22	450	24	256
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1882	1900	1810	1881	1827	1900	1846	1900	1881	1875	1863
Adj Flow Rate, veh/h	278	780	15	23	769	0	46	16	23	498	0	272
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	5	1	4	0	0	0	1	4	2
Cap, veh/h	302	1562	30	34	1024	445	147	55	80	848	0	373
Arrive On Green	0.17	0.44	0.44	0.02	0.29	0.00	0.08	0.08	0.08	0.24	0.00	0.24
Sat Flow, veh/h	1792	3588	69	1723	3574	1553	1810	679	977	3583	0	1575
Grp Volume(v), veh/h	278	389	406	23	769	0	46	0	39	498	0	272
Grp Sat Flow(s),veh/h/ln	1792	1787	1869	1723	1787	1553	1810	0	1656	1792	0	1575
Q Serve(g_s), s	13.1	13.5	13.5	1.1	16.8	0.0	2.1	0.0	1.9	10.6	0.0	13.7
Cycle Q Clear(g_c), s	13.1	13.5	13.5	1.1	16.8	0.0	2.1	0.0	1.9	10.6	0.0	13.7
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	302	778	814	34	1024	445	147	0	135	848	0	373
V/C Ratio(X)	0.92	0.50	0.50	0.68	0.75	0.00	0.31	0.00	0.29	0.59	0.00	0.73
Avail Cap(c_a), veh/h	302	778	814	114	1122	488	147	0	135	1334	0	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	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.2	17.5	17.5	41.9	27.9	0.0	37.2	0.0	37.2	29.1	0.0	30.3
Incr Delay (d2), s/veh	31.8	1.8	1.7	21.2	4.4	0.0	5.5	0.0	5.3	0.9	0.0	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	9.2	7.0	7.3	0.7	8.9	0.0	1.3	0.0	1.1	5.4	0.0	6.3
LnGrp Delay(d),s/veh	67.0	19.3	19.2	63.0	32.3	0.0	42.7	0.0	42.5	30.0	0.0	34.2
LnGrp LOS	E	B	B	E	C		D		D	C		C
Approach Vol, veh/h		1073			792			85			770	
Approach Delay, s/veh		31.6			33.2			42.6			31.5	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.0	6.2	42.4		25.4	19.0	29.6
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		7.0	5.7	35.8		32.0	14.5	27.0
Max Q Clear Time (g_c+I1), s		4.1	3.1	15.5		15.7	15.1	18.8
Green Ext Time (p_c), s		0.1	0.0	17.3		4.1	0.0	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	32.4
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	813	478	511	1105	0	0	0	0	33	2	192
Future Volume (veh/h)	0	813	478	511	1105	0	0	0	0	33	2	192
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1845	1863	0				1827	1863	1900
Adj Flow Rate, veh/h	0	856	503	538	1163	0				35	2	202
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	3	2	0				4	0	4
Cap, veh/h	0	1289	575	558	2634	0				267	2	241
Arrive On Green	0.00	0.36	0.36	0.32	0.74	0.00				0.15	0.15	0.15
Sat Flow, veh/h	0	3632	1579	1757	3632	0				1740	16	1570
Grp Volume(v), veh/h	0	856	503	538	1163	0				35	0	204
Grp Sat Flow(s),veh/h/ln	0	1770	1579	1757	1770	0				1740	0	1586
Q Serve(g_s), s	0.0	18.3	26.7	27.1	11.3	0.0				1.6	0.0	11.2
Cycle Q Clear(g_c), s	0.0	18.3	26.7	27.1	11.3	0.0				1.6	0.0	11.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1289	575	558	2634	0				267	0	243
V/C Ratio(X)	0.00	0.66	0.87	0.96	0.44	0.00				0.13	0.00	0.84
Avail Cap(c_a), veh/h	0	1289	575	558	2634	0				445	0	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.35	0.35	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.0	26.7	30.2	4.4	0.0				32.9	0.0	37.0
Incr Delay (d2), s/veh	0.0	2.3	14.6	14.6	0.2	0.0				0.1	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.3	13.9	15.4	5.4	0.0				0.8	0.0	5.1
LnGrp Delay(d),s/veh	0.0	26.3	41.3	44.8	4.6	0.0				33.0	0.0	40.2
LnGrp LOS		C	D	D	A					C		D
Approach Vol, veh/h		1359			1701						239	
Approach Delay, s/veh		31.8			17.3						39.1	
Approach LOS		C			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	34.2	37.9		17.9		72.1		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	28.6	23.6		23.0		57.8		
Max Q Clear Time (g_c+I1), s	29.1	28.7		13.2		13.3		
Green Ext Time (p_c), s	0.0	0.0		0.6		17.6		

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	680	0	0	1067	76	549	3	491	0	0	0
Future Volume (veh/h)	166	680	0	0	1067	76	549	3	491	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1881	1881	0	0	1848	1900	1845	1832	1827			
Adj Flow Rate, veh/h	184	756	0	0	1186	84	781	0	365			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	1	1	0	0	3	3	3	33	4			
Cap, veh/h	226	2136	0	0	1390	98	944	0	417			
Arrive On Green	0.13	0.60	0.00	0.00	0.42	0.42	0.27	0.00	0.27			
Sat Flow, veh/h	1792	3668	0	0	3420	235	3514	0	1553			
Grp Volume(v), veh/h	184	756	0	0	625	645	781	0	365			
Grp Sat Flow(s),veh/h/ln	1792	1787	0	0	1756	1807	1757	0	1553			
Q Serve(g_s), s	6.5	7.0	0.0	0.0	20.9	21.0	13.6	0.0	14.6			
Cycle Q Clear(g_c), s	6.5	7.0	0.0	0.0	20.9	21.0	13.6	0.0	14.6			
Prop In Lane	1.00		0.00	0.00		0.13	1.00		1.00			
Lane Grp Cap(c), veh/h	226	2136	0	0	733	755	944	0	417			
V/C Ratio(X)	0.81	0.35	0.00	0.00	0.85	0.85	0.83	0.00	0.88			
Avail Cap(c_a), veh/h	234	2136	0	0	733	755	968	0	428			
HCM Platoon Ratio	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	0.00	0.00	0.84	0.84	1.00	0.00	1.00			
Uniform Delay (d), s/veh	27.7	6.7	0.0	0.0	17.1	17.1	22.4	0.0	22.7			
Incr Delay (d2), s/veh	12.5	0.3	0.0	0.0	10.4	10.2	6.2	0.0	18.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.0	3.5	0.0	0.0	12.2	12.5	7.3	0.0	8.3			
LnGrp Delay(d),s/veh	40.2	7.0	0.0	0.0	27.5	27.4	28.6	0.0	40.9			
LnGrp LOS	D	A			C	C	C		D			
Approach Vol, veh/h		940			1270			1146				
Approach Delay, s/veh		13.5			27.4			32.5				
Approach LOS		B			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		43.4			11.7	31.7		21.6
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		38.4			8.5	26.4		17.9
Max Q Clear Time (g_c+I1), s		9.0			8.5	23.0		16.6
Green Ext Time (p_c), s		12.2			0.0	2.6		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	25.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1004	84	12	1052	0	91	0	16	0	0	0
Future Volume (veh/h)	59	1004	84	12	1052	0	91	0	16	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1864	1900	1900	1845	0	1900	0	1900			
Adj Flow Rate, veh/h	64	1091	91	13	1143	0	99	0	17			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	3	0	0	0	0			
Cap, veh/h	135	1969	164	24	1876	0	143	0	128			
Arrive On Green	0.07	0.60	0.60	0.01	0.54	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	1810	3303	275	1810	3597	0	1810	0	1615			
Grp Volume(v), veh/h	64	585	597	13	1143	0	99	0	17			
Grp Sat Flow(s),veh/h/ln	1810	1771	1808	1810	1752	0	1810	0	1615			
Q Serve(g_s), s	1.5	8.6	8.6	0.3	9.8	0.0	2.3	0.0	0.4			
Cycle Q Clear(g_c), s	1.5	8.6	8.6	0.3	9.8	0.0	2.3	0.0	0.4			
Prop In Lane	1.00		0.15	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	135	1056	1078	24	1876	0	143	0	128			
V/C Ratio(X)	0.48	0.55	0.55	0.54	0.61	0.00	0.69	0.00	0.13			
Avail Cap(c_a), veh/h	250	1056	1078	230	1980	0	876	0	782			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	19.3	5.3	5.3	21.3	6.9	0.0	19.5	0.0	18.6			
Incr Delay (d2), s/veh	2.6	1.3	1.3	17.2	1.0	0.0	5.9	0.0	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			
%ile BackOfQ(50%),veh/ln	0.8	4.5	4.5	0.3	4.9	0.0	1.4	0.0	0.2			
LnGrp Delay(d),s/veh	21.9	6.6	6.6	38.5	7.9	0.0	25.3	0.0	19.1			
LnGrp LOS	C	A	A	D	A		C		B			
Approach Vol, veh/h		1246			1156			116				
Approach Delay, s/veh		7.4			8.3			24.4				
Approach LOS		A			A			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	4.6	30.9			7.2	28.2		7.9
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.5	25.0			6.0	24.5		21.0
Max Q Clear Time (g_c+I1), s	2.3	10.6			3.5	11.8		4.3
Green Ext Time (p_c), s	0.0	13.9			0.0	11.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	7	1489	1601	0
Future Vol, veh/h	0	0	7	1489	1601	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	-	-	135	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	7	1535	1651	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	825	1651	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	320	396	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	320	396	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	396	-	-	-	-
HCM Lane V/C Ratio	0.018	-	-	-	-
HCM Control Delay (s)	14.3	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	81	106	130	448	363	80
Future Vol, veh/h	81	106	130	448	363	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	370	-	220	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	2	1	9
Mvmt Flow	88	115	141	487	395	87

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	964	241	482	0	-	0
Stage 1	438	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.2	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.25	-	-	-
Pot Cap-1 Maneuver	257	766	1056	-	-	-
Stage 1	624	-	-	-	-	-
Stage 2	563	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	223	766	1056	-	-	-
Mov Cap-2 Maneuver	223	-	-	-	-	-
Stage 1	624	-	-	-	-	-
Stage 2	488	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.5	2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1056	-	223	766	-	-
HCM Lane V/C Ratio	0.134	-	0.395	0.15	-	-
HCM Control Delay (s)	8.9	-	31.3	10.5	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1.8	0.5	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	934	96	19	980	8	109	1	15	18	3	85
Future Volume (veh/h)	33	934	96	19	980	8	109	1	15	18	3	85
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1866	1900	1900	1863	1900	1900	1783	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	983	101	20	1032	8	115	1	16	19	53	56
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	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, %	0	2	2	0	2	2	0	0	0	0	0	0
Cap, veh/h	69	1510	155	44	1693	13	165	8	131	40	110	129
Arrive On Green	0.04	0.47	0.47	0.02	0.47	0.47	0.09	0.09	0.09	0.08	0.08	0.08
Sat Flow, veh/h	1810	3247	334	1810	3600	28	1810	90	1439	495	1380	1615
Grp Volume(v), veh/h	35	537	547	20	507	533	115	0	17	72	0	56
Grp Sat Flow(s),veh/h/ln	1810	1773	1807	1810	1770	1858	1810	0	1529	1875	0	1615
Q Serve(g_s), s	1.0	12.3	12.3	0.6	11.3	11.3	3.3	0.0	0.5	1.9	0.0	1.8
Cycle Q Clear(g_c), s	1.0	12.3	12.3	0.6	11.3	11.3	3.3	0.0	0.5	1.9	0.0	1.8
Prop In Lane	1.00		0.18	1.00		0.02	1.00		0.94	0.26		1.00
Lane Grp Cap(c), veh/h	69	825	841	44	832	874	165	0	140	150	0	129
V/C Ratio(X)	0.51	0.65	0.65	0.46	0.61	0.61	0.70	0.00	0.12	0.48	0.00	0.43
Avail Cap(c_a), veh/h	171	936	954	171	935	981	1024	0	865	177	0	152
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	25.0	10.9	10.9	25.5	10.4	10.4	23.4	0.0	22.1	23.3	0.0	23.2
Incr Delay (d2), s/veh	5.7	3.3	3.2	7.4	2.7	2.6	5.2	0.0	0.4	2.4	0.0	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	0.6	6.7	6.8	0.4	6.0	6.2	1.9	0.0	0.2	1.1	0.0	0.9
LnGrp Delay(d),s/veh	30.7	14.1	14.1	32.9	13.1	13.0	28.6	0.0	22.5	25.7	0.0	25.5
LnGrp LOS	C	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		1119			1060			132			128	
Approach Delay, s/veh		14.6			13.4			27.8			25.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	29.7		8.8	6.0	29.9		8.2
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 28		30.0	5.0	28.0		5.0
Max Q Clear Time (g_c+I1), s	2.6	14.3		5.3	3.0	13.3		3.9
Green Ext Time (p_c), s	2.1	10.4		0.4	0.0	10.7		0.0

Intersection Summary			
HCM 2010 Ctrl Delay		15.4	
HCM 2010 LOS		B	

Notes

Intersection	
Intersection Delay, s/veh	48
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	195	319	346	174	4	341	3	151	3	2	11
Future Vol, veh/h	6	195	319	346	174	4	341	3	151	3	2	11
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	17	6	5	2	6	0	4	0	6	0	0	0
Mvmt Flow	7	241	394	427	215	5	421	4	186	4	2	14
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	30.6	56.5	58.4	13.4
HCM LOS	D	F	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	99%	0%	3%	0%	100%	0%	19%
Vol Thru, %	1%	0%	97%	0%	0%	98%	12%
Vol Right, %	0%	100%	0%	100%	0%	2%	69%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	344	151	201	319	346	178	16
LT Vol	341	0	6	0	346	0	3
Through Vol	3	0	195	0	0	174	2
RT Vol	0	151	0	319	0	4	11
Lane Flow Rate	425	186	248	394	427	220	20
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	1.013	0.377	0.577	0.813	1.008	0.49	0.053
Departure Headway (Hd)	8.753	7.451	8.555	7.62	8.685	8.222	9.859
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	416	487	424	477	423	442	365
Service Time	6.453	5.151	6.255	5.32	6.385	5.922	7.859
HCM Lane V/C Ratio	1.022	0.382	0.585	0.826	1.009	0.498	0.055
HCM Control Delay	77.6	14.6	22.3	35.8	76	18.6	13.4
HCM Lane LOS	F	B	C	E	F	C	B
HCM 95th-tile Q	12.8	1.7	3.5	7.7	12.7	2.6	0.2

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	66	718	16	44	639
Future Vol, veh/h	21	66	718	16	44	639
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	3	0	12	4
Mvmt Flow	22	69	748	17	46	666

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1513	756	0	0	765	0
Stage 1	756	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.22	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.308	-
Pot Cap-1 Maneuver	133	411	-	-	805	-
Stage 1	467	-	-	-	-	-
Stage 2	467	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	125	411	-	-	805	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	467	-	-	-	-	-
Stage 2	440	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.5	0	0.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	265	805	-
HCM Lane V/C Ratio	-	-	0.342	0.057	-
HCM Control Delay (s)	-	-	25.5	9.7	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	1.5	0.2	-

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	3	3	69	1	2	6	734	50	6	679	2
Future Vol, veh/h	1	3	3	69	1	2	6	734	50	6	679	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	-	-	30	-	-	30	105	-	210	105	-	-
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, %	0	0	0	0	0	0	0	4	8	0	4	50
Mvmt Flow	1	3	3	75	1	2	7	798	54	7	738	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1563	1563	739	1565	1564	798	740	0	0	798	0	0
Stage 1	752	752	-	811	811	-	-	-	-	-	-	-
Stage 2	811	811	-	754	753	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	92	113	421	91	113	389	876	-	-	833	-	-
Stage 1	405	421	-	376	396	-	-	-	-	-	-	-
Stage 2	376	396	-	404	420	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	90	111	421	87	111	389	876	-	-	833	-	-
Mov Cap-2 Maneuver	90	111	-	87	111	-	-	-	-	-	-	-
Stage 1	402	417	-	373	393	-	-	-	-	-	-	-
Stage 2	370	393	-	394	416	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.1	145.2	0.1	0.1
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	876	-	-	105	421	87	389	833	-	-
HCM Lane V/C Ratio	0.007	-	-	0.041	0.008	0.875	0.006	0.008	-	-
HCM Control Delay (s)	9.1	-	-	40.8	13.6	148.9	14.3	9.4	-	-
HCM Lane LOS	A	-	-	E	B	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	4.7	0	0	-	-

Intersection	
Intersection Delay, s/veh	24.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	87	29	126	69	11	4	102	173	48	7	173	57
Future Vol, veh/h	87	29	126	69	11	4	102	173	48	7	173	57
Peak Hour Factor	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Heavy Vehicles, %	3	0	1	2	0	0	0	2	5	0	3	4
Mvmt Flow	143	48	207	113	18	7	167	284	79	11	284	93
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	18.5	18.6	31.9	23.9
HCM LOS	C	C	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	75%	0%	82%	100%	0%	0%
Vol Thru, %	0%	78%	25%	0%	13%	0%	100%	0%
Vol Right, %	0%	22%	0%	100%	5%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	221	116	126	84	7	173	57
LT Vol	102	0	87	0	69	7	0	0
Through Vol	0	173	29	0	11	0	173	0
RT Vol	0	48	0	126	4	0	0	57
Lane Flow Rate	167	362	190	207	138	11	284	93
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.408	0.819	0.48	0.455	0.378	0.029	0.681	0.206
Departure Headway (Hd)	8.777	8.137	9.09	7.932	9.883	9.111	8.647	7.941
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	410	446	397	454	364	393	417	452
Service Time	6.524	5.884	6.841	5.683	7.646	6.863	6.399	5.693
HCM Lane V/C Ratio	0.407	0.812	0.479	0.456	0.379	0.028	0.681	0.206
HCM Control Delay	17.5	38.5	20	17.2	18.6	12.1	28	12.8
HCM Lane LOS	C	E	C	C	C	B	D	B
HCM 95th-tile Q	1.9	7.7	2.5	2.3	1.7	0.1	4.9	0.8

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	11	23	339	338	2
Future Vol, veh/h	1	11	23	339	338	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	3	2	0
Mvmt Flow	1	12	26	377	376	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	805	377	378	0	-	0
Stage 1	377	-	-	-	-	-
Stage 2	428	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	355	674	1170	-	-	-
Stage 1	698	-	-	-	-	-
Stage 2	662	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	347	674	1170	-	-	-
Mov Cap-2 Maneuver	347	-	-	-	-	-
Stage 1	698	-	-	-	-	-
Stage 2	647	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1170	-	625	-	-
HCM Lane V/C Ratio	0.022	-	0.021	-	-
HCM Control Delay (s)	8.1	-	10.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	5.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	125	237	62	124	225
Future Vol, veh/h	74	125	237	62	124	225
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	15	2	3
Mvmt Flow	80	136	258	67	135	245

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	805	291	0	0	325	0
Stage 1	291	-	-	-	-	-
Stage 2	514	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	355	753	-	-	1235	-
Stage 1	763	-	-	-	-	-
Stage 2	605	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	316	753	-	-	1235	-
Mov Cap-2 Maneuver	316	-	-	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	539	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.7	0	2.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	497	1235	-
HCM Lane V/C Ratio	-	-	0.435	0.109	-
HCM Control Delay (s)	-	-	17.7	8.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.2	0.4	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	331	3	0	301
Future Vol, veh/h	1	1	331	3	0	301
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	48	48	48	48	48	48
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	2	2	690	6	0	627

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1320	693	0	0	696	0
Stage 1	693	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	175	447	-	-	909	-
Stage 1	500	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	175	447	-	-	909	-
Mov Cap-2 Maneuver	175	-	-	-	-	-
Stage 1	500	-	-	-	-	-
Stage 2	536	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	175	447	909	-
HCM Lane V/C Ratio	-	-	0.012	0.005	-	-
HCM Control Delay (s)	-	-	25.8	13.1	0	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-

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	0	0	1	29	0	13	2	321	35	13	289	0
Future Vol, veh/h	0	0	1	29	0	13	2	321	35	13	289	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	51	51	51	51	51	51	51	51	51	51	51	51
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	2	0
Mvmt Flow	0	0	2	57	0	25	4	629	69	25	567	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1302	1324	567	1291	1290	664	567	0	0	698	0	0
Stage 1	618	618	-	672	672	-	-	-	-	-	-	-
Stage 2	684	706	-	619	618	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	139	157	527	142	165	464	1015	-	-	908	-	-
Stage 1	480	484	-	449	458	-	-	-	-	-	-	-
Stage 2	442	442	-	480	484	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	128	152	527	138	160	464	1015	-	-	908	-	-
Mov Cap-2 Maneuver	128	152	-	138	160	-	-	-	-	-	-	-
Stage 1	478	471	-	447	456	-	-	-	-	-	-	-
Stage 2	416	440	-	465	471	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	42.3	0	0.4
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1015	-	-	527	176	908	-	-
HCM Lane V/C Ratio	0.004	-	-	0.004	0.468	0.028	-	-
HCM Control Delay (s)	8.6	-	-	11.9	42.3	9.1	-	-
HCM Lane LOS	A	-	-	B	E	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	2.2	0.1	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	17	341	69	7	312
Future Vol, veh/h	68	17	341	69	7	312
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	131	33	656	133	13	600

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1349	722	0	0	788	0
Stage 1	722	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	168	430	-	-	840	-
Stage 1	485	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	165	430	-	-	840	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	485	-	-	-	-	-
Stage 2	528	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.1	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	306	430	840	-
HCM Lane V/C Ratio	-	-	0.427	0.076	0.016	-
HCM Control Delay (s)	-	-	25.3	14.1	9.4	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	2	0.2	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	29	40	383	371	1
Future Vol, veh/h	0	29	40	383	371	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	12	10	1	1	0
Mvmt Flow	0	53	73	696	675	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1517	675	676	0	-	0
Stage 1	675	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Critical Hdwy	6.4	6.32	4.2	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.408	2.29	-	-	-
Pot Cap-1 Maneuver	133	437	879	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	426	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	122	437	879	-	-	-
Mov Cap-2 Maneuver	256	-	-	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	391	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	879	-	437	-	-
HCM Lane V/C Ratio	0.083	-	0.121	-	-
HCM Control Delay (s)	9.5	-	14.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.4	-	-

Intersection	
Int Delay, s/veh	138.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	176	9	2	19	136	690	5	5	798	8
Future Vol, veh/h	0	0	176	9	2	19	136	690	5	5	798	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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	50	4	22	0	5	1	2	0	0	2	13
Mvmt Flow	0	0	241	12	3	26	186	945	7	7	1093	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1093	2428	2428	949	1093	0	0	952	0	0
Stage 1	-	-	-	1321	1321	-	-	-	-	-	-	-
Stage 2	-	-	-	1107	1107	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	7.32	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	3.698	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	258	19	32	312	642	-	-	730	-	-
Stage 1	0	0	-	175	228	-	-	-	-	-	-	-
Stage 2	0	0	-	233	288	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	258	~ 1	23	312	642	-	-	730	-	-
Mov Cap-2 Maneuver	-	-	-	~ 1	23	-	-	-	-	-	-	-
Stage 1	-	-	-	124	162	-	-	-	-	-	-	-
Stage 2	-	-	-	15	285	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	82.2	$ 8006.9	2.1	0.1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	642	-	-	258	3	730	-	-
HCM Lane V/C Ratio	0.29	-	-	0.934	13.699	0.009	-	-
HCM Control Delay (s)	12.9	-	-	82.2	$ 8006.9	10	-	-
HCM Lane LOS	B	-	-	F	F	A	-	-
HCM 95th %tile Q(veh)	1.2	-	-	8.5	7	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Cumulative Conditions – Short Term Plus Project

Project Driveway Option A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	127	238	143	136	125	230	397	97	40	323	114
Future Volume (veh/h)	177	127	238	143	136	125	230	397	97	40	323	114
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1727	1727	1827	1843	1900	1827	1863	1863	1900	1819	1900
Adj Flow Rate, veh/h	203	146	274	164	156	144	264	456	111	46	371	131
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	10	10	4	5	5	4	2	2	0	5	5
Cap, veh/h	396	389	323	372	188	174	297	627	524	59	479	166
Arrive On Green	0.23	0.23	0.23	0.21	0.21	0.21	0.17	0.34	0.34	0.03	0.19	0.19
Sat Flow, veh/h	1757	1727	1434	1740	878	811	1740	1863	1557	1810	2481	860
Grp Volume(v), veh/h	203	146	274	164	0	300	264	456	111	46	256	246
Grp Sat Flow(s),veh/h/ln	1757	1727	1434	1740	0	1689	1740	1863	1557	1810	1728	1614
Q Serve(g_s), s	9.2	6.5	16.7	7.5	0.0	15.5	13.6	19.6	4.7	2.3	12.8	13.2
Cycle Q Clear(g_c), s	9.2	6.5	16.7	7.5	0.0	15.5	13.6	19.6	4.7	2.3	12.8	13.2
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	396	389	323	372	0	362	297	627	524	59	334	312
V/C Ratio(X)	0.51	0.38	0.85	0.44	0.00	0.83	0.89	0.73	0.21	0.78	0.77	0.79
Avail Cap(c_a), veh/h	538	529	439	533	0	518	303	683	571	59	380	355
HCM Platoon Ratio	1.00	1.00	1.00	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	31.0	29.9	33.9	31.1	0.0	34.3	37.1	26.6	21.7	43.9	34.9	35.1
Incr Delay (d2), s/veh	0.4	0.2	8.5	0.3	0.0	5.1	25.8	2.9	0.1	44.4	6.7	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	4.5	3.1	7.4	3.6	0.0	7.8	8.7	10.6	2.0	1.9	6.7	6.6
LnGrp Delay(d),s/veh	31.4	30.2	42.4	31.5	0.0	39.4	62.9	29.5	21.7	88.3	41.6	43.7
LnGrp LOS	C	C	D	C		D	E	C	C	F	D	D
Approach Vol, veh/h		623			464			831			548	
Approach Delay, s/veh		35.9			36.6			39.1			46.5	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.0	36.2		24.6	20.1	23.1		23.6
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	3.0	33.5		28.0	15.9	20.1		28.0
Max Q Clear Time (g_c+I1), s	4.3	21.6		18.7	15.6	15.2		17.5
Green Ext Time (p_c), s	0.0	3.5		1.1	0.0	2.0		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	39.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	45	11	50	7	490	2	414	55	428	392	1
Future Volume (veh/h)	6	45	11	50	7	490	2	414	55	428	392	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1813	1900	1900	1900	1827	1900	1827	1827	1827	1793	1900
Adj Flow Rate, veh/h	6	48	12	54	8	527	2	445	59	460	422	1
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	4	0	4	4	4	6	6
Cap, veh/h	67	338	78	407	54	841	3	536	449	504	1039	2
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.00	0.29	0.29	0.29	0.58	0.58
Sat Flow, veh/h	53	1334	308	1244	215	1547	1810	1827	1532	1740	1788	4
Grp Volume(v), veh/h	66	0	0	62	0	527	2	445	59	460	0	423
Grp Sat Flow(s),veh/h/ln	1696	0	0	1459	0	1547	1810	1827	1532	1740	0	1792
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	17.3	0.1	16.6	2.1	18.7	0.0	9.5
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.9	0.0	17.3	0.1	16.6	2.1	18.7	0.0	9.5
Prop In Lane	0.09		0.18	0.87		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	483	0	0	461	0	841	3	536	449	504	0	1041
V/C Ratio(X)	0.14	0.00	0.00	0.13	0.00	0.63	0.68	0.83	0.13	0.91	0.00	0.41
Avail Cap(c_a), veh/h	483	0	0	461	0	841	136	612	513	595	0	1078
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	0.0	21.1	0.0	11.6	36.5	24.1	19.0	25.1	0.0	8.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	1.5	69.3	8.5	0.1	16.3	0.0	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	1.0	0.0	0.0	1.0	0.0	7.6	0.1	9.7	0.9	11.2	0.0	4.7
LnGrp Delay(d),s/veh	21.3	0.0	0.0	21.2	0.0	13.1	105.8	32.6	19.1	41.4	0.0	8.6
LnGrp LOS	C			C		B	F	C	B	D		A
Approach Vol, veh/h		66			589			506			883	
Approach Delay, s/veh		21.3			13.9			31.4			25.7	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.2	25.4		22.5	4.1	46.5		22.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	25.0	24.5		18.5	5.5	44.0		18.5
Max Q Clear Time (g_c+I1), s	20.7	18.6		4.1	2.1	11.5		19.3
Green Ext Time (p_c), s	0.5	2.8		2.5	0.0	6.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	32	121	50	52	26	166	512	62	18	219	362
Future Volume (veh/h)	58	32	121	50	52	26	166	512	62	18	219	362
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1841	1845	1863	1804	1900	1863	1835	1900	1900	1810	1810
Adj Flow Rate, veh/h	64	35	133	55	57	29	182	563	68	20	241	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	3	2	8	8	2	4	4	0	5	5
Cap, veh/h	159	87	217	210	134	68	236	1134	137	45	459	390
Arrive On Green	0.14	0.14	0.14	0.12	0.12	0.12	0.13	0.36	0.36	0.02	0.25	0.00
Sat Flow, veh/h	1153	630	1568	1774	1129	574	1774	3133	377	1810	1810	1538
Grp Volume(v), veh/h	99	0	133	55	0	86	182	313	318	20	241	0
Grp Sat Flow(s),veh/h/ln	1783	0	1568	1774	0	1703	1774	1743	1768	1810	1810	1538
Q Serve(g_s), s	2.0	0.0	3.2	1.1	0.0	1.9	4.0	5.6	5.6	0.4	4.6	0.0
Cycle Q Clear(g_c), s	2.0	0.0	3.2	1.1	0.0	1.9	4.0	5.6	5.6	0.4	4.6	0.0
Prop In Lane	0.65		1.00	1.00		0.34	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	247	0	217	210	0	202	236	631	640	45	459	390
V/C Ratio(X)	0.40	0.00	0.61	0.26	0.00	0.43	0.77	0.50	0.50	0.44	0.52	0.00
Avail Cap(c_a), veh/h	1133	0	997	814	0	781	862	1533	1555	293	1006	855
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	15.8	0.0	16.3	16.1	0.0	16.4	16.8	10.0	10.0	19.3	12.9	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.0	0.2	0.0	0.5	2.0	0.3	0.3	2.5	0.5	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	1.0	0.0	1.5	0.6	0.0	0.9	2.1	2.7	2.8	0.2	2.3	0.0
LnGrp Delay(d),s/veh	16.2	0.0	17.3	16.3	0.0	16.9	18.8	10.3	10.3	21.8	13.4	0.0
LnGrp LOS	B		B	B		B	B	B	B	C	B	
Approach Vol, veh/h		232			141			813			261	
Approach Delay, s/veh		16.8			16.7			12.2			14.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.0	18.2		9.0	8.3	13.9		8.9
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	6.5	35.3		25.5	19.5	22.3		18.4
Max Q Clear Time (g_c+I1), s	2.4	7.6		5.2	6.0	6.6		3.9
Green Ext Time (p_c), s	0.0	4.1		0.5	0.2	3.6		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	26.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	92	393	347	88	80	309
Future Vol, veh/h	92	393	347	88	80	309
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	91	91	91	91	91	91
Heavy Vehicles, %	2	4	3	6	10	2
Mvmt Flow	101	432	381	97	88	340

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	896	381	0	0	381	0
Stage 1	381	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Critical Hdwy	6.42	6.24	-	-	4.2	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	-	-	2.29	-
Pot Cap-1 Maneuver	311	662	-	-	1135	-
Stage 1	691	-	-	-	-	-
Stage 2	600	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	281	662	-	-	1135	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	70.2	0	1.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	527	1135	-
HCM Lane V/C Ratio	-	-	1.011	0.077	-
HCM Control Delay (s)	-	-	70.2	8.4	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	14.5	0.3	-

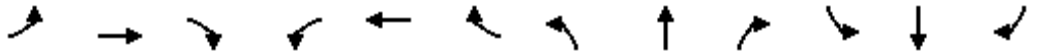
Intersection	
Int Delay, s/veh	3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	169	35	68	116	39	72
Future Vol, veh/h	169	35	68	116	39	72
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	88	88	88	88	88	88
Heavy Vehicles, %	4	9	7	3	18	6
Mvmt Flow	192	40	77	132	44	82

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	232	0	498	212
Stage 1	-	-	-	-	212	-
Stage 2	-	-	-	-	286	-
Critical Hdwy	-	-	4.17	-	6.58	6.26
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.263	-	3.662	3.354
Pot Cap-1 Maneuver	-	-	1307	-	504	818
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	727	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1307	-	472	818
Mov Cap-2 Maneuver	-	-	-	-	472	-
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	680	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	650	-	-	1307	-
HCM Lane V/C Ratio	0.194	-	-	0.059	-
HCM Control Delay (s)	11.9	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	201	110	250	187	21	161	442	214	28	954	173
Future Volume (veh/h)	108	201	110	250	187	21	161	442	214	28	954	173
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1743	1863	1743	1810	1727	1792	1810	1827	1863	1881
Adj Flow Rate, veh/h	115	214	117	266	199	22	171	470	228	30	1015	184
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	9	2	9	5	10	6	5	4	2	1
Cap, veh/h	144	341	282	340	357	311	204	1476	819	42	1181	668
Arrive On Green	0.08	0.19	0.19	0.10	0.20	0.20	0.12	0.43	0.43	0.02	0.33	0.33
Sat Flow, veh/h	1707	1792	1482	3442	1743	1518	1645	3406	1538	1740	3539	1599
Grp Volume(v), veh/h	115	214	117	266	199	22	171	470	228	30	1015	184
Grp Sat Flow(s),veh/h/ln	1707	1792	1482	1721	1743	1518	1645	1703	1538	1740	1770	1599
Q Serve(g_s), s	5.2	8.7	5.5	6.0	8.1	0.9	8.0	7.2	6.4	1.4	21.2	6.0
Cycle Q Clear(g_c), s	5.2	8.7	5.5	6.0	8.1	0.9	8.0	7.2	6.4	1.4	21.2	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	144	341	282	340	357	311	204	1476	819	42	1181	668
V/C Ratio(X)	0.80	0.63	0.42	0.78	0.56	0.07	0.84	0.32	0.28	0.71	0.86	0.28
Avail Cap(c_a), veh/h	162	545	450	340	537	467	219	1476	819	130	1242	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)	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	35.5	29.4	28.1	34.7	28.2	25.3	33.8	14.7	10.1	38.2	24.6	15.1
Incr Delay (d2), s/veh	21.9	4.0	2.1	11.2	2.9	0.2	22.7	0.3	0.4	19.2	6.8	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	3.3	4.7	2.4	3.4	4.2	0.4	4.9	3.4	2.8	0.9	11.4	2.7
LnGrp Delay(d),s/veh	57.4	33.4	30.2	46.0	31.1	25.5	56.5	15.0	10.5	57.4	31.4	15.6
LnGrp LOS	E	C	C	D	C	C	E	B	B	E	C	B
Approach Vol, veh/h		446			487			869			1229	
Approach Delay, s/veh		38.8			39.0			22.0			29.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	39.7	12.3	20.5	14.3	31.8	11.1	21.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.9	32.3	7.8	24.0	10.5	27.7	7.5	24.3
Max Q Clear Time (g_c+I1), s	3.4	9.2	8.0	10.7	10.0	23.2	7.2	10.1
Green Ext Time (p_c), s	0.0	19.3	0.0	4.3	0.0	3.2	0.0	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	104	126	0	97	0	735	98	141	1173	1
Future Volume (vph)	0	0	104	126	0	97	0	735	98	141	1173	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	5.5
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.95	1.00
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	0.85
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)			1448	1770		1495		4893	1583	1736	3539	1615
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)			1448	1770		1495		4893	1583	1736	3539	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	111	134	0	103	0	782	104	150	1248	1
RTOR Reduction (vph)	0	0	104	0	0	77	0	0	54	0	0	0
Lane Group Flow (vph)	0	0	7	134	0	26	0	782	50	150	1248	1
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	Perm
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			2
Actuated Green, G (s)			3.0	4.9		12.4		19.0	23.9	5.1	28.1	28.1
Effective Green, g (s)			3.0	4.9		12.4		19.0	23.9	5.1	28.1	28.1
Actuated g/C Ratio			0.06	0.10		0.25		0.38	0.48	0.10	0.56	0.56
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	5.5
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	4.0
Lane Grp Cap (vph)			86	173		370		1859	756	177	1988	907
v/s Ratio Prot				c0.08				0.16	0.01	c0.09	c0.35	
v/s Ratio Perm			0.00			c0.02			0.02			0.00
v/c Ratio			0.08	0.77		0.07		0.42	0.07	0.85	0.63	0.00
Uniform Delay, d1			22.2	22.0		14.4		11.4	7.0	22.1	7.4	4.8
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2			0.4	19.2		0.1		0.2	0.0	28.4	0.7	0.0
Delay (s)			22.6	41.2		14.5		11.6	7.1	50.5	8.1	4.8
Level of Service			C	D		B		B	A	D	A	A
Approach Delay (s)		22.6			29.6			11.1			12.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	23	241	149	41	28	265	814	113	89	1311	96
Future Volume (veh/h)	109	23	241	149	41	28	265	814	113	89	1311	96
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1776	1881	1743	1845	1863
Adj Flow Rate, veh/h	114	24	251	155	43	29	276	848	118	93	1366	100
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	1	9	3	2
Cap, veh/h	141	225	317	185	270	236	312	1807	856	117	1483	661
Arrive On Green	0.09	0.13	0.13	0.11	0.16	0.16	0.18	0.54	0.54	0.07	0.42	0.42
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	3374	1598	1660	3505	1562
Grp Volume(v), veh/h	114	24	251	155	43	29	276	848	118	93	1366	100
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1687	1598	1660	1752	1562
Q Serve(g_s), s	7.6	1.4	11.1	10.3	2.4	1.8	17.6	17.4	4.1	6.2	41.1	4.4
Cycle Q Clear(g_c), s	7.6	1.4	11.1	10.3	2.4	1.8	17.6	17.4	4.1	6.2	41.1	4.4
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	141	225	317	185	270	236	312	1807	856	117	1483	661
V/C Ratio(X)	0.81	0.11	0.79	0.84	0.16	0.12	0.88	0.47	0.14	0.80	0.92	0.15
Avail Cap(c_a), veh/h	442	468	658	442	464	405	688	1807	856	297	1569	699
HCM Platoon Ratio	1.00	1.00	1.00	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	50.1	42.9	47.2	48.5	40.8	40.6	44.5	16.1	13.0	51.1	30.4	19.9
Incr Delay (d2), s/veh	10.3	0.2	4.5	9.5	0.3	0.2	8.2	0.4	0.2	11.6	9.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.7	3.9	5.2	1.2	0.8	9.0	8.1	1.9	3.2	21.9	1.9
LnGrp Delay(d),s/veh	60.5	43.1	51.7	58.1	41.1	40.8	52.7	16.5	13.2	62.8	40.0	20.1
LnGrp LOS	E	D	D	E	D	D	D	B	B	E	D	C
Approach Vol, veh/h		389			227			1242			1559	
Approach Delay, s/veh		53.7			52.6			24.2			40.1	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	64.8	16.6	18.4	24.4	52.3	13.6	21.4
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	8.2	19.4	12.3	13.1	19.6	43.1	9.6	4.4
Green Ext Time (p_c), s	0.1	28.4	0.4	1.3	0.8	4.1	0.3	1.5

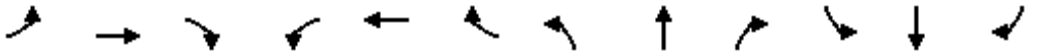
Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	89	632	71	330	108	884	197	0	1650	63
Future Volume (veh/h)	20	0	89	632	71	330	108	884	197	0	1650	63
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1759	1845	1805	1776	1827	1792	1681	0	1696	1900
Adj Flow Rate, veh/h	22	0	98	695	0	415	119	971	216	0	1813	69
Adj No. of Lanes	1	0	1	2	0	2	1	3	1	0	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	8	3	2	7	4	6	13	0	12	0
Cap, veh/h	39	0	0	766	0	467	459	3374	985	0	1733	604
Arrive On Green	0.02	0.00	0.00	0.22	0.00	0.15	0.53	1.00	1.00	0.00	0.37	0.37
Sat Flow, veh/h	1810	22		3514	0	3019	1740	4893	1429	0	4784	1615
Grp Volume(v), veh/h	22	62.7		695	0	415	119	971	216	0	1813	69
Grp Sat Flow(s),veh/h/ln	1810	E		1757	0	1509	1740	1631	1429	0	1544	1615
Q Serve(g_s), s	1.4			23.1	0.0	16.2	4.5	0.0	0.0	0.0	44.9	2.8
Cycle Q Clear(g_c), s	1.4			23.1	0.0	16.2	4.5	0.0	0.0	0.0	44.9	2.8
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	39			766	0	467	459	3374	985	0	1733	604
V/C Ratio(X)	0.56			0.91	0.00	0.89	0.26	0.29	0.22	0.00	1.05	0.11
Avail Cap(c_a), veh/h	92			1467	0	981	459	3374	985	0	1733	604
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00			1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.49	0.49
Uniform Delay (d), s/veh	58.1			45.7	0.0	49.7	21.9	0.0	0.0	0.0	37.5	16.6
Incr Delay (d2), s/veh	4.6			1.8	0.0	2.4	0.1	0.2	0.5	0.0	29.0	0.2
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8			11.4	0.0	6.9	2.1	0.1	0.1	0.0	23.8	1.3
LnGrp Delay(d),s/veh	62.7			47.5	0.0	52.1	22.1	0.2	0.5	0.0	66.6	16.8
LnGrp LOS	E			D		D	C	A	A		F	B
Approach Vol, veh/h					1110			1306			1882	
Approach Delay, s/veh					49.2			2.3			64.8	
Approach LOS					D			A			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		88.9	31.1		37.8	51.1	7.2	23.9
Change Period (Y+Rc), s		6.2	4.9		6.2	* 6.2	4.6	5.3
Max Green Setting (Gmax), s		58.8	50.1		9.2	* 45	6.1	39.0
Max Q Clear Time (g_c+I1), s		2.0	25.1		6.5	46.9	3.4	18.2
Green Ext Time (p_c), s		3.1	0.5		1.1	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	41.9
HCM 2010 LOS	D

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	420	104	203	46	0	111	0	1026	33	195	1256	357
Future Volume (veh/h)	420	104	203	46	0	111	0	1026	33	195	1256	357
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1845	1776	1845	0	1863	0	1667	1792	1863	1863	1743
Adj Flow Rate, veh/h	483	120	233	53	0	128	0	1179	38	224	1444	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	7	3	7	3	0	2	0	14	6	2	2	9
Cap, veh/h	846	600	258	85	0	0	0	1328	353	1269	2308	966
Arrive On Green	0.26	0.17	0.17	0.05	0.00	0.00	0.00	0.46	0.46	0.74	1.00	0.00
Sat Flow, veh/h	3281	3505	1509	1757	53		0	5967	1524	3442	3539	1482
Grp Volume(v), veh/h	483	120	233	53	58.8		0	1179	38	224	1444	0
Grp Sat Flow(s),veh/h/ln	1640	1752	1509	1757	E		0	1433	1524	1721	1770	1482
Q Serve(g_s), s	15.4	3.5	18.2	3.6			0.0	22.5	1.4	2.4	0.0	0.0
Cycle Q Clear(g_c), s	15.4	3.5	18.2	3.6			0.0	22.5	1.4	2.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	846	600	258	85			0	1328	353	1269	2308	966
V/C Ratio(X)	0.57	0.20	0.90	0.62			0.00	0.89	0.11	0.18	0.63	0.00
Avail Cap(c_a), veh/h	846	1227	528	108			0	1787	475	1269	2308	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00			0.00	0.96	0.96	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.7	42.7	48.7	56.0			0.0	30.8	16.9	10.2	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.1	4.6	2.8			0.0	8.8	0.6	0.0	1.3	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
%ile BackOfQ(50%),veh/ln	7.1	1.7	7.9	1.8			0.0	9.6	0.6	1.1	0.4	0.0
LnGrp Delay(d),s/veh	39.5	42.7	53.4	58.8			0.0	39.6	17.5	10.3	1.3	0.0
LnGrp LOS	D	D	D	E				D	B	B	A	
Approach Vol, veh/h		836						1217			1668	
Approach Delay, s/veh		43.8						38.9			2.5	
Approach LOS		D						D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	50.5	34.0	10.4	25.1		84.5	35.5	
Change Period (Y+Rc), s	6.2	* 6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	13.2	* 37	7.4	42.0		55.2	23.3	
Max Q Clear Time (g_c+I1), s	4.4	24.5	5.6	20.2		2.0	17.4	
Green Ext Time (p_c), s	3.6	3.3	0.0	0.4		5.3	0.8	

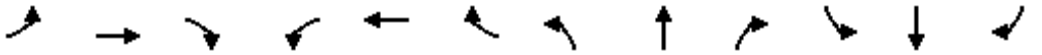
Intersection Summary	
HCM 2010 Ctrl Delay	24.2
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	5	120	0	176	7	876	60	0	1460	13
Future Volume (veh/h)	7	0	5	120	0	176	7	876	60	0	1460	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1900	1532	1863	1778	1900	0	1810	1863
Adj Flow Rate, veh/h	8	0	5	148	0	217	8	1081	74	0	1802	14
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	1
Peak Hour Factor	0.92	0.92	0.92	0.81	0.92	0.81	0.92	0.81	0.81	0.81	0.81	0.92
Percent Heavy Veh, %	2	2	2	2	2	24	2	7	7	0	5	2
Cap, veh/h	26	0	23	271	0	195	17	4259	290	0	2323	1070
Arrive On Green	0.01	0.00	0.01	0.15	0.00	0.15	0.01	0.72	0.72	0.00	1.00	1.00
Sat Flow, veh/h	1774	0	1583	1810	0	1302	1774	5892	401	0	3529	1583
Grp Volume(v), veh/h	8	0	5	148	0	217	8	840	315	0	1802	14
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1810	0	1302	1774	1529	1707	0	1719	1583
Q Serve(g_s), s	0.5	0.0	0.4	9.1	0.0	18.0	0.5	7.5	7.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	0.4	9.1	0.0	18.0	0.5	7.5	7.5	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	0.00		1.00
Lane Grp Cap(c), veh/h	26	0	23	271	0	195	17	3316	1234	0	2323	1070
V/C Ratio(X)	0.31	0.00	0.22	0.55	0.00	1.11	0.46	0.25	0.26	0.00	0.78	0.01
Avail Cap(c_a), veh/h	266	0	237	271	0	195	74	3316	1234	0	2323	1070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.95	0.95	0.95	0.00	0.76	0.76
Uniform Delay (d), s/veh	58.5	0.0	58.4	47.2	0.0	51.0	59.1	5.6	5.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	6.5	0.0	4.5	2.3	0.0	97.2	17.2	0.2	0.5	0.0	2.0	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	0.3	0.0	0.2	4.7	0.0	11.7	0.3	3.2	3.7	0.0	0.6	0.0
LnGrp Delay(d),s/veh	65.0	0.0	63.0	49.5	0.0	148.2	76.3	5.8	6.1	0.0	2.0	0.0
LnGrp LOS	E		E	D		F	E	A	A		A	A
Approach Vol, veh/h		13			365			1163			1816	
Approach Delay, s/veh		64.2			108.2			6.4			2.0	
Approach LOS		E			F			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		91.2		6.3	5.7	85.6		22.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		70.5		18.0	5.0	61.0		18.0
Max Q Clear Time (g_c+I1), s		9.5		2.5	2.5	2.0		20.0
Green Ext Time (p_c), s		47.2		0.0	0.0	46.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.3
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	1	38	1	8	0	933	25	40	1542	3
Future Volume (veh/h)	2	0	1	38	1	8	0	933	25	40	1542	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1267	1900	1900	1597	1900	1520	1900	1792	1743	1387	1827	1429
Adj Flow Rate, veh/h	2	0	1	48	1	10	0	1166	31	50	1928	4
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	50	0	0	19	0	25	0	6	9	37	4	33
Cap, veh/h	3	0	2	115	71	49	2	3403	1030	57	2738	957
Arrive On Green	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.70	0.70	0.04	0.79	0.79
Sat Flow, veh/h	1206	0	1615	2950	1900	1292	1810	4893	1481	1321	3471	1214
Grp Volume(v), veh/h	2	0	1	48	1	10	0	1166	31	50	1928	4
Grp Sat Flow(s),veh/h/ln	1206	0	1615	1475	1900	1292	1810	1631	1481	1321	1736	1214
Q Serve(g_s), s	0.1	0.0	0.1	1.4	0.0	0.7	0.0	8.5	0.6	3.4	23.6	0.1
Cycle Q Clear(g_c), s	0.1	0.0	0.1	1.4	0.0	0.7	0.0	8.5	0.6	3.4	23.6	0.1
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	3	0	2	115	71	49	2	3403	1030	57	2738	957
V/C Ratio(X)	0.61	0.00	0.45	0.42	0.01	0.21	0.00	0.34	0.03	0.88	0.70	0.00
Avail Cap(c_a), veh/h	67	0	614	198	743	505	101	3703	1120	185	2918	1020
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	0.0	44.6	42.0	41.5	41.8	0.0	5.5	4.2	42.6	4.5	2.0
Incr Delay (d2), s/veh	113.6	0.0	118.0	2.4	0.1	2.5	0.0	0.1	0.0	31.7	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.6	0.0	0.3	0.0	3.8	0.2	1.7	11.3	0.0
LnGrp Delay(d),s/veh	158.2	0.0	162.6	44.4	41.5	44.2	0.0	5.5	4.3	74.2	5.3	2.0
LnGrp LOS	F		F	D	D	D		A	A	E	A	A
Approach Vol, veh/h		3			59			1197			1982	
Approach Delay, s/veh		159.6			44.3			5.5			7.0	
Approach LOS		F			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	68.0	8.0	5.1	0.0	76.4	4.7	8.4
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	12.5	67.7	6.0	34.0	5.0	75.2	5.0	35.0
Max Q Clear Time (g_c+I1), s	5.4	10.5	3.4	2.1	0.0	25.6	2.1	2.7
Green Ext Time (p_c), s	0.0	51.1	0.0	0.0	0.0	44.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	8	73	906	1401	304
Future Volume (veh/h)	22	8	73	906	1401	304
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1900	1900	1810	1825	1900
Adj Flow Rate, veh/h	29	11	96	1192	1843	400
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	5	0	0	5	5	5
Cap, veh/h	135	65	124	2720	2668	568
Arrive On Green	0.04	0.04	0.07	0.79	0.65	0.65
Sat Flow, veh/h	3343	1615	1810	3529	4280	876
Grp Volume(v), veh/h	29	11	96	1192	1480	763
Grp Sat Flow(s),veh/h/ln	1672	1615	1810	1719	1661	1670
Q Serve(g_s), s	0.5	0.4	3.2	6.7	17.1	17.9
Cycle Q Clear(g_c), s	0.5	0.4	3.2	6.7	17.1	17.9
Prop In Lane	1.00	1.00	1.00			0.52
Lane Grp Cap(c), veh/h	135	65	124	2720	2153	1082
V/C Ratio(X)	0.21	0.17	0.77	0.44	0.69	0.70
Avail Cap(c_a), veh/h	1076	520	194	2855	2155	1083
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.1	28.1	27.7	2.0	6.8	6.9
Incr Delay (d2), s/veh	0.8	1.2	9.8	0.1	1.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	1.9	3.0	7.9	8.7
LnGrp Delay(d),s/veh	28.9	29.3	37.5	2.2	7.7	9.1
LnGrp LOS	C	C	D	A	A	A
Approach Vol, veh/h	40			1288	2243	
Approach Delay, s/veh	29.0			4.8	8.2	
Approach LOS	C			A	A	

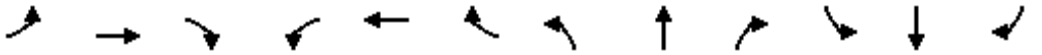
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		6.9	8.7	45.0				53.6
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		19.5	6.5	39.3				50.3
Max Q Clear Time (g_c+I1), s		2.5	5.2	19.9				8.7
Green Ext Time (p_c), s		0.1	0.0	18.8				39.2

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	306	296	125	345	165	430	697	90	148	835	246
Future Volume (veh/h)	130	306	296	125	345	165	430	697	90	148	835	246
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1863	1845	1900	1863	1900	1881	1779	1900	1696	1827	1827
Adj Flow Rate, veh/h	157	369	357	151	416	199	518	840	108	178	1006	296
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	6	2	3	0	2	2	1	7	7	12	4	4
Cap, veh/h	188	1104	484	97	591	279	262	938	121	191	1768	539
Arrive On Green	0.11	0.31	0.31	0.05	0.26	0.26	0.08	0.31	0.31	0.12	0.35	0.35
Sat Flow, veh/h	1707	3539	1553	1810	2314	1093	3476	3011	387	1616	4988	1522
Grp Volume(v), veh/h	157	369	357	151	317	298	518	472	476	178	1006	296
Grp Sat Flow(s),veh/h/ln	1707	1770	1553	1810	1770	1638	1738	1691	1707	1616	1663	1522
Q Serve(g_s), s	8.4	7.4	19.1	5.0	15.1	15.4	7.0	24.8	24.8	10.1	15.2	14.5
Cycle Q Clear(g_c), s	8.4	7.4	19.1	5.0	15.1	15.4	7.0	24.8	24.8	10.1	15.2	14.5
Prop In Lane	1.00		1.00	1.00		0.67	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	188	1104	484	97	452	418	262	527	532	191	1768	539
V/C Ratio(X)	0.83	0.33	0.74	1.55	0.70	0.71	1.98	0.90	0.90	0.93	0.57	0.55
Avail Cap(c_a), veh/h	220	1181	518	97	457	423	262	528	533	191	1771	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	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	24.6	28.6	44.0	31.4	31.5	43.0	30.5	30.5	40.6	24.2	24.0
Incr Delay (d2), s/veh	20.6	0.6	8.4	292.0	5.2	6.0	453.7	19.7	19.6	45.7	0.5	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	5.0	3.7	9.3	10.4	8.0	7.7	19.8	14.4	14.5	7.0	7.0	6.3
LnGrp Delay(d),s/veh	61.1	25.2	37.0	335.9	36.6	37.5	496.6	50.3	50.1	86.2	24.8	25.5
LnGrp LOS	E	C	D	F	D	D	F	D	D	F	C	C
Approach Vol, veh/h		883			766			1466			1480	
Approach Delay, s/veh		36.4			96.0			207.9			32.3	
Approach LOS		D			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	33.9	9.0	35.0	11.0	37.9	14.3	29.7
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	11.0	29.0	5.0	31.0	7.0	33.0	12.0	24.0
Max Q Clear Time (g_c+I1), s	12.1	26.8	7.0	21.1	9.0	17.2	10.4	17.4
Green Ext Time (p_c), s	0.0	2.2	0.0	7.6	0.0	14.6	0.1	5.3

Intersection Summary	
HCM 2010 Ctrl Delay	99.7
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	21	170	71	67	51	125	405	79	36	401	47
Future Volume (veh/h)	51	21	170	71	67	51	125	405	79	36	401	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1535	1484	1900	1695	1792	1712	1739	1900	1387	1776	1727
Adj Flow Rate, veh/h	56	23	187	78	74	56	137	445	87	40	441	52
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	33	33	28	9	9	6	11	7	7	37	7	10
Cap, veh/h	91	19	481	80	47	580	166	528	103	52	552	446
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.10	0.37	0.37	0.04	0.31	0.31
Sat Flow, veh/h	0	49	1260	0	124	1522	1630	1413	276	1321	1776	1435
Grp Volume(v), veh/h	79	0	187	152	0	56	137	0	532	40	441	52
Grp Sat Flow(s),veh/h/ln	49	0	1260	124	0	1522	1630	0	1689	1321	1776	1435
Q Serve(g_s), s	0.0	0.0	7.3	0.0	0.0	1.6	5.6	0.0	19.6	2.0	15.5	1.8
Cycle Q Clear(g_c), s	25.9	0.0	7.3	25.9	0.0	1.6	5.6	0.0	19.6	2.0	15.5	1.8
Prop In Lane	0.71		1.00	0.51		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	109	0	481	128	0	580	166	0	631	52	552	446
V/C Ratio(X)	0.72	0.00	0.39	1.19	0.00	0.10	0.83	0.00	0.84	0.78	0.80	0.12
Avail Cap(c_a), veh/h	109	0	481	128	0	580	166	0	631	105	607	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)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	0.0	15.3	24.7	0.0	13.5	29.9	0.0	19.5	32.3	21.5	16.7
Incr Delay (d2), s/veh	21.6	0.0	0.6	140.2	0.0	0.1	28.3	0.0	11.5	24.6	9.2	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	2.1	0.0	2.6	7.3	0.0	0.7	3.8	0.0	11.0	1.1	8.9	0.7
LnGrp Delay(d),s/veh	49.6	0.0	15.9	164.9	0.0	13.6	58.2	0.0	31.0	56.9	30.6	17.0
LnGrp LOS	D		B	F		B	E		C	E	C	B
Approach Vol, veh/h		266			208			669			533	
Approach Delay, s/veh		25.9			124.2			36.5			31.3	
Approach LOS		C			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.7	30.8		30.4	11.0	26.5		30.4
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	5.4	24.7		25.9	6.9	23.2		25.9
Max Q Clear Time (g_c+I1), s	4.0	21.6		27.9	7.6	17.5		27.9
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	3.7		0.0

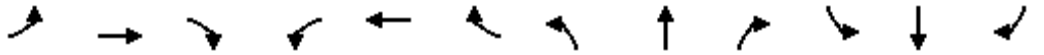
Intersection Summary	
HCM 2010 Ctrl Delay	44.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	117	75	542	164	140	45	500	586	294	615	23
Future Volume (veh/h)	29	117	75	542	164	140	45	500	586	294	615	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1624	1881	1900	1845	1837	1863	1863	1792	1863	1827	1780	1900
Adj Flow Rate, veh/h	32	130	83	392	476	156	50	556	651	327	683	26
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	17	1	1	3	4	2	2	6	2	4	7	7
Cap, veh/h	155	214	128	463	484	415	64	967	449	352	1493	57
Arrive On Green	0.10	0.10	0.10	0.26	0.26	0.26	0.04	0.28	0.28	0.20	0.45	0.45
Sat Flow, veh/h	1547	2143	1277	1757	1837	1574	1774	3406	1580	1740	3319	126
Grp Volume(v), veh/h	32	107	106	392	476	156	50	556	651	327	348	361
Grp Sat Flow(s),veh/h/ln	1547	1787	1633	1757	1837	1574	1774	1703	1580	1740	1691	1754
Q Serve(g_s), s	2.3	7.1	7.7	26.1	31.7	10.0	3.4	17.2	35.0	22.8	17.6	17.6
Cycle Q Clear(g_c), s	2.3	7.1	7.7	26.1	31.7	10.0	3.4	17.2	35.0	22.8	17.6	17.6
Prop In Lane	1.00		0.78	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	155	179	163	463	484	415	64	967	449	352	761	789
V/C Ratio(X)	0.21	0.60	0.65	0.85	0.98	0.38	0.78	0.57	1.45	0.93	0.46	0.46
Avail Cap(c_a), veh/h	351	406	371	463	484	415	130	967	449	367	761	789
HCM Platoon Ratio	1.00	1.00	1.00	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	51.0	53.1	53.4	43.0	45.1	37.1	58.9	37.7	44.1	48.3	23.5	23.5
Incr Delay (d2), s/veh	0.7	3.2	4.3	13.5	36.3	0.6	17.7	1.0	215.0	29.2	0.6	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	1.0	3.6	3.7	14.4	21.0	4.4	2.0	8.2	42.0	13.8	8.3	8.7
LnGrp Delay(d),s/veh	51.6	56.3	57.7	56.5	81.4	37.6	76.6	38.8	259.1	77.6	24.1	24.1
LnGrp LOS	D	E	E	E	F	D	E	D	F	E	C	C
Approach Vol, veh/h		245			1024			1257			1036	
Approach Delay, s/veh		56.3			65.2			154.4			41.0	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	28.9	40.0		17.3	8.5	60.4		37.0
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	26.0	35.0		28.0	9.0	52.0		32.5
Max Q Clear Time (g_c+I1), s	24.8	37.0		9.7	5.4	19.6		33.7
Green Ext Time (p_c), s	0.1	0.0		1.2	0.0	20.5		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		89.0
HCM 2010 LOS		F

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	976	13	17	794	558	12	16	6	356	11	146
Future Volume (veh/h)	157	976	13	17	794	558	12	16	6	356	11	146
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1881	1900	1792	1863	1827	1900	1675	1900	1759	1767	1776
Adj Flow Rate, veh/h	180	1122	15	20	913	0	14	18	7	418	0	168
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	1	1	6	2	4	0	12	12	8	0	7
Cap, veh/h	219	1614	22	31	1210	531	181	115	45	641	0	287
Arrive On Green	0.12	0.45	0.45	0.02	0.34	0.00	0.10	0.10	0.10	0.19	0.00	0.19
Sat Flow, veh/h	1774	3612	48	1707	3539	1553	1810	1145	445	3351	0	1500
Grp Volume(v), veh/h	180	555	582	20	913	0	14	0	25	418	0	168
Grp Sat Flow(s),veh/h/ln	1774	1787	1873	1707	1770	1553	1810	0	1591	1675	0	1500
Q Serve(g_s), s	7.9	19.9	19.9	0.9	18.3	0.0	0.6	0.0	1.1	9.2	0.0	8.2
Cycle Q Clear(g_c), s	7.9	19.9	19.9	0.9	18.3	0.0	0.6	0.0	1.1	9.2	0.0	8.2
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	219	799	837	31	1210	531	181	0	159	641	0	287
V/C Ratio(X)	0.82	0.69	0.70	0.65	0.75	0.00	0.08	0.00	0.16	0.65	0.00	0.59
Avail Cap(c_a), veh/h	277	799	837	109	1239	544	181	0	159	1341	0	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)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.2	17.7	17.7	39.0	23.3	0.0	32.6	0.0	32.9	29.9	0.0	29.5
Incr Delay (d2), s/veh	14.6	4.3	4.1	21.1	3.9	0.0	0.8	0.0	2.1	1.6	0.0	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	4.8	10.7	11.1	0.6	9.5	0.0	0.3	0.0	0.6	4.4	0.0	3.6
LnGrp Delay(d),s/veh	48.8	22.1	21.9	60.1	27.3	0.0	33.5	0.0	35.0	31.5	0.0	32.2
LnGrp LOS	D	C	C	E	C		C		C	C		C
Approach Vol, veh/h		1317			933			39			586	
Approach Delay, s/veh		25.6			28.0			34.5			31.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.0	5.9	40.7		20.3	14.4	32.3
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		8.0	5.1	35.4		32.0	12.5	28.0
Max Q Clear Time (g_c+I1), s		3.1	2.9	21.9		11.2	9.9	20.3
Green Ext Time (p_c), s		0.0	0.0	12.9		3.3	0.1	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	890	518	411	1218	0	0	0	0	46	0	220
Future Volume (veh/h)	0	890	518	411	1218	0	0	0	0	46	0	220
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1810	1881	1845	0				1827	1827	1900
Adj Flow Rate, veh/h	0	1000	582	462	1369	0				52	0	247
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	5	1	3	0				4	0	4
Cap, veh/h	0	1356	588	482	2503	0				320	0	285
Arrive On Green	0.00	0.38	0.38	0.54	1.00	0.00				0.18	0.00	0.18
Sat Flow, veh/h	0	3632	1534	1792	3597	0				1740	0	1553
Grp Volume(v), veh/h	0	1000	582	462	1369	0				52	0	247
Grp Sat Flow(s),veh/h/ln	0	1770	1534	1792	1752	0				1740	0	1553
Q Serve(g_s), s	0.0	21.9	33.9	22.2	0.0	0.0				2.3	0.0	13.9
Cycle Q Clear(g_c), s	0.0	21.9	33.9	22.2	0.0	0.0				2.3	0.0	13.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1356	588	482	2503	0				320	0	285
V/C Ratio(X)	0.00	0.74	0.99	0.96	0.55	0.00				0.16	0.00	0.87
Avail Cap(c_a), veh/h	0	1356	588	486	2503	0				445	0	397
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.70	0.70	0.25	0.25	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.9	27.6	20.3	0.0	0.0				30.9	0.0	35.7
Incr Delay (d2), s/veh	0.0	2.5	28.7	12.2	0.2	0.0				0.1	0.0	10.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.2	18.9	12.4	0.1	0.0				1.1	0.0	6.8
LnGrp Delay(d),s/veh	0.0	26.4	56.3	32.6	0.2	0.0				31.0	0.0	46.2
LnGrp LOS		C	E	C	A					C		D
Approach Vol, veh/h		1582			1831						299	
Approach Delay, s/veh		37.4			8.4						43.6	
Approach LOS		D			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	29.8	39.6		20.6		69.4		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	24.4	27.8		23.0		57.8		
Max Q Clear Time (g_c+I1), s	24.2	35.9		15.9		2.0		
Green Ext Time (p_c), s	0.0	0.0		0.6		25.6		

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	733	0	0	977	57	652	2	853	0	0	0
Future Volume (veh/h)	203	733	0	0	977	57	652	2	853	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1863	0	0	1863	1900	1845	1872	1881			
Adj Flow Rate, veh/h	226	814	0	0	1086	63	1055	0	595			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	3	2	0	0	2	2	3	0	1			
Cap, veh/h	254	1903	0	0	1204	70	1284	0	585			
Arrive On Green	0.29	1.00	0.00	0.00	0.35	0.35	0.37	0.00	0.37			
Sat Flow, veh/h	1757	3632	0	0	3493	197	3514	0	1599			
Grp Volume(v), veh/h	226	814	0	0	565	584	1055	0	595			
Grp Sat Flow(s),veh/h/ln	1757	1770	0	0	1770	1828	1757	0	1599			
Q Serve(g_s), s	11.1	0.0	0.0	0.0	27.3	27.3	24.5	0.0	32.9			
Cycle Q Clear(g_c), s	11.1	0.0	0.0	0.0	27.3	27.3	24.5	0.0	32.9			
Prop In Lane	1.00		0.00	0.00		0.11	1.00		1.00			
Lane Grp Cap(c), veh/h	254	1903	0	0	627	647	1284	0	585			
V/C Ratio(X)	0.89	0.43	0.00	0.00	0.90	0.90	0.82	0.00	1.02			
Avail Cap(c_a), veh/h	256	1903	0	0	627	647	1284	0	585			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.62	0.62	0.00	0.00	0.86	0.86	1.00	0.00	1.00			
Uniform Delay (d), s/veh	31.3	0.0	0.0	0.0	27.6	27.6	25.9	0.0	28.6			
Incr Delay (d2), s/veh	19.7	0.4	0.0	0.0	16.5	16.2	4.6	0.0	41.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.7	0.1	0.0	0.0	16.2	16.7	12.7	0.0	21.2			
LnGrp Delay(d),s/veh	51.0	0.4	0.0	0.0	44.1	43.8	30.5	0.0	70.4			
LnGrp LOS	D	A			D	D	C		F			
Approach Vol, veh/h		1040			1149			1650				
Approach Delay, s/veh		11.4			43.9			44.9				
Approach LOS		B			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		53.0			16.5	36.5		37.0
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		48.4			13.1	31.8		32.9
Max Q Clear Time (g_c+I1), s		2.0			13.1	29.3		34.9
Green Ext Time (p_c), s		13.1			0.0	2.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	1491	61	11	893	0	140	0	26	0	0	0
Future Volume (veh/h)	49	1491	61	11	893	0	140	0	26	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1875	1900	1583	1863	0	1845	0	1638			
Adj Flow Rate, veh/h	56	1714	70	13	1026	0	161	0	30			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	1	1	20	2	0	3	0	16			
Cap, veh/h	101	2381	97	19	2266	0	210	0	166			
Arrive On Green	0.06	0.68	0.68	0.01	0.64	0.00	0.12	0.00	0.12			
Sat Flow, veh/h	1810	3485	142	1508	3632	0	1757	0	1392			
Grp Volume(v), veh/h	56	871	913	13	1026	0	161	0	30			
Grp Sat Flow(s),veh/h/ln	1810	1781	1846	1508	1770	0	1757	0	1392			
Q Serve(g_s), s	2.2	22.2	22.7	0.6	10.7	0.0	6.5	0.0	1.4			
Cycle Q Clear(g_c), s	2.2	22.2	22.7	0.6	10.7	0.0	6.5	0.0	1.4			
Prop In Lane	1.00		0.08	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	101	1217	1261	19	2266	0	210	0	166			
V/C Ratio(X)	0.56	0.72	0.72	0.68	0.45	0.00	0.77	0.00	0.18			
Avail Cap(c_a), veh/h	173	1217	1261	115	2333	0	512	0	406			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.6	7.2	7.3	35.9	6.7	0.0	31.2	0.0	29.0			
Incr Delay (d2), s/veh	4.7	2.8	2.8	34.7	0.4	0.0	5.8	0.0	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			
%ile BackOfQ(50%),veh/ln	1.2	11.6	12.2	0.4	5.3	0.0	3.5	0.0	0.6			
LnGrp Delay(d),s/veh	38.3	10.0	10.1	70.6	7.1	0.0	37.0	0.0	29.5			
LnGrp LOS	D	A	B	E	A		D		C			
Approach Vol, veh/h		1840			1039			191				
Approach Delay, s/veh		10.9			7.8			35.8				
Approach LOS		B			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	4.9	55.0			8.1	51.8		13.2
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.6	49.6			7.0	48.2		21.3
Max Q Clear Time (g_c+I1), s	2.6	24.7			4.2	12.7		8.5
Green Ext Time (p_c), s	0.0	24.6			0.0	34.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	16	833	1398	4
Future Vol, veh/h	0	0	16	833	1398	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	17	877	1472	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	738	1476	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	365	462	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	365	462	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	462	-	-	-	-
HCM Lane V/C Ratio	0.036	-	-	-	-
HCM Control Delay (s)	13.1	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	99	126	92	171	278	96
Future Vol, veh/h	99	126	92	171	278	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	370	-	220	-	-	-
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	108	137	100	186	302	104

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	647	203	407	0	-	0
Stage 1	354	-	-	-	-	-
Stage 2	293	-	-	-	-	-
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	404	804	1148	-	-	-
Stage 1	681	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	369	804	1148	-	-	-
Mov Cap-2 Maneuver	369	-	-	-	-	-
Stage 1	681	-	-	-	-	-
Stage 2	667	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.1	3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1148	-	369	804	-	-
HCM Lane V/C Ratio	0.087	-	0.292	0.17	-	-
HCM Control Delay (s)	8.4	-	18.7	10.4	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.2	0.6	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	524	923	41	13	636	135	161	13	21	12	4	63
Future Volume (veh/h)	524	923	41	13	636	135	161	13	21	12	4	63
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	570	1003	45	14	691	147	175	14	23	13	42	42
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	613	1632	73	263	834	177	221	79	130	22	72	81
Arrive On Green	0.35	0.47	0.47	0.15	0.29	0.29	0.12	0.12	0.12	0.05	0.05	0.05
Sat Flow, veh/h	1774	3450	155	1774	2906	618	1774	635	1043	435	1406	1583
Grp Volume(v), veh/h	570	514	534	14	421	417	175	0	37	55	0	42
Grp Sat Flow(s),veh/h/ln	1774	1770	1835	1774	1770	1754	1774	0	1679	1841	0	1583
Q Serve(g_s), s	27.5	19.2	19.2	0.6	19.7	19.8	8.5	0.0	1.8	2.6	0.0	2.3
Cycle Q Clear(g_c), s	27.5	19.2	19.2	0.6	19.7	19.8	8.5	0.0	1.8	2.6	0.0	2.3
Prop In Lane	1.00		0.08	1.00		0.35	1.00		0.62	0.24		1.00
Lane Grp Cap(c), veh/h	613	837	868	263	508	503	221	0	210	94	0	81
V/C Ratio(X)	0.93	0.61	0.61	0.05	0.83	0.83	0.79	0.00	0.18	0.58	0.00	0.52
Avail Cap(c_a), veh/h	719	1156	1199	263	538	533	599	0	567	104	0	89
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	28.0	17.4	17.4	32.5	29.6	29.6	37.7	0.0	34.8	41.2	0.0	41.1
Incr Delay (d2), s/veh	17.0	2.7	2.6	0.1	13.2	13.4	6.2	0.0	0.4	6.8	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	16.4	9.9	10.3	0.3	11.4	11.4	4.6	0.0	0.8	1.5	0.0	1.1
LnGrp Delay(d),s/veh	45.1	20.0	20.0	32.5	42.8	43.0	43.9	0.0	35.2	48.0	0.0	46.1
LnGrp LOS	D	C	B	C	D	D	D		D	D		D
Approach Vol, veh/h		1618			852			212			97	
Approach Delay, s/veh		28.8			42.8			42.4			47.2	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.2	47.0		15.1	34.7	30.5		8.5
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 58		30.0	36.0	27.0		5.0
Max Q Clear Time (g_c+I1), s	2.6	21.2		10.5	29.5	21.8		4.6
Green Ext Time (p_c), s	1.8	20.8		0.6	1.2	3.7		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		34.8
HCM 2010 LOS		C

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	153	54	795	155	54	1344
Future Volume (veh/h)	153	54	795	155	54	1344
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	166	59	864	168	59	1461
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	348	160	2810	1035	102	2499
Arrive On Green	0.10	0.10	0.55	0.55	0.06	0.71
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	166	59	864	168	59	1461
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	2.1	1.6	4.3	1.9	1.5	9.7
Cycle Q Clear(g_c), s	2.1	1.6	4.3	1.9	1.5	9.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	348	160	2810	1035	102	2499
V/C Ratio(X)	0.48	0.37	0.31	0.16	0.58	0.58
Avail Cap(c_a), veh/h	1326	610	2810	1035	239	2499
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.8	19.6	5.6	3.1	21.5	3.4
Incr Delay (d2), s/veh	1.0	1.4	0.3	0.3	5.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.8	2.1	1.2	0.9	4.8
LnGrp Delay(d),s/veh	20.8	21.0	5.9	3.5	26.6	4.4
LnGrp LOS	C	C	A	A	C	A
Approach Vol, veh/h	225		1032			1520
Approach Delay, s/veh	20.9		5.5			5.3
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.2	30.3				37.5		9.2
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	6.3	22.2				33.0		18.0
Max Q Clear Time (g_c+I1), s	3.5	6.3				11.7		4.1
Green Ext Time (p_c), s	0.0	13.4				17.2		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	239	0	0	223	0	0
Future Vol, veh/h	239	0	0	223	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	-	-	-	-	-	-
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	260	0	0	242	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	260
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	779
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	779
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	
Intersection Delay, s/veh	43.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	250	532	159	228	0	305	0	79	1	0	1
Future Vol, veh/h	0	250	532	159	228	0	305	0	79	1	0	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	13	5	7	13	0	9	0	4	0	0	0
Mvmt Flow	0	278	591	177	253	0	339	0	88	1	0	1
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	61.8	18.2	30.9	12.2
HCM LOS	F	C	D	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	0%	100%	0%	50%
Vol Thru, %	0%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	100%	0%	100%	0%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	305	79	250	532	159	228	2
LT Vol	305	0	0	0	159	0	1
Through Vol	0	0	250	0	0	228	0
RT Vol	0	79	0	532	0	0	1
Lane Flow Rate	339	88	278	591	177	253	2
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.786	0.17	0.567	1.066	0.399	0.543	0.006
Departure Headway (Hd)	8.481	7.094	7.347	6.49	8.284	7.874	9.139
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	430	509	494	562	436	461	394
Service Time	6.181	4.794	5.047	4.19	5.984	5.574	7.139
HCM Lane V/C Ratio	0.788	0.173	0.563	1.052	0.406	0.549	0.005
HCM Control Delay	36	11.2	19.2	81.8	16.4	19.5	12.2
HCM Lane LOS	E	B	C	F	C	C	B
HCM 95th-tile Q	6.9	0.6	3.5	17.4	1.9	3.2	0

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	79	426	5	111	978
Future Vol, veh/h	4	79	426	5	111	978
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	9	0	1	3
Mvmt Flow	4	87	468	5	122	1075

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1790	471	0	0	474	0
Stage 1	471	-	-	-	-	-
Stage 2	1319	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	90	597	-	-	1093	-
Stage 1	632	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	80	597	-	-	1093	-
Mov Cap-2 Maneuver	80	-	-	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	224	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	455	1093	-
HCM Lane V/C Ratio	-	-	0.2	0.112	-
HCM Control Delay (s)	-	-	14.9	8.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.4	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	1	40	2	3	2	427	42	3	991	2
Future Vol, veh/h	1	1	1	40	2	3	2	427	42	3	991	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	-	-	30	-	-	30	105	-	210	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	1	1	1	47	2	4	2	502	49	4	1166	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1682	1681	1167	1682	1682	502	1168	0	0	502	0	0
Stage 1	1174	1174	-	507	507	-	-	-	-	-	-	-
Stage 2	508	507	-	1175	1175	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	76	96	238	76	95	573	605	-	-	1073	-	-
Stage 1	236	268	-	552	543	-	-	-	-	-	-	-
Stage 2	551	543	-	236	268	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	74	95	238	75	94	573	605	-	-	1073	-	-
Mov Cap-2 Maneuver	74	95	-	75	94	-	-	-	-	-	-	-
Stage 1	235	267	-	550	541	-	-	-	-	-	-	-
Stage 2	543	541	-	233	267	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39.8	108.4	0	0
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	605	-	-	83	238	76	573	1073	-	-
HCM Lane V/C Ratio	0.004	-	-	0.028	0.005	0.65	0.006	0.003	-	-
HCM Control Delay (s)	11	-	-	49.6	20.2	115.3	11.3	8.4	-	-
HCM Lane LOS	B	-	-	E	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	3	0	0	-	-

Intersection	
Intersection Delay, s/veh	23.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	97	22	182	105	26	10	82	176	25	5	289	99
Future Vol, veh/h	97	22	182	105	26	10	82	176	25	5	289	99
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	4	9	6	0	0	0	5	8	4	0	3	8
Mvmt Flow	120	27	225	130	32	12	101	217	31	6	357	122
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	17.9	20	20.9	32
HCM LOS	C	C	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	82%	0%	74%	100%	0%	0%
Vol Thru, %	0%	88%	18%	0%	18%	0%	100%	0%
Vol Right, %	0%	12%	0%	100%	7%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	82	201	119	182	141	5	289	99
LT Vol	82	0	97	0	105	5	0	0
Through Vol	0	176	22	0	26	0	289	0
RT Vol	0	25	0	182	10	0	0	99
Lane Flow Rate	101	248	147	225	174	6	357	122
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.258	0.594	0.369	0.499	0.457	0.015	0.818	0.259
Departure Headway (Hd)	9.176	8.619	9.053	8.001	9.445	8.712	8.249	7.614
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	392	419	398	449	381	411	439	472
Service Time	6.933	6.375	6.808	5.757	7.206	6.461	5.998	5.364
HCM Lane V/C Ratio	0.258	0.592	0.369	0.501	0.457	0.015	0.813	0.258
HCM Control Delay	15.1	23.3	17	18.5	20	11.6	38.8	13
HCM Lane LOS	C	C	C	C	C	B	E	B
HCM 95th-tile Q	1	3.7	1.7	2.7	2.3	0	7.6	1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	17	292	593	0
Future Vol, veh/h	0	9	17	292	593	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	0	12	23	395	801	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1242	801	801	0	-	0
Stage 1	801	-	-	-	-	-
Stage 2	441	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	195	388	831	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	190	388	831	-	-	-
Mov Cap-2 Maneuver	190	-	-	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	635	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	831	-	388	-	-
HCM Lane V/C Ratio	0.028	-	0.031	-	-
HCM Control Delay (s)	9.5	-	14.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	65.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	86	114	195	127	242	360
Future Vol, veh/h	86	114	195	127	242	360
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	4	2	5	4
Mvmt Flow	121	161	275	179	341	507

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1553	364	0	0	454	0
Stage 1	364	-	-	-	-	-
Stage 2	1189	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245	-
Pot Cap-1 Maneuver	126	685	-	-	1091	-
Stage 1	707	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 87	685	-	-	1091	-
Mov Cap-2 Maneuver	~ 87	-	-	-	-	-
Stage 1	707	-	-	-	-	-
Stage 2	201	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 354.9	0	3.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	173	1091	-
HCM Lane V/C Ratio	-	-	1.628	0.312	-
HCM Control Delay (s)	-	-	$ 354.9	9.8	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	19.1	1.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	67	275	113	150	350
Future Vol, veh/h	30	67	275	113	150	350
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	0	0	3	1	0	2
Mvmt Flow	50	112	458	188	250	583

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1636	553	0	0	647	0
Stage 1	553	-	-	-	-	-
Stage 2	1083	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	112	537	-	-	948	-
Stage 1	580	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	82	537	-	-	948	-
Mov Cap-2 Maneuver	82	-	-	-	-	-
Stage 1	580	-	-	-	-	-
Stage 2	242	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	40.8	0	3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	82	537	948	-
HCM Lane V/C Ratio	-	-	0.61	0.208	0.264	-
HCM Control Delay (s)	-	-	101.7	13.5	10.2	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	2.8	0.8	1.1	-

Intersection	
Int Delay, s/veh	82.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	3	127	0	103	3	285	129	109	267	4
Future Vol, veh/h	0	0	3	127	0	103	3	285	129	109	267	4
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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	2	0
Mvmt Flow	0	0	4	187	0	151	4	419	190	160	393	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1315	1334	396	1241	1242	514	399	0	0	609	0	0
Stage 1	716	716	-	523	523	-	-	-	-	-	-	-
Stage 2	599	618	-	718	719	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	136	155	658	~ 153	176	564	1171	-	-	979	-	-
Stage 1	424	437	-	541	534	-	-	-	-	-	-	-
Stage 2	492	484	-	423	436	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	87	129	658	~ 133	147	564	1171	-	-	979	-	-
Mov Cap-2 Maneuver	87	129	-	~ 133	147	-	-	-	-	-	-	-
Stage 1	423	366	-	539	532	-	-	-	-	-	-	-
Stage 2	359	482	-	351	365	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	$ 365.5	0.1	2.7
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1171	-	-	658	202	979	-	-
HCM Lane V/C Ratio	0.004	-	-	0.007	1.674	0.164	-	-
HCM Control Delay (s)	8.1	-	-	10.5	$ 365.5	9.4	-	-
HCM Lane LOS	A	-	-	B	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	22.6	0.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	9.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	161	60	357	304	111	286
Future Vol, veh/h	161	60	357	304	111	286
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	3	1	1	2
Mvmt Flow	218	81	482	411	150	386

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1374	688	0	0	893	0
Stage 1	688	-	-	-	-	-
Stage 2	686	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	~ 162	450	-	-	764	-
Stage 1	503	-	-	-	-	-
Stage 2	504	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 130	450	-	-	764	-
Mov Cap-2 Maneuver	263	-	-	-	-	-
Stage 1	503	-	-	-	-	-
Stage 2	405	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	48.5	0	3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	263	450	764	-
HCM Lane V/C Ratio	-	-	0.827	0.18	0.196	-
HCM Control Delay (s)	-	-	61.1	14.8	10.9	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	6.6	0.7	0.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	40	57	642	467	0
Future Vol, veh/h	1	40	57	642	467	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	19	9	3	3	0
Mvmt Flow	1	54	77	868	631	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1653	631	631	0	-	0
Stage 1	631	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Critical Hdwy	6.4	6.39	4.19	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.471	2.281	-	-	-
Pot Cap-1 Maneuver	109	452	919	-	-	-
Stage 1	534	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	100	452	919	-	-	-
Mov Cap-2 Maneuver	225	-	-	-	-	-
Stage 1	534	-	-	-	-	-
Stage 2	321	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.3	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	919	-	441	-	-
HCM Lane V/C Ratio	0.084	-	0.126	-	-
HCM Control Delay (s)	9.3	-	14.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.4	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	190	1	1	15	142	752	5	22	639	20
Future Vol, veh/h	0	0	190	1	1	15	142	752	5	22	639	20
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	2	0	0	7	3	4	0	0	6	20
Mvmt Flow	0	0	200	1	1	16	149	792	5	23	673	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	673	1812	1812	794	673	0	0	797	0	0
Stage 1	-	-	-	1093	1093	-	-	-	-	-	-	-
Stage 2	-	-	-	719	719	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.1	6.5	6.27	4.13	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.5	4	3.363	2.227	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	455	61	79	380	913	-	-	834	-	-
Stage 1	0	0	-	262	293	-	-	-	-	-	-	-
Stage 2	0	0	-	423	436	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	455	29	64	380	913	-	-	834	-	-
Mov Cap-2 Maneuver	-	-	-	29	64	-	-	-	-	-	-	-
Stage 1	-	-	-	219	245	-	-	-	-	-	-	-
Stage 2	-	-	-	231	424	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19	25.9	1.5	0.3
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	913	-	-	455	190	834	-	-
HCM Lane V/C Ratio	0.164	-	-	0.44	0.094	0.028	-	-
HCM Control Delay (s)	9.7	-	-	19	25.9	9.4	-	-
HCM Lane LOS	A	-	-	C	D	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	2.2	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	239	1	3	223	5	5
Future Vol, veh/h	239	1	3	223	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	260	1	3	242	5	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	261	0	509	260
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	249	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1303	-	524	779
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1303	-	523	779
Mov Cap-2 Maneuver	-	-	-	-	598	-
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	790	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	677	-	-	1303	-
HCM Lane V/C Ratio	0.016	-	-	0.003	-
HCM Control Delay (s)	10.4	-	-	7.8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	122	419	154	105	49	358	419	184	48	363	87
Future Volume (veh/h)	63	122	419	154	105	49	358	419	184	48	363	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1827	1845	1827	1814	1900	1759	1845	1845	1863	1823	1900
Adj Flow Rate, veh/h	71	137	471	173	118	55	402	471	207	54	408	98
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	4	3	4	6	6	8	3	3	2	5	5
Cap, veh/h	460	488	409	243	163	76	407	715	599	69	491	117
Arrive On Green	0.27	0.27	0.27	0.14	0.14	0.14	0.24	0.39	0.39	0.04	0.18	0.18
Sat Flow, veh/h	1723	1827	1534	1740	1164	543	1675	1845	1546	1774	2746	651
Grp Volume(v), veh/h	71	137	471	173	0	173	402	471	207	54	255	251
Grp Sat Flow(s),veh/h/ln	1723	1827	1534	1740	0	1707	1675	1845	1546	1774	1732	1666
Q Serve(g_s), s	3.3	6.2	28.0	10.0	0.0	10.2	25.1	22.0	9.9	3.2	14.9	15.3
Cycle Q Clear(g_c), s	3.3	6.2	28.0	10.0	0.0	10.2	25.1	22.0	9.9	3.2	14.9	15.3
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	460	488	409	243	0	238	407	715	599	69	310	298
V/C Ratio(X)	0.15	0.28	1.15	0.71	0.00	0.73	0.99	0.66	0.35	0.78	0.82	0.84
Avail Cap(c_a), veh/h	460	488	409	464	0	456	407	715	599	101	338	325
HCM Platoon Ratio	1.00	1.00	1.00	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	29.4	30.5	38.5	43.1	0.0	43.2	39.6	26.4	22.7	50.0	41.5	41.6
Incr Delay (d2), s/veh	0.1	0.1	92.4	1.5	0.0	1.6	41.1	1.8	0.1	11.5	12.9	15.2
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	3.2	22.3	4.9	0.0	4.9	16.3	11.6	4.3	1.8	8.2	8.3
LnGrp Delay(d),s/veh	29.5	30.6	130.9	44.6	0.0	44.8	80.7	28.2	22.8	61.5	54.4	56.8
LnGrp LOS	C	C	F	D		D	F	C	C	E	D	E
Approach Vol, veh/h		679			346			1080			560	
Approach Delay, s/veh		100.0			44.7			46.7			56.2	
Approach LOS		F			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.1	46.2		32.0	30.0	24.3		18.7
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	6.0	40.5		28.0	25.5	20.5		28.0
Max Q Clear Time (g_c+I1), s	5.2	24.0		30.0	27.1	17.3		12.2
Green Ext Time (p_c), s	0.0	4.3		0.0	0.0	1.3		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	62.0
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	27	16	71	14	450	22	669	80	388	706	12
Future Volume (veh/h)	11	27	16	71	14	450	22	669	80	388	706	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1839	1845	1900	1845	1827	1863	1863	1900
Adj Flow Rate, veh/h	12	29	17	76	15	479	23	712	85	413	751	13
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	3	0	3	4	2	2	2
Cap, veh/h	90	196	98	320	57	720	28	745	621	446	1168	20
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.02	0.40	0.40	0.25	0.64	0.64
Sat Flow, veh/h	195	939	470	1172	270	1560	1810	1845	1538	1774	1825	32
Grp Volume(v), veh/h	58	0	0	91	0	479	23	712	85	413	0	764
Grp Sat Flow(s),veh/h/ln	1604	0	0	1442	0	1560	1810	1845	1538	1774	0	1857
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	18.5	1.1	33.1	3.1	20.1	0.0	22.3
Cycle Q Clear(g_c), s	2.3	0.0	0.0	4.2	0.0	18.5	1.1	33.1	3.1	20.1	0.0	22.3
Prop In Lane	0.21		0.29	0.84		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	385	0	0	377	0	720	28	745	621	446	0	1188
V/C Ratio(X)	0.15	0.00	0.00	0.24	0.00	0.66	0.83	0.96	0.14	0.93	0.00	0.64
Avail Cap(c_a), veh/h	385	0	0	377	0	720	113	762	635	462	0	1188
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	0.0	29.2	0.0	18.6	43.4	25.6	16.6	32.3	0.0	9.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	2.3	20.6	22.2	0.1	24.3	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	1.2	0.0	0.0	1.9	0.0	9.5	0.7	21.4	1.3	12.8	0.0	11.6
LnGrp Delay(d),s/veh	28.7	0.0	0.0	29.5	0.0	20.9	64.0	47.8	16.7	56.6	0.0	10.9
LnGrp LOS	C			C		C	E	D	B	E		B
Approach Vol, veh/h		58			570			820			1177	
Approach Delay, s/veh		28.7			22.3			45.0			26.9	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	26.2	39.7		22.5	5.3	60.6		22.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	23.0	36.5		18.5	5.5	54.0		18.5
Max Q Clear Time (g_c+I1), s	22.1	35.1		4.3	3.1	24.3		20.5
Green Ext Time (p_c), s	0.1	0.6		2.4	0.0	13.8		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		31.6
HCM 2010 LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	49	76	105	35	60	105	444	126	46	191	333
Future Volume (veh/h)	59	49	76	105	35	60	105	444	126	46	191	333
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1869	1900	1881	1876	1900	1827	1853	1900	1900	1845	1863
Adj Flow Rate, veh/h	63	52	81	112	37	64	112	472	134	49	203	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	0	0	4	3	3	0	3	2
Cap, veh/h	136	112	221	250	86	149	158	812	229	96	483	414
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.09	0.30	0.30	0.05	0.26	0.00
Sat Flow, veh/h	997	823	1615	1792	618	1069	1740	2713	765	1810	1845	1583
Grp Volume(v), veh/h	115	0	81	112	0	101	112	305	301	49	203	0
Grp Sat Flow(s),veh/h/ln	1819	0	1615	1792	0	1688	1740	1760	1718	1810	1845	1583
Q Serve(g_s), s	2.2	0.0	1.8	2.2	0.0	2.1	2.4	5.7	5.7	1.0	3.5	0.0
Cycle Q Clear(g_c), s	2.2	0.0	1.8	2.2	0.0	2.1	2.4	5.7	5.7	1.0	3.5	0.0
Prop In Lane	0.55		1.00	1.00		0.63	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	249	0	221	250	0	236	158	527	514	96	483	414
V/C Ratio(X)	0.46	0.00	0.37	0.45	0.00	0.43	0.71	0.58	0.59	0.51	0.42	0.00
Avail Cap(c_a), veh/h	1204	0	1069	856	0	806	881	1590	1552	329	1068	916
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	15.3	0.0	15.1	15.2	0.0	15.2	17.0	11.4	11.5	17.8	11.8	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.4	0.5	0.0	0.5	2.2	0.5	0.6	1.6	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	1.2	0.0	0.8	1.1	0.0	1.0	1.2	2.8	2.8	0.5	1.8	0.0
LnGrp Delay(d),s/veh	15.8	0.0	15.5	15.7	0.0	15.6	19.2	12.0	12.0	19.3	12.1	0.0
LnGrp LOS	B		B	B		B	B	B	B	B	B	
Approach Vol, veh/h		196			213			718			252	
Approach Delay, s/veh		15.7			15.6			13.1			13.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	15.2		8.8	6.5	13.8		9.5
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	7.0	34.8		25.5	19.5	22.3		18.4
Max Q Clear Time (g_c+I1), s	3.0	7.7		4.2	4.4	5.5		4.2
Green Ext Time (p_c), s	0.0	3.8		0.4	0.1	3.4		0.4

Intersection Summary		
HCM 2010 Ctrl Delay		14.0
HCM 2010 LOS		B

Intersection	
Int Delay, s/veh	30.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	122	426	249	88	123	249
Future Vol, veh/h	122	426	249	88	123	249
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	93	93	93	93	93	93
Heavy Vehicles, %	1	3	3	2	4	1
Mvmt Flow	131	458	268	95	132	268

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	800	268	0	0	268	0
Stage 1	268	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Critical Hdwy	6.41	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	356	768	-	-	1284	-
Stage 1	779	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	313	768	-	-	1284	-
Mov Cap-2 Maneuver	313	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	519	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	68.2	0	2.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	580	1284	-
HCM Lane V/C Ratio	-	-	1.016	0.103	-
HCM Control Delay (s)	-	-	68.2	8.1	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	15.5	0.3	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	188	46	55	215	61	84
Future Vol, veh/h	188	46	55	215	61	84
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, %	1	3	2	6	5	4
Mvmt Flow	204	50	60	234	66	91

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	254	0	582	229
Stage 1	-	-	-	-	229	-
Stage 2	-	-	-	-	353	-
Critical Hdwy	-	-	4.12	-	6.45	6.24
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.336
Pot Cap-1 Maneuver	-	-	1311	-	470	805
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	705	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1311	-	445	805
Mov Cap-2 Maneuver	-	-	-	-	445	-
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	668	-

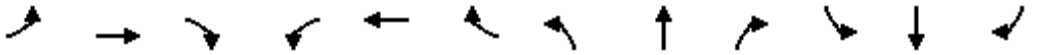
Approach	EB	WB	NB
HCM Control Delay, s	0	1.6	13.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	601	-	-	1311	-
HCM Lane V/C Ratio	0.262	-	-	0.046	-
HCM Control Delay (s)	13.1	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	282	182	488	303	44	161	1142	457	23	770	161
Future Volume (veh/h)	189	282	182	488	303	44	161	1142	457	23	770	161
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1827	1845	1845	1863	1810	1810	1881	1845	1743	1863	1810
Adj Flow Rate, veh/h	212	317	204	548	340	49	181	1283	513	26	865	181
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	1	4	3	3	2	5	5	1	3	9	2	5
Cap, veh/h	246	412	354	560	470	383	182	1359	854	35	1045	665
Arrive On Green	0.14	0.23	0.23	0.16	0.25	0.25	0.11	0.38	0.38	0.02	0.30	0.30
Sat Flow, veh/h	1792	1827	1568	3408	1863	1518	1723	3574	1568	1660	3539	1538
Grp Volume(v), veh/h	212	317	204	548	340	49	181	1283	513	26	865	181
Grp Sat Flow(s),veh/h/ln	1792	1827	1568	1704	1863	1518	1723	1787	1568	1660	1770	1538
Q Serve(g_s), s	11.1	15.5	11.1	15.3	16.0	2.4	10.0	33.2	21.2	1.5	21.8	7.2
Cycle Q Clear(g_c), s	11.1	15.5	11.1	15.3	16.0	2.4	10.0	33.2	21.2	1.5	21.8	7.2
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	246	412	354	560	470	383	182	1359	854	35	1045	665
V/C Ratio(X)	0.86	0.77	0.58	0.98	0.72	0.13	0.99	0.94	0.60	0.75	0.83	0.27
Avail Cap(c_a), veh/h	272	459	394	560	491	400	182	1359	854	87	1118	697
HCM Platoon Ratio	1.00	1.00	1.00	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	40.4	34.7	33.0	39.8	32.7	27.6	42.7	28.6	14.7	46.6	31.4	17.4
Incr Delay (d2), s/veh	22.2	9.0	3.3	32.6	6.3	0.3	64.9	13.6	1.8	27.2	5.8	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	7.0	8.9	5.1	9.7	9.0	1.0	8.0	18.8	9.5	0.9	11.4	3.2
LnGrp Delay(d),s/veh	62.6	43.7	36.3	72.4	39.0	27.9	107.6	42.3	16.5	73.8	37.2	17.9
LnGrp LOS	E	D	D	E	D	C	F	D	B	E	D	B
Approach Vol, veh/h		733			937			1977			1072	
Approach Delay, s/veh		47.1			57.9			41.6			34.8	
Approach LOS		D			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	41.8	20.2	27.1	14.6	33.7	17.6	29.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	35.3	15.7	24.0	10.1	30.2	14.5	25.2
Max Q Clear Time (g_c+I1), s	3.5	35.2	17.3	17.5	12.0	23.8	13.1	18.0
Green Ext Time (p_c), s	0.0	0.1	0.0	4.0	0.0	4.5	0.1	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	44.1
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	0	307	556	137	480	418	1639	392	0	2008	209
Future Volume (veh/h)	200	0	307	556	137	480	418	1639	392	0	2008	209
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1863	1845	1832	1810	1881	1845	1863	0	1792	1881
Adj Flow Rate, veh/h	213	0	327	591	420	328	445	1744	417	0	2136	222
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	3	2	5	1	3	2	0	6	1
Cap, veh/h	174	0	0	1305	444	372	338	2793	878	0	1637	535
Arrive On Green	0.10	0.00	0.00	0.37	0.24	0.24	0.38	1.00	1.00	0.00	0.33	0.33
Sat Flow, veh/h	1810	213		3514	1832	1538	1792	5036	1583	0	5055	1599
Grp Volume(v), veh/h	213	209.8		591	420	328	445	1744	417	0	2136	222
Grp Sat Flow(s),veh/h/ln	1810	F		1757	1832	1538	1792	1679	1583	0	1631	1599
Q Serve(g_s), s	14.4			19.1	33.8	30.8	28.3	0.0	0.0	0.0	50.2	16.1
Cycle Q Clear(g_c), s	14.4			19.1	33.8	30.8	28.3	0.0	0.0	0.0	50.2	16.1
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	174			1305	444	372	338	2793	878	0	1637	535
V/C Ratio(X)	1.23			0.45	0.95	0.88	1.32	0.62	0.47	0.00	1.30	0.42
Avail Cap(c_a), veh/h	174			1368	476	400	338	2793	878	0	1637	535
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	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	0.15	0.15
Uniform Delay (d), s/veh	67.8			35.6	55.9	54.8	46.7	0.0	0.0	0.0	49.9	38.6
Incr Delay (d2), s/veh	142.0			0.1	26.7	17.9	161.9	1.1	1.8	0.0	137.9	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
%ile BackOfQ(50%),veh/ln	14.0			9.3	20.4	15.0	29.1	0.3	0.4	0.0	43.5	7.1
LnGrp Delay(d),s/veh	209.8			35.7	82.6	72.7	208.6	1.1	1.8	0.0	187.8	38.9
LnGrp LOS	F			D	F	E	F	A	A		F	D
Approach Vol, veh/h					1339			2606			2358	
Approach Delay, s/veh					59.5			36.6			173.8	
Approach LOS					E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		89.4	60.6		33.0	56.4	19.0	41.6
Change Period (Y+Rc), s		6.2	4.9		* 4.7	6.2	4.6	5.3
Max Green Setting (Gmax), s		80.5	58.4		* 28	47.5	14.4	39.0
Max Q Clear Time (g_c+I1), s		2.0	21.1		30.3	52.2	16.4	35.8
Green Ext Time (p_c), s		34.5	0.4		0.0	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	96.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	142	199	0	124	0	1638	188	115	1325	0
Future Volume (vph)	0	0	142	199	0	124	0	1638	188	115	1325	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.95	
Frpb, ped/bikes			0.97	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1583	1770		1553		5085	1615	1787	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1583	1770		1553		5085	1615	1787	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	148	207	0	129	0	1706	196	120	1380	0
RTOR Reduction (vph)	0	0	142	0	0	93	0	0	84	0	0	0
Lane Group Flow (vph)	0	0	6	207	0	36	0	1706	112	120	1380	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	Perm
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			2
Actuated Green, G (s)			2.3	9.4		16.2		24.2	33.6	4.9	33.1	
Effective Green, g (s)			2.3	9.4		16.2		24.2	33.6	4.9	33.1	
Actuated g/C Ratio			0.04	0.16		0.28		0.41	0.57	0.08	0.56	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			61	282		427		2092	922	148	1992	
v/s Ratio Prot				c0.12				c0.34	0.02	0.07	c0.39	
v/s Ratio Perm			0.00			c0.02			0.05			
v/c Ratio			0.09	0.73		0.08		0.82	0.12	0.81	0.69	
Uniform Delay, d1			27.2	23.5		15.8		15.3	5.8	26.5	9.2	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.7	9.5		0.1		2.7	0.1	26.2	1.1	
Delay (s)			27.9	33.0		15.9		18.0	5.9	52.7	10.4	
Level of Service			C	C		B		B	A	D	B	
Approach Delay (s)		27.9			26.4			16.8			13.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	58.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	26	368	107	24	33	358	1851	69	61	1752	126
Future Volume (veh/h)	197	26	368	107	24	33	358	1851	69	61	1752	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1863	1863	1863	1881
Adj Flow Rate, veh/h	210	28	391	114	26	35	381	1969	73	65	1864	134
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	1
Cap, veh/h	240	303	454	140	207	172	412	2039	912	84	1360	606
Arrive On Green	0.13	0.17	0.17	0.08	0.11	0.11	0.24	0.58	0.58	0.05	0.38	0.38
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	3539	1582	1774	3539	1577
Grp Volume(v), veh/h	210	28	391	114	26	35	381	1969	73	65	1864	134
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1770	1582	1774	1770	1577
Q Serve(g_s), s	14.8	1.7	18.1	8.3	1.7	2.7	28.1	69.2	2.7	4.7	50.0	7.4
Cycle Q Clear(g_c), s	14.8	1.7	18.1	8.3	1.7	2.7	28.1	69.2	2.7	4.7	50.0	7.4
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	240	303	454	140	207	172	412	2039	912	84	1360	606
V/C Ratio(X)	0.87	0.09	0.86	0.81	0.13	0.20	0.92	0.97	0.08	0.77	1.37	0.22
Avail Cap(c_a), veh/h	417	421	630	405	421	351	596	2039	912	273	1360	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	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	55.4	46.0	52.8	58.9	51.9	52.4	48.3	26.3	12.3	61.3	40.1	27.0
Incr Delay (d2), s/veh	9.8	0.1	8.8	10.7	0.3	0.6	15.7	13.0	0.1	14.0	171.7	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	8.1	0.9	7.4	4.5	0.9	1.2	15.1	37.3	1.2	2.6	56.8	3.3
LnGrp Delay(d),s/veh	65.2	46.1	61.6	69.6	52.2	53.0	64.1	39.3	12.3	75.3	211.7	27.4
LnGrp LOS	E	D	E	E	D	D	E	D	B	E	F	C
Approach Vol, veh/h		629			175			2423			2063	
Approach Delay, s/veh		62.1			63.7			42.4			195.5	
Approach LOS		E			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	80.0	14.4	25.6	35.2	55.0	21.3	18.7
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	6.7	71.2	10.3	20.1	30.1	52.0	16.8	4.7
Green Ext Time (p_c), s	0.1	0.0	0.3	1.5	1.1	0.0	0.5	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	105.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	728	276	151	199	0	464	0	1852	177	393	1237	621
Future Volume (veh/h)	728	276	151	199	0	464	0	1852	177	393	1237	621
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1881	0	1881	0	1827	1900	1881	1845	1881
Adj Flow Rate, veh/h	766	291	159	209	0	488	0	1949	186	414	1302	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	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	0	2	1	0	1	0	4	0	1	3	1
Cap, veh/h	912	422	185	210	0	0	0	2010	516	1049	2324	1060
Arrive On Green	0.27	0.12	0.12	0.12	0.00	0.00	0.00	0.32	0.32	0.60	1.00	0.00
Sat Flow, veh/h	3442	3610	1583	1792	209		0	6540	1615	3476	3505	1599
Grp Volume(v), veh/h	766	291	159	209	126.4		0	1949	186	414	1302	0
Grp Sat Flow(s),veh/h/ln	1721	1805	1583	1792	F		0	1571	1615	1738	1752	1599
Q Serve(g_s), s	31.6	11.6	14.8	17.5			0.0	45.9	9.6	9.3	0.0	0.0
Cycle Q Clear(g_c), s	31.6	11.6	14.8	17.5			0.0	45.9	9.6	9.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	912	422	185	210			0	2010	516	1049	2324	1060
V/C Ratio(X)	0.84	0.69	0.86	0.99			0.00	0.97	0.36	0.39	0.56	0.00
Avail Cap(c_a), veh/h	912	1011	443	210			0	2011	517	1049	2324	1060
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00			0.00	0.84	0.84	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.1	63.6	65.0	66.1			0.0	50.3	20.4	22.6	0.0	0.0
Incr Delay (d2), s/veh	6.9	0.8	4.4	60.3			0.0	12.5	1.6	0.1	1.0	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
%ile BackOfQ(50%),veh/ln	15.9	5.9	6.7	12.2			0.0	21.6	4.5	4.4	0.3	0.0
LnGrp Delay(d),s/veh	59.0	64.4	69.4	126.4			0.0	62.8	22.1	22.7	1.0	0.0
LnGrp LOS	E	E	E	F				E	C	C	A	
Approach Vol, veh/h		1216						2135			1716	
Approach Delay, s/veh		61.7						59.3			6.2	
Approach LOS		E						E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	51.5	54.2	22.2	22.2		105.6	44.4	
Change Period (Y+Rc), s	6.2	* 6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	22.4	* 48	17.6	42.0		75.0	37.9	
Max Q Clear Time (g_c+I1), s	11.3	47.9	19.5	16.8		2.0	33.6	
Green Ext Time (p_c), s	3.7	0.1	0.0	0.8		4.7	1.1	

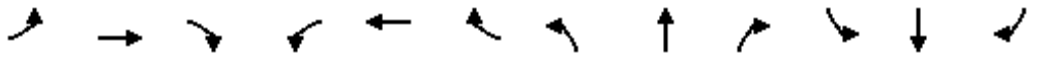
Intersection Summary	
HCM 2010 Ctrl Delay	45.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	0	51	75	0	156	48	1778	194	0	1390	90
Future Volume (veh/h)	97	0	51	75	0	156	48	1778	194	0	1390	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1900	1881	1863	1863	1900	0	1863	1863
Adj Flow Rate, veh/h	105	0	55	82	0	170	52	1933	211	0	1511	98
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	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
Percent Heavy Veh, %	2	2	2	2	2	1	2	2	2	0	2	2
Cap, veh/h	143	0	128	232	0	205	68	3877	423	0	2028	907
Arrive On Green	0.08	0.00	0.08	0.13	0.00	0.13	0.04	0.66	0.66	0.00	0.57	0.57
Sat Flow, veh/h	1774	0	1583	1810	0	1599	1774	5910	645	0	3632	1583
Grp Volume(v), veh/h	105	0	55	82	0	170	52	1572	572	0	1511	98
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1810	0	1599	1774	1602	1748	0	1770	1583
Q Serve(g_s), s	5.8	0.0	3.3	4.1	0.0	10.4	2.9	16.7	16.7	0.0	31.8	2.8
Cycle Q Clear(g_c), s	5.8	0.0	3.3	4.1	0.0	10.4	2.9	16.7	16.7	0.0	31.8	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	0.00		1.00
Lane Grp Cap(c), veh/h	143	0	128	232	0	205	68	3153	1147	0	2028	907
V/C Ratio(X)	0.73	0.00	0.43	0.35	0.00	0.83	0.77	0.50	0.50	0.00	0.75	0.11
Avail Cap(c_a), veh/h	319	0	285	326	0	288	89	3153	1147	0	2028	907
HCM Platoon Ratio	1.00	1.00	1.00	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	0.68	0.68	0.68	0.00	0.75	0.75
Uniform Delay (d), s/veh	44.9	0.0	43.8	39.8	0.0	42.5	47.6	8.8	8.8	0.0	15.9	9.7
Incr Delay (d2), s/veh	7.1	0.0	2.3	0.9	0.0	13.0	18.0	0.4	1.1	0.0	1.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	1.5	2.1	0.0	5.3	1.8	7.4	8.3	0.0	15.9	1.3
LnGrp Delay(d),s/veh	52.0	0.0	46.1	40.7	0.0	55.5	65.6	9.2	9.9	0.0	17.8	9.9
LnGrp LOS	D		D	D		E	E	A	A		B	A
Approach Vol, veh/h		160			252			2196			1609	
Approach Delay, s/veh		50.0			50.7			10.7			17.4	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		70.1		12.6	8.3	61.8		17.3
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		50.5		18.0	5.0	41.0		18.0
Max Q Clear Time (g_c+I1), s		18.7		7.8	4.9	33.8		12.4
Green Ext Time (p_c), s		29.9		0.4	0.0	7.1		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	17.1
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	1	107	0	70	2	1945	85	80	1437	1
Future Volume (veh/h)	5	0	1	107	0	70	2	1945	85	80	1437	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1776	1900	1900	1900	1863	1863	1696	1881	1900
Adj Flow Rate, veh/h	5	0	1	116	0	76	2	2114	92	87	1562	1
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	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
Percent Heavy Veh, %	0	0	0	7	0	0	0	2	2	12	1	0
Cap, veh/h	12	0	8	206	116	98	5	2998	933	108	2336	1055
Arrive On Green	0.01	0.00	0.00	0.06	0.00	0.06	0.00	0.59	0.59	0.07	0.65	0.65
Sat Flow, veh/h	1810	0	1615	3281	1900	1615	1810	5085	1582	1616	3574	1614
Grp Volume(v), veh/h	5	0	1	116	0	76	2	2114	92	87	1562	1
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1640	1900	1615	1810	1695	1582	1616	1787	1614
Q Serve(g_s), s	0.2	0.0	0.0	2.5	0.0	3.3	0.1	20.9	1.8	3.8	19.3	0.0
Cycle Q Clear(g_c), s	0.2	0.0	0.0	2.5	0.0	3.3	0.1	20.9	1.8	3.8	19.3	0.0
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	12	0	8	206	116	98	5	2998	933	108	2336	1055
V/C Ratio(X)	0.42	0.00	0.13	0.56	0.00	0.77	0.41	0.71	0.10	0.81	0.67	0.00
Avail Cap(c_a), veh/h	126	0	712	384	927	788	126	3113	968	142	2336	1055
HCM Platoon Ratio	1.00	1.00	1.00	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	35.5	0.0	35.5	32.6	0.0	33.2	35.7	10.3	6.4	33.0	7.6	4.3
Incr Delay (d2), s/veh	21.6	0.0	9.2	2.4	0.0	14.3	46.0	0.7	0.1	21.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.2	0.0	1.9	0.1	9.8	0.8	2.3	9.6	0.0
LnGrp Delay(d),s/veh	57.1	0.0	44.7	35.1	0.0	47.4	81.7	11.1	6.5	54.9	8.4	4.3
LnGrp LOS	E		D	D		D	F	B	A	D	A	A
Approach Vol, veh/h		6			192			2208			1650	
Approach Delay, s/veh		55.0			40.0			11.0			10.9	
Approach LOS		E			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	48.1	9.0	5.3	4.7	52.7	5.0	9.4
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	6.3	43.9	8.4	31.6	5.0	45.2	5.0	35.0
Max Q Clear Time (g_c+I1), s	5.8	22.9	4.5	2.0	2.1	21.3	2.2	5.3
Green Ext Time (p_c), s	0.0	19.3	0.1	0.3	0.0	23.4	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	119	74	26	1824	1432	67
Future Volume (veh/h)	119	74	26	1824	1432	67
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1863	1864	1900
Adj Flow Rate, veh/h	125	78	27	1920	1507	71
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2
Cap, veh/h	310	143	56	2564	3043	143
Arrive On Green	0.09	0.09	0.03	0.72	0.61	0.61
Sat Flow, veh/h	3510	1615	1810	3632	5149	235
Grp Volume(v), veh/h	125	78	27	1920	1027	551
Grp Sat Flow(s),veh/h/ln	1755	1615	1810	1770	1697	1823
Q Serve(g_s), s	1.8	2.5	0.8	17.8	9.2	9.2
Cycle Q Clear(g_c), s	1.8	2.5	0.8	17.8	9.2	9.2
Prop In Lane	1.00	1.00	1.00			0.13
Lane Grp Cap(c), veh/h	310	143	56	2564	2073	1114
V/C Ratio(X)	0.40	0.55	0.48	0.75	0.50	0.50
Avail Cap(c_a), veh/h	1193	549	173	2685	2073	1114
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.5	23.8	26.0	4.5	5.9	5.9
Incr Delay (d2), s/veh	0.8	3.2	6.4	1.2	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.2	0.5	8.7	4.2	4.6
LnGrp Delay(d),s/veh	24.3	27.0	32.4	5.7	6.1	6.3
LnGrp LOS	C	C	C	A	A	A
Approach Vol, veh/h	203			1947	1578	
Approach Delay, s/veh	25.3			6.1	6.2	
Approach LOS	C			A	A	

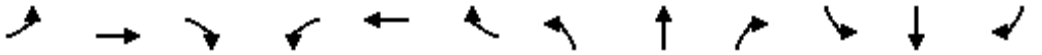
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		9.3	6.2	39.0				45.1
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		18.5	5.2	31.6				41.3
Max Q Clear Time (g_c+I1), s		4.5	2.8	11.2				19.8
Green Ext Time (p_c), s		0.5	0.0	19.9				19.6

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	386	412	411	70	340	224	406	1336	74	214	1014	287
Future Volume (veh/h)	386	412	411	70	340	224	406	1336	74	214	1014	287
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1845	1900	1900	1810	1900	1863	1863	1900	1863	1863	1845
Adj Flow Rate, veh/h	415	443	442	75	366	241	437	1437	80	230	1090	309
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	3	0	0	5	5	2	2	2	2	2	3
Cap, veh/h	372	1036	473	95	278	180	515	1338	74	210	1839	556
Arrive On Green	0.21	0.30	0.30	0.05	0.14	0.14	0.15	0.39	0.39	0.12	0.36	0.36
Sat Flow, veh/h	1792	3505	1599	1810	1975	1275	3442	3408	189	1774	5085	1537
Grp Volume(v), veh/h	415	443	442	75	318	289	437	744	773	230	1090	309
Grp Sat Flow(s),veh/h/ln	1792	1752	1599	1810	1719	1531	1721	1770	1828	1774	1695	1537
Q Serve(g_s), s	28.0	13.8	36.3	5.5	19.0	19.0	16.7	53.0	53.0	16.0	23.5	21.7
Cycle Q Clear(g_c), s	28.0	13.8	36.3	5.5	19.0	19.0	16.7	53.0	53.0	16.0	23.5	21.7
Prop In Lane	1.00		1.00	1.00		0.83	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	372	1036	473	95	242	215	515	695	718	210	1839	556
V/C Ratio(X)	1.12	0.43	0.94	0.79	1.31	1.34	0.85	1.07	1.08	1.09	0.59	0.56
Avail Cap(c_a), veh/h	372	1036	473	121	242	215	612	695	718	210	1839	556
HCM Platoon Ratio	1.00	1.00	1.00	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	53.5	38.3	46.3	63.2	58.0	58.0	55.9	41.0	41.0	59.5	35.0	34.4
Incr Delay (d2), s/veh	82.2	1.0	27.5	23.1	167.3	181.9	11.6	54.7	56.3	89.4	0.6	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	22.3	6.8	19.6	3.4	20.2	18.9	8.8	36.4	37.9	13.0	11.1	9.4
LnGrp Delay(d),s/veh	135.7	39.4	73.8	86.3	225.3	239.9	67.6	95.7	97.3	148.9	35.6	36.0
LnGrp LOS	F	D	E	F	F	F	E	F	F	F	D	D
Approach Vol, veh/h		1300			682			1954			1629	
Approach Delay, s/veh		81.8			216.2			90.1			51.7	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	58.0	11.1	45.9	24.2	53.8	32.0	25.0
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	16.0	53.0	9.0	38.0	24.0	45.0	28.0	19.0
Max Q Clear Time (g_c+I1), s	18.0	55.0	7.5	38.3	18.7	25.5	30.0	21.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	1.5	19.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	92.4
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	34	181	102	34	46	152	652	119	41	540	36
Future Volume (veh/h)	64	34	181	102	34	46	152	652	119	41	540	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1737	1845	1900	1743	1792	1681	1847	1900	1900	1827	1624
Adj Flow Rate, veh/h	70	37	199	112	37	51	167	716	131	45	593	40
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	12	12	3	9	9	6	13	3	3	0	4	17
Cap, veh/h	68	21	463	72	13	450	198	769	141	69	768	567
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.12	0.51	0.51	0.04	0.42	0.42
Sat Flow, veh/h	0	71	1565	0	44	1521	1601	1520	278	1810	1827	1350
Grp Volume(v), veh/h	107	0	199	149	0	51	167	0	847	45	593	40
Grp Sat Flow(s),veh/h/ln	71	0	1565	44	0	1521	1601	0	1798	1810	1827	1350
Q Serve(g_s), s	0.0	0.0	9.0	0.0	0.0	2.1	8.9	0.0	38.5	2.1	24.4	1.5
Cycle Q Clear(g_c), s	25.9	0.0	9.0	25.9	0.0	2.1	8.9	0.0	38.5	2.1	24.4	1.5
Prop In Lane	0.65		1.00	0.75		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	89	0	463	85	0	450	198	0	910	69	768	567
V/C Ratio(X)	1.20	0.00	0.43	1.75	0.00	0.11	0.84	0.00	0.93	0.65	0.77	0.07
Avail Cap(c_a), veh/h	89	0	463	85	0	450	240	0	916	114	772	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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	0.0	24.9	39.8	0.0	22.4	37.5	0.0	20.2	41.5	21.8	15.2
Incr Delay (d2), s/veh	159.5	0.0	0.7	380.6	0.0	0.1	20.5	0.0	16.4	11.6	6.1	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	6.1	0.0	3.9	11.0	0.0	0.9	5.1	0.0	23.0	1.3	13.5	0.6
LnGrp Delay(d),s/veh	197.3	0.0	25.6	420.4	0.0	22.6	58.0	0.0	36.5	53.2	27.9	15.3
LnGrp LOS	F		C	F		C	E		D	D	C	B
Approach Vol, veh/h		306			200			1014			678	
Approach Delay, s/veh		85.6			319.0			40.1			28.8	
Approach LOS		F			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.4	49.7		30.4	14.9	42.2		30.4
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	5.5	44.6		25.9	13.1	37.0		25.9
Max Q Clear Time (g_c+I1), s	4.1	40.5		27.9	10.9	26.4		27.9
Green Ext Time (p_c), s	0.0	3.8		0.0	0.1	9.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	68.3
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	141	22	812	160	380	43	821	742	205	740	37
Future Volume (veh/h)	42	141	22	812	160	380	43	821	742	205	740	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1836	1900	1881	1869	1900	1900	1845	1881	1900	1860	1900
Adj Flow Rate, veh/h	45	150	23	985	0	404	46	873	789	218	787	39
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	1	3	0	0	3	1	0	2	2
Cap, veh/h	146	255	38	1063	0	477	60	1279	582	206	1526	76
Arrive On Green	0.08	0.08	0.08	0.30	0.00	0.30	0.03	0.36	0.36	0.11	0.45	0.45
Sat Flow, veh/h	1740	3034	456	3583	0	1607	1810	3505	1596	1810	3423	170
Grp Volume(v), veh/h	45	85	88	985	0	404	46	873	789	218	406	420
Grp Sat Flow(s),veh/h/ln	1740	1744	1746	1792	0	1607	1810	1752	1596	1810	1767	1826
Q Serve(g_s), s	3.2	6.2	6.4	35.1	0.0	31.1	3.3	27.7	48.0	15.0	21.8	21.8
Cycle Q Clear(g_c), s	3.2	6.2	6.4	35.1	0.0	31.1	3.3	27.7	48.0	15.0	21.8	21.8
Prop In Lane	1.00		0.26	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	146	146	146	1063	0	477	60	1279	582	206	788	814
V/C Ratio(X)	0.31	0.58	0.60	0.93	0.00	0.85	0.77	0.68	1.35	1.06	0.52	0.52
Avail Cap(c_a), veh/h	370	371	372	1103	0	495	124	1279	582	206	788	814
HCM Platoon Ratio	1.00	1.00	1.00	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	56.7	58.0	58.1	44.9	0.0	43.5	63.1	35.3	41.8	58.3	26.2	26.2
Incr Delay (d2), s/veh	1.2	3.6	3.9	12.8	0.0	12.7	18.5	1.7	170.6	78.4	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	1.6	3.1	3.2	19.3	0.0	15.4	2.0	13.6	48.6	11.9	10.8	11.1
LnGrp Delay(d),s/veh	57.9	61.6	62.0	57.7	0.0	56.1	81.6	37.0	212.4	136.7	27.0	27.0
LnGrp LOS	E	E	E	E		E	F	D	F	F	C	C
Approach Vol, veh/h		218			1389			1708			1044	
Approach Delay, s/veh		61.0			57.3			119.2			49.9	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.0	53.0		16.0	8.3	63.7		43.5
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	15.0	48.0		28.0	9.0	54.0		40.5
Max Q Clear Time (g_c+I1), s	17.0	50.0		8.4	5.3	23.8		37.1
Green Ext Time (p_c), s	0.0	0.0		1.0	0.0	24.9		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	80.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	945	14	36	1168	523	49	19	11	531	19	289
Future Volume (veh/h)	268	945	14	36	1168	523	49	19	11	531	19	289
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1881	1900	1845	1881	1776	1900	1900	1900	1863	1865	1900
Adj Flow Rate, veh/h	279	984	15	38	1217	0	51	20	11	567	0	301
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	1	1	3	1	7	0	0	0	2	0	0
Cap, veh/h	291	1714	26	48	1221	516	124	78	43	847	0	384
Arrive On Green	0.16	0.48	0.48	0.03	0.34	0.00	0.07	0.07	0.07	0.24	0.00	0.24
Sat Flow, veh/h	1810	3604	55	1757	3574	1509	1810	1146	630	3548	0	1607
Grp Volume(v), veh/h	279	488	511	38	1217	0	51	0	31	567	0	301
Grp Sat Flow(s),veh/h/ln	1810	1787	1872	1757	1787	1509	1810	0	1776	1774	0	1607
Q Serve(g_s), s	15.7	20.2	20.2	2.2	34.8	0.0	2.8	0.0	1.7	14.8	0.0	18.0
Cycle Q Clear(g_c), s	15.7	20.2	20.2	2.2	34.8	0.0	2.8	0.0	1.7	14.8	0.0	18.0
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	291	850	890	48	1221	516	124	0	121	847	0	384
V/C Ratio(X)	0.96	0.57	0.57	0.80	1.00	0.00	0.41	0.00	0.26	0.67	0.00	0.78
Avail Cap(c_a), veh/h	291	850	890	115	1221	516	124	0	121	1108	0	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.6	19.4	19.4	49.6	33.7	0.0	45.8	0.0	45.3	35.3	0.0	36.5
Incr Delay (d2), s/veh	41.2	2.3	2.2	25.0	25.0	0.0	9.9	0.0	5.0	1.4	0.0	7.1
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	11.2	10.4	10.9	1.4	21.3	0.0	1.7	0.0	1.0	7.4	0.0	8.7
LnGrp Delay(d),s/veh	83.8	21.7	21.6	74.5	58.6	0.0	55.6	0.0	50.3	36.7	0.0	43.6
LnGrp LOS	F	C	C	E	E		E		D	D		D
Approach Vol, veh/h		1278			1255			82			868	
Approach Delay, s/veh		35.2			59.1			53.6			39.1	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.0	7.3	53.7		29.5	21.0	40.0
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		7.0	6.7	44.8		32.0	16.5	35.0
Max Q Clear Time (g_c+I1), s		4.8	4.2	22.2		20.0	17.7	36.8
Green Ext Time (p_c), s		0.0	0.0	21.7		4.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	978	529	577	1464	0	0	0	0	46	3	324
Future Volume (veh/h)	0	978	529	577	1464	0	0	0	0	46	3	324
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1881	1863	1863	1827	0				1900	1863	1900
Adj Flow Rate, veh/h	0	1029	557	607	1541	0				48	3	341
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	1	2	2	4	0				0	0	0
Cap, veh/h	0	1022	451	596	2353	0				416	3	362
Arrive On Green	0.00	0.29	0.29	0.34	0.68	0.00				0.23	0.23	0.23
Sat Flow, veh/h	0	3668	1578	1774	3563	0				1810	14	1572
Grp Volume(v), veh/h	0	1029	557	607	1541	0				48	0	344
Grp Sat Flow(s),veh/h/ln	0	1787	1578	1774	1736	0				1810	0	1586
Q Serve(g_s), s	0.0	28.6	28.6	33.6	25.7	0.0				2.1	0.0	21.3
Cycle Q Clear(g_c), s	0.0	28.6	28.6	33.6	25.7	0.0				2.1	0.0	21.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1022	451	596	2353	0				416	0	365
V/C Ratio(X)	0.00	1.01	1.23	1.02	0.65	0.00				0.12	0.00	0.94
Avail Cap(c_a), veh/h	0	1022	451	596	2353	0				416	0	365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.76	0.76	0.13	0.13	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	35.7	35.7	33.2	9.3	0.0				30.5	0.0	37.9
Incr Delay (d2), s/veh	0.0	26.1	119.3	18.3	0.2	0.0				0.0	0.0	32.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.8	27.4	19.4	12.3	0.0				1.1	0.0	12.6
LnGrp Delay(d),s/veh	0.0	61.8	155.0	51.5	9.5	0.0				30.5	0.0	70.2
LnGrp LOS		F	F	F	A					C		E
Approach Vol, veh/h		1586			2148						392	
Approach Delay, s/veh		94.6			21.4						65.4	
Approach LOS		F			C						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	39.2	33.7		27.1		72.9		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	33.6	28.6		23.0		67.8		
Max Q Clear Time (g_c+I1), s	35.6	30.6		23.3		27.7		
Green Ext Time (p_c), s	0.0	0.0		0.0		24.5		

Intersection Summary	
HCM 2010 Ctrl Delay	53.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	219	805	0	0	1437	101	604	4	580	0	0	0
Future Volume (veh/h)	219	805	0	0	1437	101	604	4	580	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1881	0	0	1881	1900	1810	1837	1863			
Adj Flow Rate, veh/h	238	875	0	0	1562	110	855	0	421			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	1	0	0	1	1	5	0	2			
Cap, veh/h	250	2329	0	0	1632	114	951	0	437			
Arrive On Green	0.14	0.65	0.00	0.00	0.48	0.48	0.28	0.00	0.28			
Sat Flow, veh/h	1774	3668	0	0	3483	237	3447	0	1583			
Grp Volume(v), veh/h	238	875	0	0	819	853	855	0	421			
Grp Sat Flow(s),veh/h/ln	1774	1787	0	0	1787	1839	1723	0	1583			
Q Serve(g_s), s	16.0	13.6	0.0	0.0	52.6	53.8	28.7	0.0	31.5			
Cycle Q Clear(g_c), s	16.0	13.6	0.0	0.0	52.6	53.8	28.7	0.0	31.5			
Prop In Lane	1.00		0.00	0.00		0.13	1.00		1.00			
Lane Grp Cap(c), veh/h	250	2329	0	0	861	886	951	0	437			
V/C Ratio(X)	0.95	0.38	0.00	0.00	0.95	0.96	0.90	0.00	0.96			
Avail Cap(c_a), veh/h	250	2329	0	0	861	886	951	0	437			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.17	0.17	0.00	0.00	0.72	0.72	1.00	0.00	1.00			
Uniform Delay (d), s/veh	51.2	9.6	0.0	0.0	29.8	30.1	41.8	0.0	42.9			
Incr Delay (d2), s/veh	13.5	0.1	0.0	0.0	16.7	18.1	11.6	0.0	33.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.7	6.7	0.0	0.0	29.7	31.7	15.2	0.0	17.9			
LnGrp Delay(d),s/veh	64.7	9.7	0.0	0.0	46.5	48.2	53.4	0.0	76.8			
LnGrp LOS	E	A			D	D	D		E			
Approach Vol, veh/h		1113			1672			1276				
Approach Delay, s/veh		21.5			47.4			61.1				
Approach LOS		C			D			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		82.8			20.4	62.4		37.2
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		78.2			16.9	57.8		33.1
Max Q Clear Time (g_c+I1), s		15.6			18.0	55.8		33.5
Green Ext Time (p_c), s		23.9			0.0	1.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1257	116	22	1452	0	86	0	21	0	0	0
Future Volume (veh/h)	52	1257	116	22	1452	0	86	0	21	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1861	1900	1900	1863	0	1827	0	1810			
Adj Flow Rate, veh/h	57	1381	127	24	1596	0	95	0	23			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	2	2	0	2	0	4	0	5			
Cap, veh/h	111	2212	202	40	2256	0	136	0	120			
Arrive On Green	0.06	0.68	0.68	0.02	0.64	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	1810	3269	299	1810	3632	0	1740	0	1538			
Grp Volume(v), veh/h	57	744	764	24	1596	0	95	0	23			
Grp Sat Flow(s),veh/h/ln	1810	1768	1800	1810	1770	0	1740	0	1538			
Q Serve(g_s), s	1.8	14.2	14.4	0.8	18.0	0.0	3.2	0.0	0.8			
Cycle Q Clear(g_c), s	1.8	14.2	14.4	0.8	18.0	0.0	3.2	0.0	0.8			
Prop In Lane	1.00		0.17	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	111	1196	1218	40	2256	0	136	0	120			
V/C Ratio(X)	0.52	0.62	0.63	0.60	0.71	0.00	0.70	0.00	0.19			
Avail Cap(c_a), veh/h	180	1196	1218	165	2314	0	605	0	535			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	27.5	5.5	5.5	29.3	7.2	0.0	27.2	0.0	26.1			
Incr Delay (d2), s/veh	3.7	1.7	1.7	13.9	1.4	0.0	6.4	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			
%ile BackOfQ(50%),veh/ln	1.0	7.4	7.6	0.5	9.1	0.0	1.8	0.0	0.4			
LnGrp Delay(d),s/veh	31.2	7.1	7.2	43.2	8.7	0.0	33.6	0.0	26.8			
LnGrp LOS	C	A	A	D	A		C		C			
Approach Vol, veh/h		1565			1620			118				
Approach Delay, s/veh		8.1			9.2			32.3				
Approach LOS		A			A			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	5.3	45.9			7.7	43.5		9.2
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.5	40.0			6.0	39.5		21.0
Max Q Clear Time (g_c+I1), s	2.8	16.4			3.8	20.0		5.2
Green Ext Time (p_c), s	0.0	23.4			0.0	18.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	9.5
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	1826	1665	2
Future Vol, veh/h	0	20	5	1826	1665	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	1882	1716	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	859	1718	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.35	2.2	-	-	-
Pot Cap-1 Maneuver	0	294	374	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	294	374	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	374	-	294	-	-
HCM Lane V/C Ratio	0.014	-	0.07	-	-
HCM Control Delay (s)	14.8	-	18.2	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	98	102	139	423	321	104
Future Vol, veh/h	98	102	139	423	321	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	370	-	220	-	-	-
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	107	111	151	460	349	113

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	937	231	462	0	-	0
Stage 1	405	-	-	-	-	-
Stage 2	532	-	-	-	-	-
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	263	771	1095	-	-	-
Stage 1	642	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	227	771	1095	-	-	-
Mov Cap-2 Maneuver	227	-	-	-	-	-
Stage 1	642	-	-	-	-	-
Stage 2	477	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.1	2.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1095	-	227	771	-	-
HCM Lane V/C Ratio	0.138	-	0.469	0.144	-	-
HCM Control Delay (s)	8.8	-	34.1	10.5	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.5	-	2.3	0.5	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	936	139	22	935	39	122	3	27	68	10	349
Future Volume (veh/h)	179	936	139	22	935	39	122	3	27	68	10	349
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	195	1017	151	24	1016	42	133	3	29	0	0	466
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	1372	203	84	1286	53	185	16	152	0	269	458
Arrive On Green	0.13	0.44	0.44	0.05	0.37	0.37	0.10	0.10	0.10	0.00	0.00	0.14
Sat Flow, veh/h	1774	3093	459	1774	3464	143	1774	151	1455	0	1863	3167
Grp Volume(v), veh/h	195	581	587	24	519	539	133	0	32	0	0	466
Grp Sat Flow(s),veh/h/ln	1774	1770	1782	1774	1770	1837	1774	0	1606	0	1863	1583
Q Serve(g_s), s	7.4	18.8	18.9	0.9	18.0	18.0	5.0	0.0	1.3	0.0	0.0	10.0
Cycle Q Clear(g_c), s	7.4	18.8	18.9	0.9	18.0	18.0	5.0	0.0	1.3	0.0	0.0	10.0
Prop In Lane	1.00		0.26	1.00		0.08	1.00		0.91	0.00		1.00
Lane Grp Cap(c), veh/h	238	785	790	84	657	682	185	0	168	0	269	458
V/C Ratio(X)	0.82	0.74	0.74	0.29	0.79	0.79	0.72	0.00	0.19	0.00	0.00	1.02
Avail Cap(c_a), veh/h	282	845	851	128	691	718	770	0	697	0	269	458
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	1.00
Uniform Delay (d), s/veh	29.1	15.9	16.0	31.8	19.3	19.3	30.0	0.0	28.3	0.0	0.0	29.6
Incr Delay (d2), s/veh	15.1	5.4	5.4	1.9	8.5	8.2	5.2	0.0	0.5	0.0	0.0	46.5
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	4.6	10.2	10.3	0.5	10.3	10.7	2.7	0.0	0.6	0.0	0.0	7.3
LnGrp Delay(d),s/veh	44.2	21.4	21.4	33.7	27.8	27.5	35.1	0.0	28.8	0.0	0.0	76.1
LnGrp LOS	D	C	C	C	C	C	D		C			F
Approach Vol, veh/h		1363			1082			165			466	
Approach Delay, s/veh		24.6			27.8			33.9			76.1	
Approach LOS		C			C			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	35.7		11.2	13.3	30.7		14.0
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 33		30.0	11.0	27.0		10.0
Max Q Clear Time (g_c+I1), s	2.9	20.9		7.0	9.4	20.0		12.0
Green Ext Time (p_c), s	1.8	9.8		0.5	0.1	5.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	402	161	1676	387	142	1543
Future Volume (veh/h)	402	161	1676	387	142	1543
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	437	175	1822	421	154	1677
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	626	288	2408	1038	194	2341
Arrive On Green	0.18	0.18	0.47	0.47	0.11	0.66
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	437	175	1822	421	154	1677
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	6.8	5.8	16.9	7.2	4.9	17.5
Cycle Q Clear(g_c), s	6.8	5.8	16.9	7.2	4.9	17.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	626	288	2408	1038	194	2341
V/C Ratio(X)	0.70	0.61	0.76	0.41	0.79	0.72
Avail Cap(c_a), veh/h	1078	496	2408	1038	232	2341
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	22.0	21.6	12.4	4.6	24.9	6.3
Incr Delay (d2), s/veh	1.4	2.1	2.3	1.2	14.5	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	2.7	8.3	5.0	3.1	9.0
LnGrp Delay(d),s/veh	23.4	23.7	14.7	5.8	39.4	8.2
LnGrp LOS	C	C	B	A	D	A
Approach Vol, veh/h	612		2243			1831
Approach Delay, s/veh	23.5		13.0			10.8
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.8	31.7				42.5		15.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	7.5	26.0				38.0		18.0
Max Q Clear Time (g_c+I1), s	6.9	18.9				19.5		8.8
Green Ext Time (p_c), s	0.0	7.0				17.9		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	296	7	0	323	0	3
Future Vol, veh/h	296	7	0	323	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	-	-	-	-	-	-
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	322	8	0	351	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	326
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	715
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	715
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	715	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-
HCM Control Delay (s)	10.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Intersection Delay, s/veh	83.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	291	382	132	251	0	590	0	171	0	0	0
Future Vol, veh/h	1	291	382	132	251	0	590	0	171	0	0	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	7	3	7	6	0	5	0	4	0	0	0
Mvmt Flow	1	303	398	138	261	0	615	0	178	0	0	0
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	27.7	20.4	163.8	0
HCM LOS	D	C	F	-

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	590	171	292	382	132	251	0
LT Vol	590	0	1	0	132	0	0
Through Vol	0	0	291	0	0	251	0
RT Vol	0	171	0	382	0	0	0
Lane Flow Rate	615	178	304	398	138	261	0
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	1.38	0.335	0.628	0.758	0.321	0.573	0
Departure Headway (Hd)	8.081	6.768	8.278	7.673	9.284	8.745	9.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	531	438	474	391	416	0
Service Time	5.824	4.511	5.978	5.373	6.984	6.445	7.97
HCM Lane V/C Ratio	1.352	0.335	0.694	0.84	0.353	0.627	0
HCM Control Delay	207.5	12.9	23.9	30.6	16.3	22.5	13
HCM Lane LOS	F	B	C	D	C	C	N
HCM 95th-tile Q	29	1.5	4.2	6.5	1.4	3.5	0

Intersection	
Int Delay, s/veh	5.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	81	1123	18	106	669
Future Vol, veh/h	16	81	1123	18	106	669
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	2	0	2	5
Mvmt Flow	17	87	1208	19	114	719

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2164	1217	0	0	1227	0
Stage 1	1217	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	53	223	-	-	568	-
Stage 1	283	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	42	223	-	-	568	-
Mov Cap-2 Maneuver	42	-	-	-	-	-
Stage 1	283	-	-	-	-	-
Stage 2	304	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	97.7	0	1.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	130	568	-
HCM Lane V/C Ratio	-	-	0.802	0.201	-
HCM Control Delay (s)	-	-	97.7	12.9	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	4.9	0.7	-

Intersection	
Int Delay, s/veh	12

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	2	3	54	1	5	9	1132	88	2	685	1
Future Vol, veh/h	2	2	3	54	1	5	9	1132	88	2	685	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	-	-	30	-	-	30	105	-	210	105	-	-
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, %	0	0	0	0	0	0	0	2	1	0	5	0
Mvmt Flow	2	2	3	59	1	5	10	1230	96	2	745	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2000	1999	745	2001	2000	1230	746	0	0	1230	0	0
Stage 1	749	749	-	1250	1250	-	-	-	-	-	-	-
Stage 2	1251	1250	-	751	750	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	45	61	417	~ 45	61	219	871	-	-	574	-	-
Stage 1	407	422	-	214	247	-	-	-	-	-	-	-
Stage 2	213	247	-	406	422	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	43	60	417	~ 43	60	219	871	-	-	574	-	-
Mov Cap-2 Maneuver	43	60	-	~ 43	60	-	-	-	-	-	-	-
Stage 1	402	421	-	212	244	-	-	-	-	-	-	-
Stage 2	204	244	-	399	421	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	53.7	$ 388.4	0.1	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	871	-	-	50	417	43	219	574	-	-
HCM Lane V/C Ratio	0.011	-	-	0.087	0.008	1.39	0.025	0.004	-	-
HCM Control Delay (s)	9.2	-	-	83.7	13.7	$ 421.7	21.9	11.3	-	-
HCM Lane LOS	A	-	-	F	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	5.9	0.1	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

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	87	28	99	59	21	11	109	248	88	7	170	79
Future Vol, veh/h	87	28	99	59	21	11	109	248	88	7	170	79
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	5	0	5	0	5	0	4	2	1	0	5	4
Mvmt Flow	98	31	111	66	24	12	122	279	99	8	191	89
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	12.6	13.3	20.3	13.3
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	76%	0%	65%	100%	0%	0%
Vol Thru, %	0%	74%	24%	0%	23%	0%	100%	0%
Vol Right, %	0%	26%	0%	100%	12%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	109	336	115	99	91	7	170	79
LT Vol	109	0	87	0	59	7	0	0
Through Vol	0	248	28	0	21	0	170	0
RT Vol	0	88	0	99	11	0	0	79
Lane Flow Rate	122	378	129	111	102	8	191	89
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.249	0.691	0.285	0.209	0.23	0.017	0.389	0.163
Departure Headway (Hd)	7.324	6.593	7.947	6.765	8.112	7.75	7.326	6.594
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	491	547	452	531	443	462	491	544
Service Time	5.061	4.329	5.691	4.509	5.862	5.491	5.067	4.335
HCM Lane V/C Ratio	0.248	0.691	0.285	0.209	0.23	0.017	0.389	0.164
HCM Control Delay	12.5	22.8	13.8	11.3	13.3	10.6	14.7	10.6
HCM Lane LOS	B	C	B	B	B	B	B	B
HCM 95th-tile Q	1	5.3	1.2	0.8	0.9	0.1	1.8	0.6

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	28	464	335	1
Future Vol, veh/h	0	11	28	464	335	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	4	2	3	0
Mvmt Flow	0	13	33	540	390	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	995	390	391	0	-	0
Stage 1	390	-	-	-	-	-
Stage 2	605	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	274	663	1157	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	266	663	1157	-	-	-
Mov Cap-2 Maneuver	266	-	-	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	533	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1157	-	663	-	-
HCM Lane V/C Ratio	0.028	-	0.019	-	-
HCM Control Delay (s)	8.2	-	10.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	8.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	76	193	299	59	133	213
Future Vol, veh/h	76	193	299	59	133	213
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	10	2	1	7	5	1
Mvmt Flow	86	219	340	67	151	242

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	917	373	0	0	407	0
Stage 1	373	-	-	-	-	-
Stage 2	544	-	-	-	-	-
Critical Hdwy	6.5	6.22	-	-	4.15	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.318	-	-	2.245	-
Pot Cap-1 Maneuver	292	673	-	-	1136	-
Stage 1	679	-	-	-	-	-
Stage 2	566	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	253	673	-	-	1136	-
Mov Cap-2 Maneuver	253	-	-	-	-	-
Stage 1	679	-	-	-	-	-
Stage 2	491	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	27.3	0	3.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	458	1136	-
HCM Lane V/C Ratio	-	-	0.667	0.133	-
HCM Control Delay (s)	-	-	27.3	8.7	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	4.8	0.5	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	9	367	7	5	285
Future Vol, veh/h	40	9	367	7	5	285
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	43	10	390	7	5	303

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	708	394	0	0	398	0
Stage 1	394	-	-	-	-	-
Stage 2	314	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	404	659	-	-	1172	-
Stage 1	686	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	402	659	-	-	1172	-
Mov Cap-2 Maneuver	402	-	-	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	402	659	1172	-
HCM Lane V/C Ratio	-	-	0.106	0.015	0.005	-
HCM Control Delay (s)	-	-	15	10.5	8.1	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	38	0	8	0	366	44	8	317	0
Future Vol, veh/h	0	0	0	38	0	8	0	366	44	8	317	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	3	0	0	0	2	0	0	3	0
Mvmt Flow	0	0	0	42	0	9	0	402	48	9	348	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	797	817	348	792	792	426	348	0	0	451	0	0
Stage 1	366	366	-	426	426	-	-	-	-	-	-	-
Stage 2	431	451	-	366	366	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	307	313	700	306	324	633	1222	-	-	1120	-	-
Stage 1	657	626	-	604	589	-	-	-	-	-	-	-
Stage 2	607	574	-	651	626	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	301	310	700	304	321	633	1222	-	-	1120	-	-
Mov Cap-2 Maneuver	301	310	-	304	321	-	-	-	-	-	-	-
Stage 1	657	621	-	604	589	-	-	-	-	-	-	-
Stage 2	599	574	-	646	621	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	17.7	0	0.2
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1222	-	-	-	334	1120	-	-
HCM Lane V/C Ratio	-	-	-	-	0.151	0.008	-	-
HCM Control Delay (s)	0	-	-	0	17.7	8.2	-	-
HCM Lane LOS	A	-	-	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	159	42	368	160	38	317
Future Vol, veh/h	159	42	368	160	38	317
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	181	48	418	182	43	360

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	956	509	0	0	600	0
Stage 1	509	-	-	-	-	-
Stage 2	447	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	289	568	-	-	987	-
Stage 1	608	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	276	568	-	-	987	-
Mov Cap-2 Maneuver	406	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	621	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.9	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	406	568	987	-
HCM Lane V/C Ratio	-	-	0.445	0.084	0.044	-
HCM Control Delay (s)	-	-	20.8	11.9	8.8	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	2.2	0.3	0.1	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	39	33	498	459	3
Future Vol, veh/h	3	39	33	498	459	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	3	4	2	3	0
Mvmt Flow	3	44	37	560	516	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1151	517	519	0	-	0
Stage 1	517	-	-	-	-	-
Stage 2	634	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.236	-	-	-
Pot Cap-1 Maneuver	221	556	1037	-	-	-
Stage 1	603	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	213	556	1037	-	-	-
Mov Cap-2 Maneuver	349	-	-	-	-	-
Stage 1	603	-	-	-	-	-
Stage 2	513	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1037	-	533	-	-
HCM Lane V/C Ratio	0.036	-	0.089	-	-
HCM Control Delay (s)	8.6	-	12.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	149	1	1	15	228	916	5	3	936	12
Future Vol, veh/h	0	0	149	1	1	15	228	916	5	3	936	12
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	7	4	3	0	33	1	0
Mvmt Flow	0	0	157	1	1	16	240	964	5	3	985	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	985	2439	2439	967	985	0	0	969	0	0
Stage 1	-	-	-	1447	1447	-	-	-	-	-	-	-
Stage 2	-	-	-	992	992	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.21	7.1	6.5	6.27	4.14	-	-	4.43	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.309	3.5	4	3.363	2.236	-	-	2.497	-	-
Pot Cap-1 Maneuver	0	0	302	22	32	302	693	-	-	601	-	-
Stage 1	0	0	-	165	198	-	-	-	-	-	-	-
Stage 2	0	0	-	299	326	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	302	8	21	302	693	-	-	601	-	-
Mov Cap-2 Maneuver	-	-	-	8	21	-	-	-	-	-	-	-
Stage 1	-	-	-	108	129	-	-	-	-	-	-	-
Stage 2	-	-	-	143	324	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.1	66.4	2.6	0
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	693	-	-	302	76	601	-	-
HCM Lane V/C Ratio	0.346	-	-	0.519	0.235	0.005	-	-
HCM Control Delay (s)	12.9	-	-	29.1	66.4	11	-	-
HCM Lane LOS	B	-	-	D	F	B	-	-
HCM 95th %tile Q(veh)	1.5	-	-	2.8	0.8	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	299	5	11	320	6	6
Future Vol, veh/h	299	5	11	320	6	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	325	5	12	348	7	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	330	0	700	328
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	372	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1229	-	405	713
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	697	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1229	-	401	713
Mov Cap-2 Maneuver	-	-	-	-	506	-
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	690	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	592	-	-	1229	-
HCM Lane V/C Ratio	0.022	-	-	0.01	-
HCM Control Delay (s)	11.2	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	49	288	205	71	22	280	337	167	22	357	41
Future Volume (veh/h)	55	49	288	205	71	22	280	337	167	22	357	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1667	1827	1881	1810	1900	1863	1863	1845	1900	1855	1900
Adj Flow Rate, veh/h	68	60	356	253	88	27	346	416	206	27	441	51
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	8	14	4	1	5	5	2	2	3	0	2	2
Cap, veh/h	437	434	396	321	237	73	306	647	536	33	594	68
Arrive On Green	0.26	0.26	0.26	0.18	0.18	0.18	0.17	0.35	0.35	0.02	0.19	0.19
Sat Flow, veh/h	1675	1667	1519	1792	1325	406	1774	1863	1543	1810	3167	364
Grp Volume(v), veh/h	68	60	356	253	0	115	346	416	206	27	244	248
Grp Sat Flow(s),veh/h/ln	1675	1667	1519	1792	0	1731	1774	1863	1543	1810	1762	1768
Q Serve(g_s), s	2.8	2.5	20.3	12.1	0.0	5.2	15.5	16.9	9.0	1.3	11.7	11.9
Cycle Q Clear(g_c), s	2.8	2.5	20.3	12.1	0.0	5.2	15.5	16.9	9.0	1.3	11.7	11.9
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	437	434	396	321	0	310	306	647	536	33	331	332
V/C Ratio(X)	0.16	0.14	0.90	0.79	0.00	0.37	1.13	0.64	0.38	0.82	0.74	0.75
Avail Cap(c_a), veh/h	522	519	473	558	0	540	306	695	575	60	402	403
HCM Platoon Ratio	1.00	1.00	1.00	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	25.6	25.5	32.1	35.3	0.0	32.4	37.2	24.6	22.1	44.0	34.4	34.5
Incr Delay (d2), s/veh	0.1	0.1	16.2	1.7	0.0	0.3	91.5	1.3	0.2	16.6	4.1	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	1.3	1.1	10.3	6.1	0.0	2.5	15.3	8.9	3.9	0.8	6.1	6.2
LnGrp Delay(d),s/veh	25.7	25.5	48.3	36.9	0.0	32.7	128.6	25.9	22.2	60.5	38.5	39.0
LnGrp LOS	C	C	D	D		C	F	C	C	E	D	D
Approach Vol, veh/h		484			368			968			519	
Approach Delay, s/veh		42.3			35.6			61.9			39.9	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.6	36.7		27.4	20.0	22.4		20.1
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	3.0	33.5		28.0	15.5	20.5		28.0
Max Q Clear Time (g_c+I1), s	3.3	18.9		22.3	17.5	13.9		14.1
Green Ext Time (p_c), s	0.0	3.7		0.6	0.0	2.5		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	48.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	14	9	78	24	260	15	605	86	313	706	8
Future Volume (veh/h)	9	14	9	78	24	260	15	605	86	313	706	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1845	1900	1881	1845	1863	1845	1900
Adj Flow Rate, veh/h	10	16	10	89	27	295	17	688	98	356	802	9
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	3	0	1	3	2	3	3
Cap, veh/h	115	164	82	293	78	642	22	786	649	403	1152	13
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.42	0.42	0.23	0.63	0.63
Sat Flow, veh/h	269	894	447	1101	424	1559	1810	1881	1553	1774	1821	20
Grp Volume(v), veh/h	36	0	0	116	0	295	17	688	98	356	0	811
Grp Sat Flow(s),veh/h/ln	1610	0	0	1525	0	1559	1810	1881	1553	1774	0	1841
Q Serve(g_s), s	0.0	0.0	0.0	3.3	0.0	9.6	0.7	23.4	2.7	13.5	0.0	20.2
Cycle Q Clear(g_c), s	1.2	0.0	0.0	4.5	0.0	9.6	0.7	23.4	2.7	13.5	0.0	20.2
Prop In Lane	0.28		0.28	0.77		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	361	0	0	371	0	642	22	786	649	403	0	1165
V/C Ratio(X)	0.10	0.00	0.00	0.31	0.00	0.46	0.78	0.88	0.15	0.88	0.00	0.70
Avail Cap(c_a), veh/h	484	0	0	493	0	769	143	822	679	483	0	1165
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	0.0	25.0	0.0	15.0	34.4	18.6	12.6	26.1	0.0	8.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	0.5	19.4	10.1	0.1	14.9	0.0	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	0.0	2.0	0.0	4.2	0.4	14.3	1.2	8.3	0.0	10.7
LnGrp Delay(d),s/veh	23.9	0.0	0.0	25.5	0.0	15.5	53.8	28.8	12.7	41.0	0.0	10.2
LnGrp LOS	C			C		B	D	C	B	D		B
Approach Vol, veh/h		36			411			803			1167	
Approach Delay, s/veh		23.9			18.3			27.3			19.6	
Approach LOS		C			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.8	33.2		16.8	4.8	48.2		16.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	19.0	30.5		18.5	5.5	44.0		18.5
Max Q Clear Time (g_c+I1), s	15.5	25.4		3.2	2.7	22.2		11.6
Green Ext Time (p_c), s	0.3	3.7		1.7	0.0	12.0		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	22.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	46	58	64	52	43	137	324	84	30	134	314
Future Volume (veh/h)	53	46	58	64	52	43	137	324	84	30	134	314
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1843	1810	1845	1859	1900	1881	1870	1900	1845	1827	1881
Adj Flow Rate, veh/h	60	52	65	72	58	48	154	364	94	34	151	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	5	3	4	4	1	2	2	3	4	1
Cap, veh/h	132	114	211	242	130	107	201	819	209	70	402	352
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	0.29	0.29	0.04	0.22	0.00
Sat Flow, veh/h	962	834	1538	1757	942	780	1792	2805	716	1757	1827	1599
Grp Volume(v), veh/h	112	0	65	72	0	106	154	229	229	34	151	0
Grp Sat Flow(s),veh/h/ln	1795	0	1538	1757	0	1722	1792	1777	1744	1757	1827	1599
Q Serve(g_s), s	2.1	0.0	1.4	1.3	0.0	2.1	3.0	3.8	3.9	0.7	2.6	0.0
Cycle Q Clear(g_c), s	2.1	0.0	1.4	1.3	0.0	2.1	3.0	3.8	3.9	0.7	2.6	0.0
Prop In Lane	0.54		1.00	1.00		0.45	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	247	0	211	242	0	237	201	519	509	70	402	352
V/C Ratio(X)	0.45	0.00	0.31	0.30	0.00	0.45	0.77	0.44	0.45	0.48	0.38	0.00
Avail Cap(c_a), veh/h	1258	0	1078	888	0	871	960	1724	1692	314	1120	980
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	14.4	0.0	14.1	14.1	0.0	14.4	15.7	10.5	10.5	17.1	12.1	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.3	0.3	0.0	0.5	2.3	0.3	0.3	1.9	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	1.1	0.0	0.6	0.7	0.0	1.0	1.6	1.9	1.9	0.4	1.3	0.0
LnGrp Delay(d),s/veh	14.9	0.0	14.4	14.4	0.0	14.9	18.0	10.8	10.8	19.0	12.4	0.0
LnGrp LOS	B		B	B		B	B	B	B	B	B	
Approach Vol, veh/h		177			178			612			185	
Approach Delay, s/veh		14.7			14.7			12.6			13.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	14.3		8.5	7.1	11.7		9.1
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	6.5	35.3		25.5	19.5	22.3		18.4
Max Q Clear Time (g_c+I1), s	2.7	5.9		4.1	5.0	4.6		4.1
Green Ext Time (p_c), s	0.0	2.7		0.4	0.1	2.5		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	13.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	130	304	241	59	80	176
Future Vol, veh/h	130	304	241	59	80	176
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	91	91	91	91	91	91
Heavy Vehicles, %	3	1	2	2	4	5
Mvmt Flow	143	334	265	65	88	193

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	634	265	0	0	265	0
Stage 1	265	-	-	-	-	-
Stage 2	369	-	-	-	-	-
Critical Hdwy	6.43	6.21	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.309	-	-	2.236	-
Pot Cap-1 Maneuver	442	776	-	-	1287	-
Stage 1	777	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	408	776	-	-	1287	-
Mov Cap-2 Maneuver	408	-	-	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	643	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.7	0	2.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	611	1287	-
HCM Lane V/C Ratio	-	-	0.781	0.068	-
HCM Control Delay (s)	-	-	28.7	8	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	7.4	0.2	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	119	134	93	131	120	135
Future Vol, veh/h	119	134	93	131	120	135
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	86	86	86	86	86	86
Heavy Vehicles, %	4	4	2	7	5	3
Mvmt Flow	138	156	108	152	140	157

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	294	0	585	216
Stage 1	-	-	-	-	216	-
Stage 2	-	-	-	-	369	-
Critical Hdwy	-	-	4.12	-	6.45	6.23
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.327
Pot Cap-1 Maneuver	-	-	1268	-	468	821
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	693	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1268	-	424	821
Mov Cap-2 Maneuver	-	-	-	-	424	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	629	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	18
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	570	-	-	1268	-
HCM Lane V/C Ratio	0.52	-	-	0.085	-
HCM Control Delay (s)	18	-	-	8.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	3	-	-	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	215	177	554	192	24	180	807	520	29	801	123
Future Volume (veh/h)	139	215	177	554	192	24	180	807	520	29	801	123
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1881	1845	1881	1863	1900	1792	1827	1863	1900	1863	1845
Adj Flow Rate, veh/h	148	229	188	589	204	26	191	859	553	31	852	131
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	1	3	1	2	0	6	4	2	0	2	3
Cap, veh/h	183	372	310	595	493	422	173	1236	835	45	990	602
Arrive On Green	0.10	0.20	0.20	0.17	0.26	0.26	0.10	0.36	0.36	0.02	0.28	0.28
Sat Flow, veh/h	1757	1881	1568	3476	1863	1594	1707	3471	1583	1810	3539	1568
Grp Volume(v), veh/h	148	229	188	589	204	26	191	859	553	31	852	131
Grp Sat Flow(s),veh/h/ln	1757	1881	1568	1738	1863	1594	1707	1736	1583	1810	1770	1568
Q Serve(g_s), s	6.6	8.9	8.7	13.5	7.2	1.0	8.1	16.9	20.3	1.4	18.3	4.5
Cycle Q Clear(g_c), s	6.6	8.9	8.7	13.5	7.2	1.0	8.1	16.9	20.3	1.4	18.3	4.5
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	372	310	595	493	422	173	1236	835	45	990	602
V/C Ratio(X)	0.81	0.62	0.61	0.99	0.41	0.06	1.10	0.70	0.66	0.69	0.86	0.22
Avail Cap(c_a), veh/h	244	565	471	595	620	530	173	1236	835	113	1071	638
HCM Platoon Ratio	1.00	1.00	1.00	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	35.0	29.3	29.2	33.1	24.3	22.0	35.9	22.0	13.7	38.7	27.3	16.6
Incr Delay (d2), s/veh	13.6	3.5	4.0	34.0	1.2	0.1	99.2	2.2	2.6	17.0	7.8	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	3.9	4.9	4.1	9.3	3.9	0.4	8.6	8.5	9.3	0.9	9.9	2.0
LnGrp Delay(d),s/veh	48.6	32.8	33.3	67.1	25.5	22.1	135.2	24.2	16.4	55.7	35.1	16.9
LnGrp LOS	D	C	C	E	C	C	F	C	B	E	D	B
Approach Vol, veh/h		565			819			1603			1014	
Approach Delay, s/veh		37.1			55.3			34.7			33.4	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	34.0	18.2	21.3	12.6	27.9	12.8	26.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	27.3	13.7	24.0	8.1	24.2	11.1	26.6
Max Q Clear Time (g_c+I1), s	3.4	22.3	15.5	10.9	10.1	20.3	8.6	9.2
Green Ext Time (p_c), s	0.0	4.9	0.0	4.9	0.0	2.1	0.1	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	38.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	69	215	0	72	0	1424	182	101	1431	0
Future Volume (vph)	0	0	69	215	0	72	0	1424	182	101	1431	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.95	
Frpb, ped/bikes			0.97	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1577	1805		1455		5036	1599	1752	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1577	1805		1455		5036	1599	1752	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	72	224	0	75	0	1483	190	105	1491	0
RTOR Reduction (vph)	0	0	70	0	0	55	0	0	79	0	0	0
Lane Group Flow (vph)	0	0	2	224	0	20	0	1483	111	105	1491	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	Perm
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			2
Actuated Green, G (s)			1.7	8.5		14.7		23.3	31.8	3.1	30.4	
Effective Green, g (s)			1.7	8.5		14.7		23.3	31.8	3.1	30.4	
Actuated g/C Ratio			0.03	0.16		0.27		0.43	0.58	0.06	0.56	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			49	280		391		2149	931	99	1970	
v/s Ratio Prot				c0.12				0.29	0.02	0.06	c0.42	
v/s Ratio Perm			0.00			c0.01			0.05			
v/c Ratio			0.05	0.80		0.05		0.69	0.12	1.06	0.76	
Uniform Delay, d1			25.7	22.2		14.8		12.7	5.1	25.8	9.3	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.4	15.0		0.1		1.0	0.1	107.8	1.8	
Delay (s)			26.1	37.2		14.9		13.8	5.2	133.5	11.1	
Level of Service			C	D		B		B	A	F	B	
Approach Delay (s)		26.1			31.6			12.8			19.1	
Approach LOS		C			C			B			B	

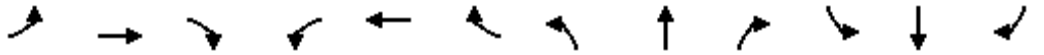
Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	54.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	23	298	118	24	23	301	1678	98	64	1789	143
Future Volume (veh/h)	159	23	298	118	24	23	301	1678	98	64	1789	143
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1863	1881	1845	1863	1881
Adj Flow Rate, veh/h	166	24	310	123	25	24	314	1748	102	67	1864	149
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	1	3	2	1
Cap, veh/h	197	251	382	152	194	178	350	2056	928	87	1519	677
Arrive On Green	0.11	0.14	0.14	0.09	0.11	0.11	0.20	0.58	0.58	0.05	0.43	0.43
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	3539	1598	1757	3539	1577
Grp Volume(v), veh/h	166	24	310	123	25	24	314	1748	102	67	1864	149
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1770	1598	1757	1770	1577
Q Serve(g_s), s	10.9	1.3	12.6	8.0	1.5	1.6	20.5	47.7	3.3	4.4	50.0	6.9
Cycle Q Clear(g_c), s	10.9	1.3	12.6	8.0	1.5	1.6	20.5	47.7	3.3	4.4	50.0	6.9
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	197	251	382	152	194	178	350	2056	928	87	1519	677
V/C Ratio(X)	0.84	0.10	0.81	0.81	0.13	0.13	0.90	0.85	0.11	0.77	1.23	0.22
Avail Cap(c_a), veh/h	448	470	718	452	453	416	672	2056	928	302	1519	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)	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	50.6	43.9	48.8	52.2	46.8	46.8	45.4	20.2	10.9	54.7	33.3	21.0
Incr Delay (d2), s/veh	9.2	0.2	4.2	9.6	0.3	0.3	8.3	3.9	0.1	13.5	108.3	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	5.8	0.7	5.1	4.3	0.7	0.7	10.7	24.2	1.5	2.5	47.1	3.1
LnGrp Delay(d),s/veh	59.8	44.1	53.0	61.9	47.1	47.1	53.6	24.2	11.0	68.2	141.5	21.3
LnGrp LOS	E	D	D	E	D	D	D	C	B	E	F	C
Approach Vol, veh/h		500			172			2164			2080	
Approach Delay, s/veh		54.8			57.7			27.8			130.6	
Approach LOS		D			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	72.7	14.1	20.0	27.4	55.0	17.2	16.9
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	6.4	49.7	10.0	14.6	22.5	52.0	12.9	3.6
Green Ext Time (p_c), s	0.1	0.3	0.3	1.4	0.9	0.0	0.4	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	75.1
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	0	550	603	200	490	570	1363	418	0	1963	261
Future Volume (veh/h)	245	0	550	603	200	490	570	1363	418	0	1963	261
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1881	1863	1833	1776	1900	1863	1845	0	1810	1900
Adj Flow Rate, veh/h	255	0	573	628	434	359	594	1420	435	0	2045	272
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	1	2	1	7	0	2	3	0	5	0
Cap, veh/h	178	0	0	1362	460	379	376	2747	847	0	1484	485
Arrive On Green	0.10	0.00	0.00	0.38	0.25	0.25	0.42	1.00	1.00	0.00	0.30	0.30
Sat Flow, veh/h	1810	255		3548	1833	1509	1810	5085	1568	0	5103	1615
Grp Volume(v), veh/h	255	287.9		628	434	359	594	1420	435	0	2045	272
Grp Sat Flow(s),veh/h/ln	1810	F		1774	1833	1509	1810	1695	1568	0	1647	1615
Q Serve(g_s), s	14.4			19.3	33.9	34.1	30.3	0.0	0.0	0.0	43.9	20.7
Cycle Q Clear(g_c), s	14.4			19.3	33.9	34.1	30.3	0.0	0.0	0.0	43.9	20.7
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	178			1362	460	379	376	2747	847	0	1484	485
V/C Ratio(X)	1.43			0.46	0.94	0.95	1.58	0.52	0.51	0.00	1.38	0.56
Avail Cap(c_a), veh/h	178			1419	490	403	376	2747	847	0	1484	485
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	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	0.21	0.21
Uniform Delay (d), s/veh	65.8			33.7	53.7	53.7	42.7	0.0	0.0	0.0	51.1	43.0
Incr Delay (d2), s/veh	222.1			0.1	25.8	30.2	274.2	0.7	2.2	0.0	170.9	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
%ile BackOfQ(50%),veh/ln	18.2			9.5	20.5	17.4	43.6	0.2	0.5	0.0	43.4	9.4
LnGrp Delay(d),s/veh	287.9			33.8	79.5	84.0	316.9	0.7	2.2	0.0	222.0	43.9
LnGrp LOS	F			C	E	F	F	A	A		F	D
Approach Vol, veh/h					1421			2449			2317	
Approach Delay, s/veh					60.4			77.7			201.1	
Approach LOS					E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		85.1	60.9		35.0	50.1	19.0	41.9
Change Period (Y+Rc), s		6.2	4.9		* 4.7	6.2	4.6	5.3
Max Green Setting (Gmax), s		76.5	58.4		* 30	41.5	14.4	39.0
Max Q Clear Time (g_c+I1), s		2.0	21.3		32.3	45.9	16.4	36.1
Green Ext Time (p_c), s		26.4	0.5		0.0	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	126.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	730	362	160	238	0	539	0	1401	231	612	1181	563
Future Volume (veh/h)	730	362	160	238	0	539	0	1401	231	612	1181	563
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1827	1900	0	1900	0	1776	1900	1881	1845	1827
Adj Flow Rate, veh/h	753	373	165	245	0	556	0	1444	238	631	1218	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	4	0	0	0	0	7	0	1	3	4
Cap, veh/h	1027	441	193	258	0	0	0	1489	394	1186	2199	974
Arrive On Green	0.30	0.12	0.12	0.14	0.00	0.00	0.00	0.24	0.24	0.68	1.00	0.00
Sat Flow, veh/h	3442	3539	1553	1810	245		0	6357	1615	3476	3505	1553
Grp Volume(v), veh/h	753	373	165	245	104.2		0	1444	238	631	1218	0
Grp Sat Flow(s),veh/h/ln	1721	1770	1553	1810	F		0	1527	1615	1738	1752	1553
Q Serve(g_s), s	28.7	15.1	15.2	19.6			0.0	34.2	13.6	13.2	0.0	0.0
Cycle Q Clear(g_c), s	28.7	15.1	15.2	19.6			0.0	34.2	13.6	13.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1027	441	193	258			0	1489	394	1186	2199	974
V/C Ratio(X)	0.73	0.85	0.85	0.95			0.00	0.97	0.60	0.53	0.55	0.00
Avail Cap(c_a), veh/h	1027	1018	447	258			0	1489	394	1186	2199	974
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00			0.00	0.88	0.88	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.0	62.5	62.6	62.1			0.0	54.7	24.9	17.4	0.0	0.0
Incr Delay (d2), s/veh	2.6	1.8	4.1	42.1			0.0	15.7	5.9	0.2	1.0	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
%ile BackOfQ(50%),veh/ln	14.0	7.5	6.7	12.8			0.0	16.1	6.7	6.2	0.3	0.0
LnGrp Delay(d),s/veh	48.6	64.3	66.7	104.2			0.0	70.4	30.9	17.6	1.0	0.0
LnGrp LOS	D	E	E	F				E	C	B	A	
Approach Vol, veh/h		1291						1682			1849	
Approach Delay, s/veh		55.4						64.8			6.7	
Approach LOS		E						E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	56.0	41.8	25.4	22.8		97.8	48.2	
Change Period (Y+Rc), s	6.2	* 6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	27.6	* 36	20.8	42.0		67.8	36.3	
Max Q Clear Time (g_c+I1), s	15.2	36.2	21.6	17.2		2.0	30.7	
Green Ext Time (p_c), s	3.7	0.0	0.0	1.0		4.4	1.3	

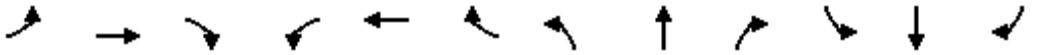
Intersection Summary	
HCM 2010 Ctrl Delay	43.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	0	73	90	0	178	77	1427	177	0	1349	143
Future Volume (veh/h)	131	0	73	90	0	178	77	1427	177	0	1349	143
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1267	1776	1863	1867	1900	0	1863	1863
Adj Flow Rate, veh/h	142	0	79	94	0	185	84	1486	184	0	1405	155
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	2	2	7	2	2	2	0	2	2
Cap, veh/h	187	0	167	177	0	222	99	3485	431	0	1741	779
Arrive On Green	0.11	0.00	0.11	0.15	0.00	0.15	0.06	0.60	0.60	0.00	0.49	0.49
Sat Flow, veh/h	1774	0	1583	1206	0	1509	1774	5834	721	0	3632	1583
Grp Volume(v), veh/h	142	0	79	94	0	185	84	1227	443	0	1405	155
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1206	0	1509	1774	1605	1739	0	1770	1583
Q Serve(g_s), s	7.0	0.0	4.2	6.5	0.0	10.7	4.2	12.4	12.4	0.0	30.1	5.0
Cycle Q Clear(g_c), s	7.0	0.0	4.2	6.5	0.0	10.7	4.2	12.4	12.4	0.0	30.1	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	0.00		1.00
Lane Grp Cap(c), veh/h	187	0	167	177	0	222	99	2877	1039	0	1741	779
V/C Ratio(X)	0.76	0.00	0.47	0.53	0.00	0.83	0.85	0.43	0.43	0.00	0.81	0.20
Avail Cap(c_a), veh/h	355	0	317	241	0	302	99	2877	1039	0	1741	779
HCM Platoon Ratio	1.00	1.00	1.00	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	0.79	0.79	0.79	0.00	0.75	0.75
Uniform Delay (d), s/veh	39.1	0.0	37.9	35.5	0.0	37.3	42.1	9.8	9.8	0.0	19.3	12.9
Incr Delay (d2), s/veh	6.2	0.0	2.1	2.4	0.0	13.5	40.0	0.4	1.0	0.0	3.1	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	3.8	0.0	1.9	2.3	0.0	5.3	3.2	5.5	6.2	0.0	15.4	2.2
LnGrp Delay(d),s/veh	45.3	0.0	40.0	38.0	0.0	50.9	82.1	10.2	10.8	0.0	22.4	13.3
LnGrp LOS	D		D	D		D	F	B	B		C	B
Approach Vol, veh/h		221			279			1754			1560	
Approach Delay, s/veh		43.4			46.5			13.8			21.5	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		58.3		14.0	9.5	48.8		17.7
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		40.5		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s		14.4		9.0	6.2	32.1		12.7
Green Ext Time (p_c), s		23.4		0.5	0.0	0.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	3	114	1	102	1	1576	126	122	1384	5
Future Volume (veh/h)	3	0	3	114	1	102	1	1576	126	122	1384	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1827	1900	1900	1900	1863	1881	1727	1863	1900
Adj Flow Rate, veh/h	3	0	3	118	1	105	1	1625	130	126	1427	5
Adj No. of Lanes	1	1	0	2	1	1	1	3	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	4	0	0	0	2	1	10	2	0
Cap, veh/h	7	0	32	237	164	139	3	2515	790	157	2083	950
Arrive On Green	0.00	0.00	0.02	0.07	0.09	0.09	0.00	0.49	0.49	0.10	0.59	0.59
Sat Flow, veh/h	1810	0	1615	3375	1900	1615	1810	5085	1597	1645	3539	1614
Grp Volume(v), veh/h	3	0	3	118	1	105	1	1625	130	126	1427	5
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1688	1900	1615	1810	1695	1597	1645	1770	1614
Q Serve(g_s), s	0.1	0.0	0.1	2.1	0.0	3.9	0.0	14.7	2.8	4.6	17.2	0.1
Cycle Q Clear(g_c), s	0.1	0.0	0.1	2.1	0.0	3.9	0.0	14.7	2.8	4.6	17.2	0.1
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	7	0	32	237	164	139	3	2515	790	157	2083	950
V/C Ratio(X)	0.41	0.00	0.09	0.50	0.01	0.76	0.34	0.65	0.16	0.80	0.68	0.01
Avail Cap(c_a), veh/h	146	0	850	403	1074	913	146	2653	833	210	2083	950
HCM Platoon Ratio	1.00	1.00	1.00	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	30.8	0.0	29.8	27.7	25.9	27.7	30.9	11.6	8.6	27.4	8.8	5.3
Incr Delay (d2), s/veh	32.5	0.0	1.5	1.6	0.0	9.6	57.9	0.6	0.1	14.8	1.0	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	0.0	0.1	1.0	0.0	2.1	0.1	6.9	1.2	2.7	8.6	0.0
LnGrp Delay(d),s/veh	63.3	0.0	31.3	29.4	25.9	37.2	88.8	12.2	8.7	42.2	9.8	5.3
LnGrp LOS	E		C	C	C	D	F	B	A	D	A	A
Approach Vol, veh/h		6			224			1756			1558	
Approach Delay, s/veh		47.3			33.0			12.0			12.4	
Approach LOS		D			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	36.4	8.8	6.2	4.6	42.2	4.8	10.3
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	7.9	32.3	7.4	32.6	5.0	35.2	5.0	35.0
Max Q Clear Time (g_c+I1), s	6.6	16.7	4.1	2.1	2.0	19.2	2.1	5.9
Green Ext Time (p_c), s	0.0	13.9	0.1	0.4	0.0	15.3	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	37	20	15	1666	1474	27
Future Volume (veh/h)	37	20	15	1666	1474	27
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1900	1863	1846	1900
Adj Flow Rate, veh/h	40	22	16	1811	1602	29
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	2	3	3
Cap, veh/h	209	99	37	2462	2895	52
Arrive On Green	0.06	0.06	0.02	0.70	0.57	0.57
Sat Flow, veh/h	3408	1615	1810	3632	5262	92
Grp Volume(v), veh/h	40	22	16	1811	1056	575
Grp Sat Flow(s),veh/h/ln	1704	1615	1810	1770	1680	1829
Q Serve(g_s), s	0.5	0.5	0.4	13.4	8.3	8.3
Cycle Q Clear(g_c), s	0.5	0.5	0.4	13.4	8.3	8.3
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	209	99	37	2462	1908	1039
V/C Ratio(X)	0.19	0.22	0.44	0.74	0.55	0.55
Avail Cap(c_a), veh/h	1503	712	216	2640	1908	1039
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	18.7	18.7	20.3	4.0	5.7	5.7
Incr Delay (d2), s/veh	0.4	1.1	8.0	1.1	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	6.7	3.9	4.4
LnGrp Delay(d),s/veh	19.1	19.9	28.3	5.1	6.1	6.4
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	62			1827	1631	
Approach Delay, s/veh	19.4			5.3	6.2	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		7.1	5.4	29.5				34.9
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		18.5	5.0	21.8				31.3
Max Q Clear Time (g_c+I1), s		2.5	2.4	10.3				15.4
Green Ext Time (p_c), s		0.1	0.0	11.3				13.8

Intersection Summary	
HCM 2010 Ctrl Delay	6.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	300	337	95	278	215	352	1191	97	196	1021	254
Future Volume (veh/h)	312	300	337	95	278	215	352	1191	97	196	1021	254
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1881	1863	1840	1900	1827	1856	1900	1863	1863	1827
Adj Flow Rate, veh/h	325	312	351	99	290	224	367	1241	101	204	1064	265
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	1	2	5	5	4	2	2	2	2	4
Cap, veh/h	338	1045	467	101	305	227	452	1163	94	203	1693	506
Arrive On Green	0.19	0.30	0.30	0.06	0.16	0.16	0.13	0.35	0.35	0.11	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	1882	1404	3375	3301	268	1774	5085	1521
Grp Volume(v), veh/h	325	312	351	99	269	245	367	662	680	204	1064	265
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1748	1538	1688	1763	1806	1774	1695	1521
Q Serve(g_s), s	19.1	7.2	21.1	5.9	16.0	16.7	11.1	37.0	37.0	12.0	18.5	14.8
Cycle Q Clear(g_c), s	19.1	7.2	21.1	5.9	16.0	16.7	11.1	37.0	37.0	12.0	18.5	14.8
Prop In Lane	1.00		1.00	1.00		0.91	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	338	1045	467	101	283	249	452	621	636	203	1693	506
V/C Ratio(X)	0.96	0.30	0.75	0.98	0.95	0.99	0.81	1.06	1.07	1.01	0.63	0.52
Avail Cap(c_a), veh/h	338	1045	467	101	283	249	547	621	636	203	1693	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	42.1	28.6	33.5	49.4	43.6	43.9	44.2	34.0	34.0	46.5	29.5	28.3
Incr Delay (d2), s/veh	38.7	0.6	9.6	81.6	40.1	52.8	10.0	54.6	55.6	64.8	0.9	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	12.9	3.6	10.4	5.2	10.8	10.7	5.8	27.4	28.2	9.5	8.8	6.4
LnGrp Delay(d),s/veh	80.9	29.2	43.1	131.0	83.7	96.6	54.2	88.6	89.6	111.3	30.4	29.6
LnGrp LOS	F	C	D	F	F	F	D	F	F	F	C	C
Approach Vol, veh/h		988			613			1709			1533	
Approach Delay, s/veh		51.1			96.5			81.6			41.0	
Approach LOS		D			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	42.0	10.0	37.0	18.0	40.0	24.0	23.0
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	12.0	37.0	6.0	31.0	17.0	32.0	20.0	17.0
Max Q Clear Time (g_c+I1), s	14.0	39.0	7.9	23.1	13.1	20.5	21.1	18.7
Green Ext Time (p_c), s	0.0	0.0	0.0	5.8	1.0	11.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	64.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	23	97	46	10	42	107	432	58	40	523	81
Future Volume (veh/h)	58	23	97	46	10	42	107	432	58	40	523	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1771	1810	1900	1729	1900	1792	1803	1900	1597	1863	1863
Adj Flow Rate, veh/h	64	25	107	51	11	46	118	475	64	44	575	89
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	26	26	5	0	0	0	6	5	5	19	2	2
Cap, veh/h	90	20	576	95	11	605	146	593	80	63	628	522
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.09	0.38	0.38	0.04	0.34	0.34
Sat Flow, veh/h	0	53	1536	0	29	1613	1707	1556	210	1521	1863	1548
Grp Volume(v), veh/h	89	0	107	62	0	46	118	0	539	44	575	89
Grp Sat Flow(s),veh/h/ln	54	0	1536	29	0	1613	1707	0	1766	1521	1863	1548
Q Serve(g_s), s	0.0	0.0	3.2	0.0	0.0	1.3	4.7	0.0	18.8	2.0	20.5	2.8
Cycle Q Clear(g_c), s	25.9	0.0	3.2	25.9	0.0	1.3	4.7	0.0	18.8	2.0	20.5	2.8
Prop In Lane	0.72		1.00	0.82		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	110	0	576	106	0	605	146	0	673	63	628	522
V/C Ratio(X)	0.81	0.00	0.19	0.59	0.00	0.08	0.81	0.00	0.80	0.70	0.92	0.17
Avail Cap(c_a), veh/h	110	0	576	106	0	605	146	0	673	119	652	542
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	0.0	14.5	30.1	0.0	13.9	31.0	0.0	19.0	32.7	22.0	16.1
Incr Delay (d2), s/veh	35.8	0.0	0.2	8.8	0.0	0.1	28.2	0.0	8.2	15.3	18.8	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	2.8	0.0	1.4	1.4	0.0	0.6	3.3	0.0	10.7	1.1	13.7	1.2
LnGrp Delay(d),s/veh	64.6	0.0	14.7	38.8	0.0	14.0	59.3	0.0	27.3	48.0	40.8	16.5
LnGrp LOS	E		B	D		B	E		C	D	D	B
Approach Vol, veh/h		196			108			657			708	
Approach Delay, s/veh		37.3			28.2			33.0			38.2	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.0	31.7		30.4	10.0	28.7		30.4
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	5.4	24.7		25.9	5.9	24.2		25.9
Max Q Clear Time (g_c+I1), s	4.0	20.8		27.9	6.7	22.5		27.9
Green Ext Time (p_c), s	0.0	3.3		0.0	0.0	0.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	111	19	586	121	232	14	642	569	199	553	45
Future Volume (veh/h)	50	111	19	586	121	232	14	642	569	199	553	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1850	1881	1900	1845	1881	1827	1859	1900
Adj Flow Rate, veh/h	53	118	20	715	0	247	15	683	605	212	588	48
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	6	1	0	3	1	4	2	2
Cap, veh/h	156	267	44	904	0	401	26	1181	538	171	1389	113
Arrive On Green	0.09	0.09	0.09	0.25	0.00	0.25	0.01	0.34	0.34	0.10	0.42	0.42
Sat Flow, veh/h	1810	3092	512	3583	0	1589	1810	3505	1596	1740	3300	269
Grp Volume(v), veh/h	53	68	70	715	0	247	15	683	605	212	314	322
Grp Sat Flow(s),veh/h/ln	1810	1805	1799	1792	0	1589	1810	1752	1596	1740	1766	1804
Q Serve(g_s), s	2.3	2.9	3.0	15.2	0.0	11.2	0.7	13.1	27.5	8.0	10.2	10.3
Cycle Q Clear(g_c), s	2.3	2.9	3.0	15.2	0.0	11.2	0.7	13.1	27.5	8.0	10.2	10.3
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	156	156	155	904	0	401	26	1181	538	171	743	759
V/C Ratio(X)	0.34	0.43	0.45	0.79	0.00	0.62	0.59	0.58	1.13	1.24	0.42	0.42
Avail Cap(c_a), veh/h	621	619	617	1229	0	545	89	1181	538	171	743	759
HCM Platoon Ratio	1.00	1.00	1.00	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	35.1	35.4	35.5	28.5	0.0	27.0	40.0	22.3	27.1	36.8	16.7	16.7
Incr Delay (d2), s/veh	1.3	1.9	2.1	2.5	0.0	1.5	19.5	0.9	78.1	149.1	0.5	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	1.2	1.5	1.6	7.9	0.0	5.1	0.5	6.5	23.6	10.9	5.1	5.2
LnGrp Delay(d),s/veh	36.4	37.3	37.5	31.0	0.0	28.6	59.6	23.2	105.1	185.9	17.2	17.2
LnGrp LOS	D	D	D	C		C	E	C	F	F	B	B
Approach Vol, veh/h		191			962			1303			848	
Approach Delay, s/veh		37.1			30.4			61.6			59.4	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	32.5		12.0	5.2	39.3		25.1
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	8.0	27.5		28.0	4.0	31.5		28.0
Max Q Clear Time (g_c+I1), s	10.0	29.5		5.0	2.7	12.3		17.2
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	14.2		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	50.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	279	733	14	22	723	504	43	15	22	450	24	273
Future Volume (veh/h)	279	733	14	22	723	504	43	15	22	450	24	273
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1882	1900	1810	1881	1827	1900	1846	1900	1881	1875	1863
Adj Flow Rate, veh/h	297	780	15	23	769	0	46	16	23	498	0	290
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	5	1	4	0	0	0	1	4	2
Cap, veh/h	298	1543	30	34	1012	440	145	55	79	881	0	387
Arrive On Green	0.17	0.43	0.43	0.02	0.28	0.00	0.08	0.08	0.08	0.25	0.00	0.25
Sat Flow, veh/h	1792	3588	69	1723	3574	1553	1810	679	977	3583	0	1576
Grp Volume(v), veh/h	297	389	406	23	769	0	46	0	39	498	0	290
Grp Sat Flow(s),veh/h/ln	1792	1787	1869	1723	1787	1553	1810	0	1656	1792	0	1576
Q Serve(g_s), s	14.4	13.8	13.8	1.2	17.1	0.0	2.1	0.0	1.9	10.6	0.0	14.8
Cycle Q Clear(g_c), s	14.4	13.8	13.8	1.2	17.1	0.0	2.1	0.0	1.9	10.6	0.0	14.8
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	298	769	804	34	1012	440	145	0	133	881	0	387
V/C Ratio(X)	1.00	0.51	0.51	0.68	0.76	0.00	0.32	0.00	0.29	0.57	0.00	0.75
Avail Cap(c_a), veh/h	298	769	804	113	1109	482	145	0	133	1317	0	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)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.2	18.1	18.1	42.4	28.5	0.0	37.8	0.0	37.7	28.8	0.0	30.3
Incr Delay (d2), s/veh	50.7	1.9	1.8	21.4	4.7	0.0	5.6	0.0	5.5	0.8	0.0	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	11.3	7.2	7.5	0.8	9.1	0.0	1.3	0.0	1.1	5.4	0.0	6.9
LnGrp Delay(d),s/veh	87.0	19.9	19.9	63.8	33.2	0.0	43.4	0.0	43.2	29.6	0.0	34.5
LnGrp LOS	F	B	B	E	C		D		D	C		C
Approach Vol, veh/h		1092			792			85			788	
Approach Delay, s/veh		38.1			34.1			43.3			31.4	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.0	6.2	42.4		26.4	19.0	29.7
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		7.0	5.7	35.8		32.0	14.5	27.0
Max Q Clear Time (g_c+I1), s		4.1	3.2	15.8		16.8	16.4	19.1
Green Ext Time (p_c), s		0.1	0.0	17.1		4.1	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	35.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	813	478	511	1105	0	0	0	0	33	2	192
Future Volume (veh/h)	0	813	478	511	1105	0	0	0	0	33	2	192
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1845	1863	0				1827	1863	1900
Adj Flow Rate, veh/h	0	856	503	538	1163	0				35	2	202
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	3	2	0				4	0	4
Cap, veh/h	0	1289	575	558	2634	0				267	2	241
Arrive On Green	0.00	0.36	0.36	0.32	0.74	0.00				0.15	0.15	0.15
Sat Flow, veh/h	0	3632	1579	1757	3632	0				1740	16	1570
Grp Volume(v), veh/h	0	856	503	538	1163	0				35	0	204
Grp Sat Flow(s),veh/h/ln	0	1770	1579	1757	1770	0				1740	0	1586
Q Serve(g_s), s	0.0	18.3	26.7	27.1	11.3	0.0				1.6	0.0	11.2
Cycle Q Clear(g_c), s	0.0	18.3	26.7	27.1	11.3	0.0				1.6	0.0	11.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1289	575	558	2634	0				267	0	243
V/C Ratio(X)	0.00	0.66	0.87	0.96	0.44	0.00				0.13	0.00	0.84
Avail Cap(c_a), veh/h	0	1289	575	558	2634	0				445	0	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.35	0.35	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.0	26.7	30.2	4.4	0.0				32.9	0.0	37.0
Incr Delay (d2), s/veh	0.0	2.3	14.6	14.6	0.2	0.0				0.1	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.3	13.9	15.4	5.4	0.0				0.8	0.0	5.1
LnGrp Delay(d),s/veh	0.0	26.3	41.3	44.8	4.6	0.0				33.0	0.0	40.2
LnGrp LOS		C	D	D	A					C		D
Approach Vol, veh/h		1359			1701						239	
Approach Delay, s/veh		31.8			17.3						39.1	
Approach LOS		C			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	34.2	37.9		17.9		72.1		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	28.6	23.6		23.0		57.8		
Max Q Clear Time (g_c+I1), s	29.1	28.7		13.2		13.3		
Green Ext Time (p_c), s	0.0	0.0		0.6		17.6		

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	680	0	0	1067	76	549	3	491	0	0	0
Future Volume (veh/h)	166	680	0	0	1067	76	549	3	491	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1881	1881	0	0	1848	1900	1845	1832	1827			
Adj Flow Rate, veh/h	184	756	0	0	1186	84	781	0	365			
Adj No. of Lanes	1	2	0	0	2	0	2	0	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	1	1	0	0	3	3	3	33	4			
Cap, veh/h	226	2136	0	0	1390	98	944	0	417			
Arrive On Green	0.13	0.60	0.00	0.00	0.42	0.42	0.27	0.00	0.27			
Sat Flow, veh/h	1792	3668	0	0	3420	235	3514	0	1553			
Grp Volume(v), veh/h	184	756	0	0	625	645	781	0	365			
Grp Sat Flow(s),veh/h/ln	1792	1787	0	0	1756	1807	1757	0	1553			
Q Serve(g_s), s	6.5	7.0	0.0	0.0	20.9	21.0	13.6	0.0	14.6			
Cycle Q Clear(g_c), s	6.5	7.0	0.0	0.0	20.9	21.0	13.6	0.0	14.6			
Prop In Lane	1.00		0.00	0.00		0.13	1.00		1.00			
Lane Grp Cap(c), veh/h	226	2136	0	0	733	755	944	0	417			
V/C Ratio(X)	0.81	0.35	0.00	0.00	0.85	0.85	0.83	0.00	0.88			
Avail Cap(c_a), veh/h	234	2136	0	0	733	755	968	0	428			
HCM Platoon Ratio	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	0.00	0.00	0.84	0.84	1.00	0.00	1.00			
Uniform Delay (d), s/veh	27.7	6.7	0.0	0.0	17.1	17.1	22.4	0.0	22.7			
Incr Delay (d2), s/veh	12.5	0.3	0.0	0.0	10.4	10.2	6.2	0.0	18.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.0	3.5	0.0	0.0	12.2	12.5	7.3	0.0	8.3			
LnGrp Delay(d),s/veh	40.2	7.0	0.0	0.0	27.5	27.4	28.6	0.0	40.9			
LnGrp LOS	D	A			C	C	C		D			
Approach Vol, veh/h		940			1270			1146				
Approach Delay, s/veh		13.5			27.4			32.5				
Approach LOS		B			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		43.4			11.7	31.7		21.6
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		38.4			8.5	26.4		17.9
Max Q Clear Time (g_c+I1), s		9.0			8.5	23.0		16.6
Green Ext Time (p_c), s		12.2			0.0	2.6		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	25.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1004	84	16	1052	0	91	0	20	0	0	0
Future Volume (veh/h)	59	1004	84	16	1052	0	91	0	20	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1864	1900	1900	1845	0	1900	0	1900			
Adj Flow Rate, veh/h	64	1091	91	17	1143	0	99	0	22			
Adj No. of Lanes	1	2	0	1	2	0	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	3	0	0	0	0			
Cap, veh/h	134	1956	163	31	1875	0	146	0	130			
Arrive On Green	0.07	0.59	0.59	0.02	0.53	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	1810	3303	275	1810	3597	0	1810	0	1615			
Grp Volume(v), veh/h	64	585	597	17	1143	0	99	0	22			
Grp Sat Flow(s),veh/h/ln	1810	1771	1808	1810	1752	0	1810	0	1615			
Q Serve(g_s), s	1.5	8.8	8.8	0.4	9.8	0.0	2.3	0.0	0.6			
Cycle Q Clear(g_c), s	1.5	8.8	8.8	0.4	9.8	0.0	2.3	0.0	0.6			
Prop In Lane	1.00		0.15	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	134	1049	1070	31	1875	0	146	0	130			
V/C Ratio(X)	0.48	0.56	0.56	0.55	0.61	0.00	0.68	0.00	0.17			
Avail Cap(c_a), veh/h	249	1049	1070	229	1972	0	873	0	779			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	19.3	5.4	5.4	21.2	7.0	0.0	19.5	0.0	18.7			
Incr Delay (d2), s/veh	2.6	1.4	1.4	14.4	1.0	0.0	5.4	0.0	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			
%ile BackOfQ(50%),veh/ln	0.8	4.6	4.7	0.3	4.9	0.0	1.4	0.0	0.3			
LnGrp Delay(d),s/veh	21.9	6.8	6.8	35.6	8.0	0.0	24.8	0.0	19.3			
LnGrp LOS	C	A	A	D	A		C		B			
Approach Vol, veh/h		1246			1160			121				
Approach Delay, s/veh		7.6			8.4			23.8				
Approach LOS		A			A			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	4.7	30.8			7.2	28.3		8.0
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.5	25.0			6.0	24.5		21.0
Max Q Clear Time (g_c+I1), s	2.4	10.8			3.5	11.8		4.3
Green Ext Time (p_c), s	0.0	13.8			0.0	11.5		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	7	1606	1715	0
Future Vol, veh/h	0	0	7	1606	1715	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	7	1656	1768	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	884	1768	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	292	357	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	292	357	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	357	-	-	-	-
HCM Lane V/C Ratio	0.02	-	-	-	-
HCM Control Delay (s)	15.3	-	0	-	-
HCM Lane LOS	C	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	81	106	130	466	380	80
Future Vol, veh/h	81	106	130	466	380	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	370	-	220	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	2	1	9
Mvmt Flow	88	115	141	507	413	87

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	993	250	500	0	-	0
Stage 1	457	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.2	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.25	-	-	-
Pot Cap-1 Maneuver	246	756	1040	-	-	-
Stage 1	610	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	213	756	1040	-	-	-
Mov Cap-2 Maneuver	213	-	-	-	-	-
Stage 1	610	-	-	-	-	-
Stage 2	481	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.4	2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1040	-	213	756	-	-
HCM Lane V/C Ratio	0.136	-	0.413	0.152	-	-
HCM Control Delay (s)	9	-	33.3	10.6	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1.9	0.5	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	938	96	26	984	8	109	1	23	18	3	85
Future Volume (veh/h)	33	938	96	26	984	8	109	1	23	18	3	85
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1866	1900	1900	1863	1900	1900	1780	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	987	101	27	1036	8	115	1	24	19	53	56
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	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, %	0	2	2	0	2	2	0	0	0	0	0	0
Cap, veh/h	69	1499	153	56	1704	13	169	6	137	39	109	128
Arrive On Green	0.04	0.46	0.46	0.03	0.47	0.47	0.09	0.09	0.09	0.08	0.08	0.08
Sat Flow, veh/h	1810	3248	332	1810	3600	28	1810	61	1462	495	1380	1615
Grp Volume(v), veh/h	35	539	549	27	509	535	115	0	25	72	0	56
Grp Sat Flow(s),veh/h/ln	1810	1773	1808	1810	1770	1858	1810	0	1522	1875	0	1615
Q Serve(g_s), s	1.0	12.6	12.6	0.8	11.4	11.4	3.3	0.0	0.8	2.0	0.0	1.8
Cycle Q Clear(g_c), s	1.0	12.6	12.6	0.8	11.4	11.4	3.3	0.0	0.8	2.0	0.0	1.8
Prop In Lane	1.00		0.18	1.00		0.01	1.00		0.96	0.26		1.00
Lane Grp Cap(c), veh/h	69	818	834	56	837	879	169	0	142	149	0	128
V/C Ratio(X)	0.51	0.66	0.66	0.48	0.61	0.61	0.68	0.00	0.18	0.48	0.00	0.44
Avail Cap(c_a), veh/h	168	924	942	168	922	968	1010	0	850	174	0	150
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	25.4	11.2	11.2	25.6	10.5	10.5	23.6	0.0	22.5	23.7	0.0	23.6
Incr Delay (d2), s/veh	5.8	3.4	3.3	6.3	2.7	2.5	4.7	0.0	0.6	2.4	0.0	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	0.6	6.9	7.0	0.5	6.1	6.4	1.9	0.0	0.4	1.1	0.0	0.9
LnGrp Delay(d),s/veh	31.1	14.6	14.5	32.0	13.1	13.0	28.3	0.0	23.0	26.1	0.0	25.9
LnGrp LOS	C	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		1123			1071			140			128	
Approach Delay, s/veh		15.1			13.5			27.4			26.0	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.7	29.8		9.0	6.0	30.4		8.3
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 28		30.0	5.0	28.0		5.0
Max Q Clear Time (g_c+I1), s	2.8	14.6		5.3	3.0	13.4		4.0
Green Ext Time (p_c), s	1.9	10.2		0.4	0.0	10.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	499	229	1380	528	221	1494
Future Volume (veh/h)	499	229	1380	528	221	1494
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	542	249	1500	574	240	1624
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	731	336	2024	967	290	2254
Arrive On Green	0.21	0.21	0.40	0.40	0.16	0.64
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	542	249	1500	574	240	1624
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	8.8	8.8	15.0	13.2	7.8	18.4
Cycle Q Clear(g_c), s	8.8	8.8	15.0	13.2	7.8	18.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	731	336	2024	967	290	2254
V/C Ratio(X)	0.74	0.74	0.74	0.59	0.83	0.72
Avail Cap(c_a), veh/h	1038	478	2024	967	342	2254
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	22.0	22.0	15.3	7.1	24.2	7.3
Incr Delay (d2), s/veh	1.7	3.7	2.5	2.7	13.6	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	4.1	7.4	9.5	4.9	9.4
LnGrp Delay(d),s/veh	23.7	25.7	17.8	9.8	37.7	9.3
LnGrp LOS	C	C	B	A	D	A
Approach Vol, veh/h	791		2074			1864
Approach Delay, s/veh	24.3		15.6			13.0
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.2	28.3				42.5		17.2
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	11.5	22.0				38.0		18.0
Max Q Clear Time (g_c+I1), s	9.8	17.0				20.4		10.8
Green Ext Time (p_c), s	0.1	4.9				16.9		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	269	15	0	287	0	6
Future Vol, veh/h	269	15	0	287	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	292	16	0	312	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	300
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	740
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	740
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	740	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-
HCM Control Delay (s)	9.9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Intersection Delay, s/veh	54
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	195	335	354	174	4	356	3	159	3	2	11
Future Vol, veh/h	6	195	335	354	174	4	356	3	159	3	2	11
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	17	6	5	2	6	0	4	0	6	0	0	0
Mvmt Flow	7	241	414	437	215	5	440	4	196	4	2	14
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	33.9	60.3	69.7	13.6
HCM LOS	D	F	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	99%	0%	3%	0%	100%	0%	19%
Vol Thru, %	1%	0%	97%	0%	0%	98%	12%
Vol Right, %	0%	100%	0%	100%	0%	2%	69%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	359	159	201	335	354	178	16
LT Vol	356	0	6	0	354	0	3
Through Vol	3	0	195	0	0	174	2
RT Vol	0	159	0	335	0	4	11
Lane Flow Rate	443	196	248	414	437	220	20
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	1.069	0.402	0.573	0.851	1.025	0.488	0.053
Departure Headway (Hd)	8.797	7.494	8.675	7.739	8.819	8.355	10.012
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	417	483	419	471	415	435	360
Service Time	6.497	5.194	6.375	5.439	6.519	6.055	8.012
HCM Lane V/C Ratio	1.062	0.406	0.592	0.879	1.053	0.506	0.056
HCM Control Delay	93.9	15.1	22.4	40.8	81.2	18.8	13.6
HCM Lane LOS	F	C	C	E	F	C	B
HCM 95th-tile Q	14.7	1.9	3.5	8.6	13.2	2.6	0.2

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	66	748	20	44	670
Future Vol, veh/h	25	66	748	20	44	670
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	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	3	0	12	4
Mvmt Flow	26	69	779	21	46	698

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1580	790	0	0	800	0
Stage 1	790	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.22	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.308	-
Pot Cap-1 Maneuver	121	393	-	-	781	-
Stage 1	451	-	-	-	-	-
Stage 2	451	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	114	393	-	-	781	-
Mov Cap-2 Maneuver	114	-	-	-	-	-
Stage 1	451	-	-	-	-	-
Stage 2	424	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30.3	0	0.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	235	781	-
HCM Lane V/C Ratio	-	-	0.403	0.059	-
HCM Control Delay (s)	-	-	30.3	9.9	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	1.8	0.2	-

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	3	3	73	1	2	6	768	54	6	714	2
Future Vol, veh/h	1	3	3	73	1	2	6	768	54	6	714	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	-	-	30	-	-	30	105	-	210	105	-	-
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, %	0	0	0	0	0	0	0	4	8	0	4	50
Mvmt Flow	1	3	3	79	1	2	7	835	59	7	776	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1638	1638	777	1640	1639	835	778	0	0	835	0	0
Stage 1	790	790	-	848	848	-	-	-	-	-	-	-
Stage 2	848	848	-	792	791	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	81	102	400	81	101	371	848	-	-	807	-	-
Stage 1	386	404	-	359	380	-	-	-	-	-	-	-
Stage 2	359	380	-	385	404	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	79	100	400	~ 77	99	371	848	-	-	807	-	-
Mov Cap-2 Maneuver	79	100	-	~ 77	99	-	-	-	-	-	-	-
Stage 1	383	400	-	356	377	-	-	-	-	-	-	-
Stage 2	353	377	-	375	400	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	31.8	205.3	0.1	0.1
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	848	-	-	94	400	77	371	807	-	-
HCM Lane V/C Ratio	0.008	-	-	0.046	0.008	1.045	0.006	0.008	-	-
HCM Control Delay (s)	9.3	-	-	45.1	14.1	210.4	14.8	9.5	-	-
HCM Lane LOS	A	-	-	E	B	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	5.7	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	27.5
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	87	29	130	69	11	4	106	181	48	7	181	57
Future Vol, veh/h	87	29	130	69	11	4	106	181	48	7	181	57
Peak Hour Factor	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Heavy Vehicles, %	3	0	1	2	0	0	0	2	5	0	3	4
Mvmt Flow	143	48	213	113	18	7	174	297	79	11	297	93
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	2
HCM Control Delay	19.3	19.1	36.3	26.6
HCM LOS	C	C	E	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	75%	0%	82%	100%	0%	0%
Vol Thru, %	0%	79%	25%	0%	13%	0%	100%	0%
Vol Right, %	0%	21%	0%	100%	5%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	229	116	130	84	7	181	57
LT Vol	106	0	87	0	69	7	0	0
Through Vol	0	181	29	0	11	0	181	0
RT Vol	0	48	0	130	4	0	0	57
Lane Flow Rate	174	375	190	213	138	11	297	93
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.43	0.862	0.489	0.479	0.386	0.029	0.724	0.21
Departure Headway (Hd)	8.906	8.27	9.255	8.095	10.092	9.25	8.786	8.079
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	405	439	390	445	357	387	412	444
Service Time	6.66	6.024	7.013	5.853	7.861	7.007	6.542	5.835
HCM Lane V/C Ratio	0.43	0.854	0.487	0.479	0.387	0.028	0.721	0.209
HCM Control Delay	18.2	44.7	20.6	18.1	19.1	12.3	31.5	13
HCM Lane LOS	C	E	C	C	C	B	D	B
HCM 95th-tile Q	2.1	8.7	2.6	2.5	1.8	0.1	5.6	0.8

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	11	23	350	350	2
Future Vol, veh/h	1	11	23	350	350	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	3	2	0
Mvmt Flow	1	12	26	389	389	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	830	390	391	0	-	0
Stage 1	390	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	343	663	1157	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	335	663	1157	-	-	-
Mov Cap-2 Maneuver	335	-	-	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	638	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1157	-	613	-	-
HCM Lane V/C Ratio	0.022	-	0.022	-	-
HCM Control Delay (s)	8.2	-	11	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	78	125	248	66	124	237
Future Vol, veh/h	78	125	248	66	124	237
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	15	2	3
Mvmt Flow	85	136	270	72	135	258

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	832	305	0	0	341	0
Stage 1	305	-	-	-	-	-
Stage 2	527	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	342	740	-	-	1218	-
Stage 1	752	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	304	740	-	-	1218	-
Mov Cap-2 Maneuver	304	-	-	-	-	-
Stage 1	752	-	-	-	-	-
Stage 2	530	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.9	0	2.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	477	1218	-
HCM Lane V/C Ratio	-	-	0.463	0.111	-
HCM Control Delay (s)	-	-	18.9	8.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.4	0.4	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	346	3	0	313
Future Vol, veh/h	1	1	346	3	0	313
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	48	48	48	48	48	48
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	2	2	721	6	0	652

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1376	724	0	0	727	0
Stage 1	724	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	162	429	-	-	886	-
Stage 1	484	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	162	429	-	-	886	-
Mov Cap-2 Maneuver	162	-	-	-	-	-
Stage 1	484	-	-	-	-	-
Stage 2	522	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	162	429	886	-
HCM Lane V/C Ratio	-	-	0.013	0.005	-	-
HCM Control Delay (s)	-	-	27.5	13.4	0	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	1	29	0	13	2	336	35	13	301	0
Future Vol, veh/h	0	0	1	29	0	13	2	336	35	13	301	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	51	51	51	51	51	51	51	51	51	51	51	51
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	2	0
Mvmt Flow	0	0	2	57	0	25	4	659	69	25	590	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1355	1376	590	1343	1342	693	590	0	0	727	0	0
Stage 1	641	641	-	701	701	-	-	-	-	-	-	-
Stage 2	714	735	-	642	641	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	128	146	511	130	154	447	995	-	-	886	-	-
Stage 1	466	473	-	433	444	-	-	-	-	-	-	-
Stage 2	425	428	-	466	473	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	118	141	511	126	149	447	995	-	-	886	-	-
Mov Cap-2 Maneuver	118	141	-	126	149	-	-	-	-	-	-	-
Stage 1	464	460	-	431	442	-	-	-	-	-	-	-
Stage 2	399	426	-	451	460	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	48.2	0	0.4
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	995	-	-	511	162	886	-	-
HCM Lane V/C Ratio	0.004	-	-	0.004	0.508	0.029	-	-
HCM Control Delay (s)	8.6	-	-	12.1	48.2	9.2	-	-
HCM Lane LOS	A	-	-	B	E	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	2.5	0.1	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	17	356	69	7	324
Future Vol, veh/h	68	17	356	69	7	324
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	131	33	685	133	13	623

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1401	751	0	0	817	0
Stage 1	751	-	-	-	-	-
Stage 2	650	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	156	414	-	-	820	-
Stage 1	470	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	154	414	-	-	820	-
Mov Cap-2 Maneuver	294	-	-	-	-	-
Stage 1	470	-	-	-	-	-
Stage 2	515	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.2	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	294	414	820	-
HCM Lane V/C Ratio	-	-	0.445	0.079	0.016	-
HCM Control Delay (s)	-	-	26.7	14.4	9.5	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	2.2	0.3	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	44	398	387	1
Future Vol, veh/h	0	33	44	398	387	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	12	10	1	1	0
Mvmt Flow	0	60	80	724	704	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1589	705	705	0	-	0
Stage 1	705	-	-	-	-	-
Stage 2	884	-	-	-	-	-
Critical Hdwy	6.4	6.32	4.2	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.408	2.29	-	-	-
Pot Cap-1 Maneuver	120	420	857	-	-	-
Stage 1	494	-	-	-	-	-
Stage 2	407	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	109	420	857	-	-	-
Mov Cap-2 Maneuver	241	-	-	-	-	-
Stage 1	494	-	-	-	-	-
Stage 2	369	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	857	-	420	-	-
HCM Lane V/C Ratio	0.093	-	0.143	-	-
HCM Control Delay (s)	9.6	-	15	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.5	-	-

Intersection	
Int Delay, s/veh	12.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	184	9	2	19	144	728	5	5	838	8
Future Vol, veh/h	0	0	184	9	2	19	144	728	5	5	838	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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	50	4	22	0	5	1	2	0	0	2	13
Mvmt Flow	0	0	252	12	3	26	197	997	7	7	1148	11

Major/Minor	Minor2		Minor1			Major1				Major2		
Conflicting Flow All	-	-	1148	2557	2557	1001	1148	0	0	1004	0	0
Stage 1	-	-	-	1395	1395	-	-	-	-	-	-	-
Stage 2	-	-	-	1162	1162	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	7.32	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	3.698	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	~ 240	15	27	291	612	-	-	698	-	-
Stage 1	0	0	-	158	210	-	-	-	-	-	-	-
Stage 2	0	0	-	217	272	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	~ 240	-	18	291	612	-	-	698	-	-
Mov Cap-2 Maneuver	-	-	-	-	18	-	-	-	-	-	-	-
Stage 1	-	-	-	107	142	-	-	-	-	-	-	-
Stage 2	-	-	-	-	269	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	116.3		2.2	0.1
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	612	-	-	240	-	698	-	-
HCM Lane V/C Ratio	0.322	-	-	1.05	-	0.01	-	-
HCM Control Delay (s)	13.7	-	-	116.3	-	10.2	-	-
HCM Lane LOS	B	-	-	F	-	B	-	-
HCM 95th %tile Q(veh)	1.4	-	-	10.5	-	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	275	5	17	281	11	11
Future Vol, veh/h	275	5	17	281	11	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	299	5	18	305	12	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	304	0	644	302
Stage 1	-	-	-	-	302	-
Stage 2	-	-	-	-	342	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1257	-	437	738
Stage 1	-	-	-	-	750	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1257	-	431	738
Mov Cap-2 Maneuver	-	-	-	-	529	-
Stage 1	-	-	-	-	750	-
Stage 2	-	-	-	-	709	-

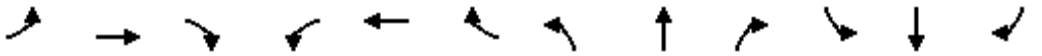
Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	616	-	-	1257	-
HCM Lane V/C Ratio	0.039	-	-	0.015	-
HCM Control Delay (s)	11.1	-	-	7.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Project Driveway Option B

HCM Signalized Intersection Capacity Analysis
7: Sierra College Blvd & Brace Rd

01/21/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	104	128	0	95	0	737	100	141	1173	1
Future Volume (vph)	0	0	104	128	0	95	0	737	100	141	1173	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	5.5
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.95	1.00
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	0.85
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)			1452	1770		1495		4893	1583	1736	3539	1615
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)			1452	1770		1495		4893	1583	1736	3539	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	111	136	0	101	0	784	106	150	1248	1
RTOR Reduction (vph)	0	0	102	0	0	76	0	0	54	0	0	0
Lane Group Flow (vph)	0	0	9	136	0	25	0	784	52	150	1248	1
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	Perm
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			2
Actuated Green, G (s)			4.5	5.1		14.1		23.0	28.1	6.3	33.3	33.3
Effective Green, g (s)			4.5	5.1		14.1		23.0	28.1	6.3	33.3	33.3
Actuated g/C Ratio			0.08	0.09		0.25		0.40	0.49	0.11	0.59	0.59
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	5.5
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	4.0
Lane Grp Cap (vph)			114	158		370		1977	781	192	2071	945
v/s Ratio Prot				c0.08				0.16	0.01	c0.09	c0.35	
v/s Ratio Perm			0.01			c0.02			0.03			0.00
v/c Ratio			0.08	0.86		0.07		0.40	0.07	0.78	0.60	0.00
Uniform Delay, d1			24.3	25.5		16.4		12.0	7.5	24.6	7.6	4.9
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2			0.3	35.0		0.1		0.2	0.0	17.1	0.6	0.0
Delay (s)			24.6	60.6		16.5		12.2	7.6	41.7	8.1	4.9
Level of Service			C	E		B		B	A	D	A	A
Approach Delay (s)		24.6			41.8			11.7			11.7	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	56.9	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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	24	241	159	42	28	265	804	123	89	1301	95
Future Volume (veh/h)	108	24	241	159	42	28	265	804	123	89	1301	95
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1789	1900	1743	1845	1863
Adj Flow Rate, veh/h	112	25	251	166	44	29	276	838	128	93	1355	99
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	7	9	3	2
Cap, veh/h	136	224	314	191	280	244	303	2307	350	116	1512	674
Arrive On Green	0.08	0.13	0.13	0.12	0.16	0.16	0.18	0.54	0.54	0.07	0.43	0.43
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	4280	650	1660	3505	1562
Grp Volume(v), veh/h	112	25	251	166	44	29	276	636	330	93	1355	99
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1628	1674	1660	1752	1562
Q Serve(g_s), s	7.8	1.5	11.5	11.5	2.5	1.9	18.4	13.0	13.1	6.4	41.5	4.5
Cycle Q Clear(g_c), s	7.8	1.5	11.5	11.5	2.5	1.9	18.4	13.0	13.1	6.4	41.5	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	136	224	314	191	280	244	303	1755	902	116	1512	674
V/C Ratio(X)	0.82	0.11	0.80	0.87	0.16	0.12	0.91	0.36	0.37	0.80	0.90	0.15
Avail Cap(c_a), veh/h	183	452	635	199	464	406	324	1755	902	208	1575	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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	44.6	49.0	50.3	41.7	41.5	46.7	15.3	15.3	53.1	30.5	20.0
Incr Delay (d2), s/veh	19.5	0.2	4.7	30.5	0.3	0.2	27.8	0.3	0.5	12.2	7.5	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	4.3	0.7	4.1	6.8	1.2	0.8	11.0	5.9	6.2	3.3	21.5	2.0
LnGrp Delay(d),s/veh	71.7	44.8	53.7	80.8	42.0	41.7	74.5	15.5	15.8	65.3	38.0	20.2
LnGrp LOS	E	D	D	F	D	D	E	B	B	E	D	C
Approach Vol, veh/h		388			239			1242			1547	
Approach Delay, s/veh		58.3			68.9			28.7			38.5	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	67.4	17.4	18.8	24.5	54.9	13.6	22.7
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	14.5	59.5	14.0	30.0	22.0	52.0	12.9	31.1
Max Q Clear Time (g_c+I1), s	8.4	15.1	13.5	13.5	20.4	43.5	9.8	4.5
Green Ext Time (p_c), s	0.1	40.0	0.0	1.3	0.1	6.5	0.1	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	39.3
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	16	837	1400	4
Future Vol, veh/h	0	0	16	837	1400	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	17	881	1474	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	739	1478	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	364	462	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	364	462	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	462	-	-	-	-
HCM Lane V/C Ratio	0.036	-	-	-	-
HCM Control Delay (s)	13.1	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	142	58	795	144	56	1344
Future Volume (veh/h)	142	58	795	144	56	1344
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	154	63	864	157	61	1461
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	346	159	2806	1033	104	2501
Arrive On Green	0.10	0.10	0.55	0.55	0.06	0.71
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	154	63	864	157	61	1461
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	2.0	1.7	4.3	1.8	1.6	9.6
Cycle Q Clear(g_c), s	2.0	1.7	4.3	1.8	1.6	9.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	346	159	2806	1033	104	2501
V/C Ratio(X)	0.44	0.40	0.31	0.15	0.59	0.58
Avail Cap(c_a), veh/h	1327	610	2806	1033	239	2501
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.8	19.7	5.7	3.1	21.4	3.4
Incr Delay (d2), s/veh	0.9	1.6	0.3	0.3	5.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.8	2.1	1.1	0.9	4.8
LnGrp Delay(d),s/veh	20.7	21.3	5.9	3.4	26.6	4.4
LnGrp LOS	C	C	A	A	C	A
Approach Vol, veh/h	217		1021			1522
Approach Delay, s/veh	20.8		5.6			5.3
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.2	30.3				37.5		9.2
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	6.3	22.2				33.0		18.0
Max Q Clear Time (g_c+I1), s	3.6	6.3				11.6		4.0
Green Ext Time (p_c), s	0.0	13.4				17.2		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

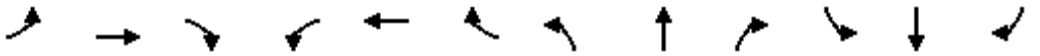
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	241	0	0	223	0	0
Future Vol, veh/h	241	0	0	223	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	-	-	-	-	-	-
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	262	0	0	242	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	262
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	777
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	777
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

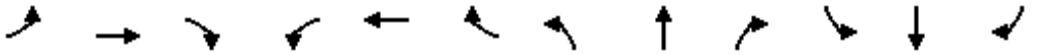
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	142	205	0	121	0	1641	191	115	1325	0
Future Volume (vph)	0	0	142	205	0	121	0	1641	191	115	1325	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1597	1770		1553		5085	1615	1787	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1597	1770		1553		5085	1615	1787	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	148	214	0	126	0	1709	199	120	1380	0
RTOR Reduction (vph)	0	0	122	0	0	99	0	0	78	0	0	0
Lane Group Flow (vph)	0	0	26	214	0	27	0	1709	121	120	1380	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	Perm
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			2
Actuated Green, G (s)			7.4	5.0		16.9		43.6	48.6	6.0	53.6	
Effective Green, g (s)			7.4	5.0		16.9		43.6	48.6	6.0	53.6	
Actuated g/C Ratio			0.09	0.06		0.21		0.55	0.61	0.08	0.67	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			147	110		328		2771	981	134	2371	
v/s Ratio Prot				c0.12				c0.34	0.01	c0.07	0.39	
v/s Ratio Perm			c0.02			0.02			0.07			
v/c Ratio			0.18	1.95		0.08		0.62	0.12	0.90	0.58	
Uniform Delay, d1			33.5	37.5		25.3		12.5	6.7	36.7	7.1	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.6	456.8		0.1		0.5	0.1	46.4	0.4	
Delay (s)			34.1	494.3		25.5		12.9	6.7	83.1	7.6	
Level of Service			C	F		C		B	A	F	A	
Approach Delay (s)		34.1			320.6			12.3			13.6	
Approach LOS		C			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	40.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	28	368	137	26	33	358	1822	98	61	1722	124
Future Volume (veh/h)	195	28	368	137	26	33	358	1822	98	61	1722	124
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1900	1863	1863	1881
Adj Flow Rate, veh/h	207	30	391	146	28	35	381	1938	104	65	1832	132
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	1
Cap, veh/h	171	300	449	166	300	250	301	2821	151	83	1569	699
Arrive On Green	0.09	0.16	0.16	0.09	0.16	0.16	0.17	0.57	0.57	0.05	0.44	0.44
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	4942	264	1774	3539	1577
Grp Volume(v), veh/h	207	30	391	146	28	35	381	1328	714	65	1832	132
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1695	1816	1774	1770	1577
Q Serve(g_s), s	13.0	1.9	19.2	11.3	1.8	2.7	24.0	38.0	38.3	5.0	61.0	7.0
Cycle Q Clear(g_c), s	13.0	1.9	19.2	11.3	1.8	2.7	24.0	38.0	38.3	5.0	61.0	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	171	300	449	166	300	250	301	1935	1037	83	1569	699
V/C Ratio(X)	1.21	0.10	0.87	0.88	0.09	0.14	1.27	0.69	0.69	0.78	1.17	0.19
Avail Cap(c_a), veh/h	171	398	596	166	398	332	301	1935	1037	153	1569	699
HCM Platoon Ratio	1.00	1.00	1.00	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	62.3	48.9	56.1	61.5	48.8	49.2	56.8	20.8	20.9	64.9	38.3	23.3
Incr Delay (d2), s/veh	136.8	0.1	10.6	37.9	0.1	0.3	144.1	1.3	2.5	14.6	82.7	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	13.0	1.0	7.9	7.2	0.9	1.2	23.4	18.1	19.8	2.8	47.7	3.1
LnGrp Delay(d),s/veh	199.1	49.0	66.6	99.4	48.9	49.4	200.9	22.2	23.4	79.5	121.0	23.5
LnGrp LOS	F	D	E	F	D	D	F	C	C	E	F	C
Approach Vol, veh/h		628			209			2423			2029	
Approach Delay, s/veh		109.5			84.3			50.6			113.4	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	83.6	17.0	26.6	28.0	66.0	17.0	26.6
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	11.9	73.1	13.0	30.0	24.0	61.0	13.0	30.0
Max Q Clear Time (g_c+I1), s	7.0	40.3	13.3	21.2	26.0	63.0	15.0	4.7
Green Ext Time (p_c), s	0.0	32.7	0.0	1.4	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	83.0
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	1832	1671	2
Future Vol, veh/h	0	20	5	1832	1671	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	1889	1723	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	862	1725	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.35	2.2	-	-	-
Pot Cap-1 Maneuver	0	292	371	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	292	371	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	371	-	292	-	-
HCM Lane V/C Ratio	0.014	-	0.071	-	-
HCM Control Delay (s)	14.8	-	18.3	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	370	167	1676	356	148	1543
Future Volume (veh/h)	370	167	1676	356	148	1543
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	402	182	1822	387	161	1677
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	574	264	2559	1061	202	2439
Arrive On Green	0.17	0.17	0.50	0.50	0.11	0.69
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	402	182	1822	387	161	1677
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	6.9	6.8	17.3	6.7	5.5	17.5
Cycle Q Clear(g_c), s	6.9	6.8	17.3	6.7	5.5	17.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	574	264	2559	1061	202	2439
V/C Ratio(X)	0.70	0.69	0.71	0.36	0.80	0.69
Avail Cap(c_a), veh/h	993	457	2559	1061	242	2439
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	24.5	24.5	12.0	4.5	27.0	5.7
Incr Delay (d2), s/veh	1.6	3.2	1.7	1.0	14.5	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.2	8.3	4.6	3.5	8.9
LnGrp Delay(d),s/veh	26.1	27.7	13.7	5.5	41.5	7.3
LnGrp LOS	C	C	B	A	D	A
Approach Vol, veh/h	584		2209			1838
Approach Delay, s/veh	26.6		12.3			10.3
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	11.6	35.9				47.5		14.9
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	8.5	30.0				43.0		18.0
Max Q Clear Time (g_c+I1), s	7.5	19.3				19.5		8.9
Green Ext Time (p_c), s	0.0	10.5				22.6		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	299	7	0	326	0	3
Future Vol, veh/h	299	7	0	326	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	-	-	-	-	-	-
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	325	8	0	354	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	329
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	712
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	712
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	712	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-
HCM Control Delay (s)	10.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

HCM Signalized Intersection Capacity Analysis
7: Sierra College Blvd & Brace Rd

01/21/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	69	227	0	66	0	1430	188	101	1431	0
Future Volume (vph)	0	0	69	227	0	66	0	1430	188	101	1431	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.95	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1588	1805		1455		5036	1599	1752	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1588	1805		1455		5036	1599	1752	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	72	236	0	69	0	1490	196	105	1491	0
RTOR Reduction (vph)	0	0	68	0	0	55	0	0	81	0	0	0
Lane Group Flow (vph)	0	0	4	236	0	14	0	1490	115	105	1491	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	Perm
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			2
Actuated Green, G (s)			3.0	5.1		12.6		30.6	35.7	4.1	38.7	
Effective Green, g (s)			3.0	5.1		12.6		30.6	35.7	4.1	38.7	
Actuated g/C Ratio			0.05	0.08		0.21		0.50	0.59	0.07	0.64	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			78	151		301		2534	938	118	2252	
v/s Ratio Prot				c0.13				0.30	0.01	0.06	c0.42	
v/s Ratio Perm			0.00			c0.01			0.06			
v/c Ratio			0.05	1.56		0.05		0.59	0.12	0.89	0.66	
Uniform Delay, d1			27.5	27.8		19.3		10.7	5.6	28.1	6.9	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.2	282.9		0.1		0.4	0.1	48.7	0.8	
Delay (s)			27.8	310.8		19.4		11.1	5.6	76.8	7.8	
Level of Service			C	F		B		B	A	E	A	
Approach Delay (s)		27.8			244.9			10.4			12.3	
Approach LOS		C			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	60.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	27	298	174	28	23	301	1619	157	64	1733	139
Future Volume (veh/h)	155	27	298	174	28	23	301	1619	157	64	1733	139
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1864	1900	1845	1863	1881
Adj Flow Rate, veh/h	161	28	310	181	29	24	314	1686	164	67	1805	145
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	2	3	2	1
Cap, veh/h	170	244	373	172	235	216	288	2791	271	85	1679	748
Arrive On Green	0.10	0.13	0.13	0.10	0.13	0.13	0.17	0.59	0.59	0.05	0.47	0.47
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	4718	458	1757	3539	1577
Grp Volume(v), veh/h	161	28	310	181	29	24	314	1211	639	67	1805	145
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1697	1783	1757	1770	1577
Q Serve(g_s), s	12.2	1.8	14.4	13.0	1.9	1.7	22.0	30.1	30.3	5.0	63.0	7.1
Cycle Q Clear(g_c), s	12.2	1.8	14.4	13.0	1.9	1.7	22.0	30.1	30.3	5.0	63.0	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	170	244	373	172	235	216	288	2007	1055	85	1679	748
V/C Ratio(X)	0.94	0.11	0.83	1.05	0.12	0.11	1.09	0.60	0.61	0.78	1.07	0.19
Avail Cap(c_a), veh/h	170	413	630	172	398	365	288	2007	1055	161	1679	748
HCM Platoon Ratio	1.00	1.00	1.00	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	59.5	50.6	56.0	59.9	50.6	50.6	55.4	17.2	17.2	62.5	34.9	20.2
Incr Delay (d2), s/veh	52.9	0.2	4.8	83.1	0.2	0.2	78.9	0.8	1.5	14.4	45.1	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	8.4	0.9	5.8	10.2	0.9	0.8	16.8	14.2	15.3	2.8	41.1	3.1
LnGrp Delay(d),s/veh	112.4	50.8	60.9	143.0	50.9	50.8	134.3	18.0	18.7	76.8	80.0	20.5
LnGrp LOS	F	D	E	F	D	D	F	B	B	E	F	C
Approach Vol, veh/h		499			234			2164			2017	
Approach Delay, s/veh		76.9			122.1			35.1			75.6	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	83.5	17.0	21.8	26.0	68.0	17.0	21.8
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	12.2	72.8	13.0	30.0	22.0	63.0	13.0	30.0
Max Q Clear Time (g_c+I1), s	7.0	32.3	15.0	16.4	24.0	65.0	14.2	3.9
Green Ext Time (p_c), s	0.0	40.3	0.0	1.4	0.0	0.0	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	60.1
HCM 2010 LOS	E

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	7	1618	1727	0
Future Vol, veh/h	0	0	7	1618	1727	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	7	1668	1780	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	890	1780	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	290	354	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	290	354	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	354	-	-	-	-
HCM Lane V/C Ratio	0.02	-	-	-	-
HCM Control Delay (s)	15.4	-	0	-	-
HCM Lane LOS	C	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	439	241	1380	465	233	1494
Future Volume (veh/h)	439	241	1380	465	233	1494
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	477	262	1500	505	253	1624
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	722	332	2104	988	304	2312
Arrive On Green	0.21	0.21	0.41	0.41	0.17	0.65
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	477	262	1500	505	253	1624
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	8.4	10.3	16.1	11.6	9.1	19.3
Cycle Q Clear(g_c), s	8.4	10.3	16.1	11.6	9.1	19.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	722	332	2104	988	304	2312
V/C Ratio(X)	0.66	0.79	0.71	0.51	0.83	0.70
Avail Cap(c_a), veh/h	941	433	2104	988	418	2312
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.8	24.6	16.0	6.8	26.4	7.3
Incr Delay (d2), s/veh	1.1	7.1	2.1	1.9	10.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	5.2	7.9	8.4	5.3	9.8
LnGrp Delay(d),s/veh	24.9	31.8	18.1	8.7	36.4	9.1
LnGrp LOS	C	C	B	A	D	A
Approach Vol, veh/h	739		2005			1877
Approach Delay, s/veh	27.4		15.8			12.8
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.8	31.7				47.5		18.3
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	15.5	23.0				43.0		18.0
Max Q Clear Time (g_c+I1), s	11.1	18.1				21.3		12.3
Green Ext Time (p_c), s	0.3	4.8				20.5		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	16.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	275	15	0	293	0	6
Future Vol, veh/h	275	15	0	293	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	299	16	0	318	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	307
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	733
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	733
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10
HCM LOS			B

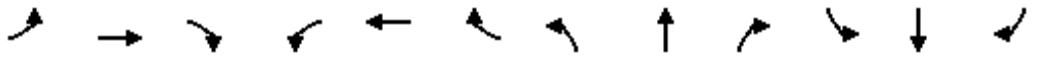
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	733	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-
HCM Control Delay (s)	10	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Project Driveway Option C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	104	126	0	97	0	735	98	141	1173	1
Future Volume (vph)	0	0	104	126	0	97	0	735	98	141	1173	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	5.5
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.95	1.00
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	0.85
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)			1448	1770		1495		4893	1583	1736	3539	1615
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)			1448	1770		1495		4893	1583	1736	3539	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	111	134	0	103	0	782	104	150	1248	1
RTOR Reduction (vph)	0	0	104	0	0	77	0	0	54	0	0	0
Lane Group Flow (vph)	0	0	7	134	0	26	0	782	50	150	1248	1
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	Perm
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			2
Actuated Green, G (s)			3.0	4.9		12.4		19.0	23.9	5.1	28.1	28.1
Effective Green, g (s)			3.0	4.9		12.4		19.0	23.9	5.1	28.1	28.1
Actuated g/C Ratio			0.06	0.10		0.25		0.38	0.48	0.10	0.56	0.56
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	5.5
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	4.0
Lane Grp Cap (vph)			86	173		370		1859	756	177	1988	907
v/s Ratio Prot				c0.08				0.16	0.01	c0.09	c0.35	
v/s Ratio Perm			0.00			c0.02			0.02			0.00
v/c Ratio			0.08	0.77		0.07		0.42	0.07	0.85	0.63	0.00
Uniform Delay, d1			22.2	22.0		14.4		11.4	7.0	22.1	7.4	4.8
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2			0.4	19.2		0.1		0.2	0.0	28.4	0.7	0.0
Delay (s)			22.6	41.2		14.5		11.6	7.1	50.5	8.1	4.8
Level of Service			C	D		B		B	A	D	A	A
Approach Delay (s)		22.6			29.6			11.1			12.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	24	241	159	42	28	265	804	123	89	1301	95
Future Volume (veh/h)	108	24	241	159	42	28	265	804	123	89	1301	95
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1789	1900	1743	1845	1863
Adj Flow Rate, veh/h	112	25	251	166	44	29	276	838	128	93	1355	99
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	7	9	3	2
Cap, veh/h	136	224	314	191	280	244	303	2307	350	116	1512	674
Arrive On Green	0.08	0.13	0.13	0.12	0.16	0.16	0.18	0.54	0.54	0.07	0.43	0.43
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	4280	650	1660	3505	1562
Grp Volume(v), veh/h	112	25	251	166	44	29	276	636	330	93	1355	99
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1628	1674	1660	1752	1562
Q Serve(g_s), s	7.8	1.5	11.5	11.5	2.5	1.9	18.4	13.0	13.1	6.4	41.5	4.5
Cycle Q Clear(g_c), s	7.8	1.5	11.5	11.5	2.5	1.9	18.4	13.0	13.1	6.4	41.5	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	136	224	314	191	280	244	303	1755	902	116	1512	674
V/C Ratio(X)	0.82	0.11	0.80	0.87	0.16	0.12	0.91	0.36	0.37	0.80	0.90	0.15
Avail Cap(c_a), veh/h	183	452	635	199	464	406	324	1755	902	208	1575	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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	44.6	49.0	50.3	41.7	41.5	46.7	15.3	15.3	53.1	30.5	20.0
Incr Delay (d2), s/veh	19.5	0.2	4.7	30.5	0.3	0.2	27.8	0.3	0.5	12.2	7.5	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	4.3	0.7	4.1	6.8	1.2	0.8	11.0	5.9	6.2	3.3	21.5	2.0
LnGrp Delay(d),s/veh	71.7	44.8	53.7	80.8	42.0	41.7	74.5	15.5	15.8	65.3	38.0	20.2
LnGrp LOS	E	D	D	F	D	D	E	B	B	E	D	C
Approach Vol, veh/h		388			239			1242			1547	
Approach Delay, s/veh		58.3			68.9			28.7			38.5	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	67.4	17.4	18.8	24.5	54.9	13.6	22.7
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	14.5	59.5	14.0	30.0	22.0	52.0	12.9	31.1
Max Q Clear Time (g_c+I1), s	8.4	15.1	13.5	13.5	20.4	43.5	9.8	4.5
Green Ext Time (p_c), s	0.1	40.0	0.0	1.3	0.1	6.5	0.1	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	39.3
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	16	833	1398	4
Future Vol, veh/h	0	0	16	833	1398	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	17	877	1472	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	738	1476	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	365	462	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	365	462	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	462	-	-	-	-
HCM Lane V/C Ratio	0.036	-	-	-	-
HCM Control Delay (s)	13.1	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	142	54	795	144	54	1344
Future Volume (veh/h)	142	54	795	144	54	1344
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	154	59	864	157	59	1461
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	345	159	2813	1035	102	2502
Arrive On Green	0.10	0.10	0.55	0.55	0.06	0.71
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	154	59	864	157	59	1461
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	2.0	1.6	4.3	1.8	1.5	9.6
Cycle Q Clear(g_c), s	2.0	1.6	4.3	1.8	1.5	9.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	345	159	2813	1035	102	2502
V/C Ratio(X)	0.45	0.37	0.31	0.15	0.58	0.58
Avail Cap(c_a), veh/h	1327	610	2813	1035	239	2502
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.8	19.6	5.6	3.1	21.5	3.4
Incr Delay (d2), s/veh	0.9	1.4	0.3	0.3	5.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.8	2.0	1.1	0.9	4.8
LnGrp Delay(d),s/veh	20.7	21.1	5.9	3.4	26.6	4.4
LnGrp LOS	C	C	A	A	C	A
Approach Vol, veh/h	213		1021			1520
Approach Delay, s/veh	20.8		5.5			5.3
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.2	30.3				37.5		9.2
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	6.3	22.2				33.0		18.0
Max Q Clear Time (g_c+I1), s	3.5	6.3				11.6		4.0
Green Ext Time (p_c), s	0.0	13.4				17.2		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	239	0	0	223	0	0
Future Vol, veh/h	239	0	0	223	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	-	-	-	-	-	-
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	260	0	0	242	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	260
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	779
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	779
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	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	239	1	3	223	5	5
Future Vol, veh/h	239	1	3	223	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	260	1	3	242	5	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	261	0	509	260
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	249	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1303	-	524	779
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1303	-	523	779
Mov Cap-2 Maneuver	-	-	-	-	598	-
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	790	-

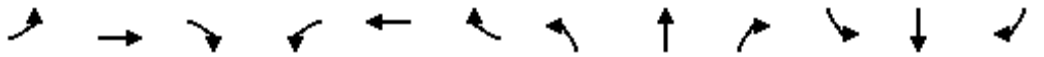
Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	677	-	-	1303	-
HCM Lane V/C Ratio	0.016	-	-	0.003	-
HCM Control Delay (s)	10.4	-	-	7.8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	142	199	0	124	0	1638	188	115	1325	0
Future Volume (vph)	0	0	142	199	0	124	0	1638	188	115	1325	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.95	
Frpb, ped/bikes			0.97	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1583	1770		1553		5085	1615	1787	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1583	1770		1553		5085	1615	1787	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	148	207	0	129	0	1706	196	120	1380	0
RTOR Reduction (vph)	0	0	142	0	0	93	0	0	84	0	0	0
Lane Group Flow (vph)	0	0	6	207	0	36	0	1706	112	120	1380	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	Perm
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			2
Actuated Green, G (s)			2.3	9.4		16.2		24.2	33.6	4.9	33.1	
Effective Green, g (s)			2.3	9.4		16.2		24.2	33.6	4.9	33.1	
Actuated g/C Ratio			0.04	0.16		0.28		0.41	0.57	0.08	0.56	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			61	282		427		2092	922	148	1992	
v/s Ratio Prot				c0.12				c0.34	0.02	0.07	c0.39	
v/s Ratio Perm			0.00			c0.02			0.05			
v/c Ratio			0.09	0.73		0.08		0.82	0.12	0.81	0.69	
Uniform Delay, d1			27.2	23.5		15.8		15.3	5.8	26.5	9.2	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.7	9.5		0.1		2.7	0.1	26.2	1.1	
Delay (s)			27.9	33.0		15.9		18.0	5.9	52.7	10.4	
Level of Service			C	C		B		B	A	D	B	
Approach Delay (s)		27.9			26.4			16.8			13.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	58.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	28	368	137	26	33	358	1822	98	61	1722	124
Future Volume (veh/h)	195	28	368	137	26	33	358	1822	98	61	1722	124
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1900	1863	1863	1881
Adj Flow Rate, veh/h	207	30	391	146	28	35	381	1938	104	65	1832	132
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	1
Cap, veh/h	171	300	449	166	300	250	301	2821	151	83	1569	699
Arrive On Green	0.09	0.16	0.16	0.09	0.16	0.16	0.17	0.57	0.57	0.05	0.44	0.44
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	4942	264	1774	3539	1577
Grp Volume(v), veh/h	207	30	391	146	28	35	381	1328	714	65	1832	132
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1695	1816	1774	1770	1577
Q Serve(g_s), s	13.0	1.9	19.2	11.3	1.8	2.7	24.0	38.0	38.3	5.0	61.0	7.0
Cycle Q Clear(g_c), s	13.0	1.9	19.2	11.3	1.8	2.7	24.0	38.0	38.3	5.0	61.0	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	171	300	449	166	300	250	301	1935	1037	83	1569	699
V/C Ratio(X)	1.21	0.10	0.87	0.88	0.09	0.14	1.27	0.69	0.69	0.78	1.17	0.19
Avail Cap(c_a), veh/h	171	398	596	166	398	332	301	1935	1037	153	1569	699
HCM Platoon Ratio	1.00	1.00	1.00	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	62.3	48.9	56.1	61.5	48.8	49.2	56.8	20.8	20.9	64.9	38.3	23.3
Incr Delay (d2), s/veh	136.8	0.1	10.6	37.9	0.1	0.3	144.1	1.3	2.5	14.6	82.7	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	13.0	1.0	7.9	7.2	0.9	1.2	23.4	18.1	19.8	2.8	47.7	3.1
LnGrp Delay(d),s/veh	199.1	49.0	66.6	99.4	48.9	49.4	200.9	22.2	23.4	79.5	121.0	23.5
LnGrp LOS	F	D	E	F	D	D	F	C	C	E	F	C
Approach Vol, veh/h		628			209			2423			2029	
Approach Delay, s/veh		109.5			84.3			50.6			113.4	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	83.6	17.0	26.6	28.0	66.0	17.0	26.6
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	11.9	73.1	13.0	30.0	24.0	61.0	13.0	30.0
Max Q Clear Time (g_c+I1), s	7.0	40.3	13.3	21.2	26.0	63.0	15.0	4.7
Green Ext Time (p_c), s	0.0	32.7	0.0	1.4	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	83.0
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	1826	1665	2
Future Vol, veh/h	0	20	5	1826	1665	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	1882	1716	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	859	1718	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.35	2.2	-	-	-
Pot Cap-1 Maneuver	0	294	374	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	294	374	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	374	-	294	-	-
HCM Lane V/C Ratio	0.014	-	0.07	-	-
HCM Control Delay (s)	14.8	-	18.2	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	370	161	1676	356	142	1543
Future Volume (veh/h)	370	161	1676	356	142	1543
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	402	175	1822	387	154	1677
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	593	273	2442	1033	195	2369
Arrive On Green	0.17	0.17	0.48	0.48	0.11	0.67
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	402	175	1822	387	154	1677
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	6.2	5.8	16.5	6.4	4.8	16.9
Cycle Q Clear(g_c), s	6.2	5.8	16.5	6.4	4.8	16.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	593	273	2442	1033	195	2369
V/C Ratio(X)	0.68	0.64	0.75	0.37	0.79	0.71
Avail Cap(c_a), veh/h	1091	502	2442	1033	234	2369
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	22.0	21.9	11.9	4.5	24.6	5.9
Incr Delay (d2), s/veh	1.4	2.5	2.1	1.0	14.1	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.7	8.1	4.4	3.1	8.5
LnGrp Delay(d),s/veh	23.4	24.4	14.1	5.6	38.7	7.7
LnGrp LOS	C	C	B	A	D	A
Approach Vol, veh/h	577		2209			1831
Approach Delay, s/veh	23.7		12.6			10.3
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.7	31.8				42.5		14.3
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	7.5	26.0				38.0		18.0
Max Q Clear Time (g_c+I1), s	6.8	18.5				18.9		8.2
Green Ext Time (p_c), s	0.0	7.4				18.5		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	296	7	0	323	0	3
Future Vol, veh/h	296	7	0	323	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	-	-	-	-	-	-
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	322	8	0	351	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	326
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	715
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	715
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	715	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-
HCM Control Delay (s)	10.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	299	5	11	320	6	6
Future Vol, veh/h	299	5	11	320	6	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	325	5	12	348	7	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	330	0	700	328
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	372	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1229	-	405	713
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	697	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1229	-	401	713
Mov Cap-2 Maneuver	-	-	-	-	506	-
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	690	-

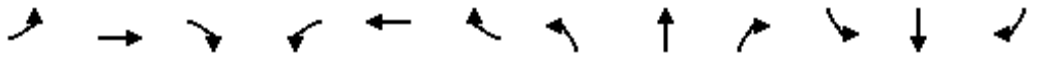
Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	592	-	-	1229	-
HCM Lane V/C Ratio	0.022	-	-	0.01	-
HCM Control Delay (s)	11.2	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	69	215	0	72	0	1424	182	101	1431	0
Future Volume (vph)	0	0	69	215	0	72	0	1424	182	101	1431	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.95	
Frpb, ped/bikes			0.97	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1577	1805		1455		5036	1599	1752	3539	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1577	1805		1455		5036	1599	1752	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	72	224	0	75	0	1483	190	105	1491	0
RTOR Reduction (vph)	0	0	70	0	0	55	0	0	79	0	0	0
Lane Group Flow (vph)	0	0	2	224	0	20	0	1483	111	105	1491	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	Perm
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			2
Actuated Green, G (s)			1.7	8.5		14.7		23.3	31.8	3.1	30.4	
Effective Green, g (s)			1.7	8.5		14.7		23.3	31.8	3.1	30.4	
Actuated g/C Ratio			0.03	0.16		0.27		0.43	0.58	0.06	0.56	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			49	280		391		2149	931	99	1970	
v/s Ratio Prot				c0.12				0.29	0.02	0.06	c0.42	
v/s Ratio Perm			0.00			c0.01			0.05			
v/c Ratio			0.05	0.80		0.05		0.69	0.12	1.06	0.76	
Uniform Delay, d1			25.7	22.2		14.8		12.7	5.1	25.8	9.3	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.4	15.0		0.1		1.0	0.1	107.8	1.8	
Delay (s)			26.1	37.2		14.9		13.8	5.2	133.5	11.1	
Level of Service			C	D		B		B	A	F	B	
Approach Delay (s)		26.1			31.6			12.8			19.1	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	54.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	27	298	174	28	23	301	1619	157	64	1733	139
Future Volume (veh/h)	155	27	298	174	28	23	301	1619	157	64	1733	139
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1864	1900	1845	1863	1881
Adj Flow Rate, veh/h	161	28	310	181	29	24	314	1686	164	67	1805	145
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	2	3	2	1
Cap, veh/h	170	244	373	172	235	216	288	2791	271	85	1679	748
Arrive On Green	0.10	0.13	0.13	0.10	0.13	0.13	0.17	0.59	0.59	0.05	0.47	0.47
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	4718	458	1757	3539	1577
Grp Volume(v), veh/h	161	28	310	181	29	24	314	1211	639	67	1805	145
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1697	1783	1757	1770	1577
Q Serve(g_s), s	12.2	1.8	14.4	13.0	1.9	1.7	22.0	30.1	30.3	5.0	63.0	7.1
Cycle Q Clear(g_c), s	12.2	1.8	14.4	13.0	1.9	1.7	22.0	30.1	30.3	5.0	63.0	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	170	244	373	172	235	216	288	2007	1055	85	1679	748
V/C Ratio(X)	0.94	0.11	0.83	1.05	0.12	0.11	1.09	0.60	0.61	0.78	1.07	0.19
Avail Cap(c_a), veh/h	170	413	630	172	398	365	288	2007	1055	161	1679	748
HCM Platoon Ratio	1.00	1.00	1.00	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	59.5	50.6	56.0	59.9	50.6	50.6	55.4	17.2	17.3	62.5	34.9	20.2
Incr Delay (d2), s/veh	52.9	0.2	4.8	83.1	0.2	0.2	78.9	0.8	1.5	14.4	45.1	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	8.4	0.9	5.8	10.2	0.9	0.8	16.8	14.2	15.3	2.8	41.1	3.1
LnGrp Delay(d),s/veh	112.4	50.8	60.9	143.0	50.9	50.8	134.3	18.0	18.7	76.8	80.0	20.5
LnGrp LOS	F	D	E	F	D	D	F	B	B	E	F	C
Approach Vol, veh/h		499			234			2164			2017	
Approach Delay, s/veh		76.9			122.1			35.1			75.6	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	83.5	17.0	21.8	26.0	68.0	17.0	21.8
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	12.2	72.8	13.0	30.0	22.0	63.0	13.0	30.0
Max Q Clear Time (g_c+I1), s	7.0	32.3	15.0	16.4	24.0	65.0	14.2	3.9
Green Ext Time (p_c), s	0.0	40.3	0.0	1.4	0.0	0.0	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	60.1
HCM 2010 LOS	E

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	7	1606	1715	0
Future Vol, veh/h	0	0	7	1606	1715	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	7	1656	1768	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	884	1768	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	292	357	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	292	357	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	357	-	-	-	-
HCM Lane V/C Ratio	0.02	-	-	-	-
HCM Control Delay (s)	15.3	-	0	-	-
HCM Lane LOS	C	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	439	229	1380	465	221	1494
Future Volume (veh/h)	439	229	1380	465	221	1494
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	477	249	1500	505	240	1624
Adj No. of Lanes	2	1	3	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	723	332	2033	965	290	2261
Arrive On Green	0.21	0.21	0.40	0.40	0.16	0.64
Sat Flow, veh/h	3442	1583	5253	1583	1774	3632
Grp Volume(v), veh/h	477	249	1500	505	240	1624
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1774	1770
Q Serve(g_s), s	7.6	8.8	14.9	10.9	7.8	18.2
Cycle Q Clear(g_c), s	7.6	8.8	14.9	10.9	7.8	18.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	723	332	2033	965	290	2261
V/C Ratio(X)	0.66	0.75	0.74	0.52	0.83	0.72
Avail Cap(c_a), veh/h	1041	479	2033	965	343	2261
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	21.6	22.0	15.2	6.7	24.1	7.2
Incr Delay (d2), s/veh	1.0	3.9	2.4	2.0	13.5	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	4.2	7.4	7.8	4.9	9.2
LnGrp Delay(d),s/veh	22.6	25.9	17.6	8.7	37.5	9.2
LnGrp LOS	C	C	B	A	D	A
Approach Vol, veh/h	726		2005			1864
Approach Delay, s/veh	23.7		15.4			12.8
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.2	28.3				42.5		17.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	11.5	22.0				38.0		18.0
Max Q Clear Time (g_c+I1), s	9.8	16.9				20.2		10.8
Green Ext Time (p_c), s	0.1	5.0				16.9		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	269	15	0	287	0	6
Future Vol, veh/h	269	15	0	287	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	292	16	0	312	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	300
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	740
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	740
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	740	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-
HCM Control Delay (s)	9.9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	275	5	17	281	11	11
Future Vol, veh/h	275	5	17	281	11	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	299	5	18	305	12	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	304	0	644	302
Stage 1	-	-	-	-	302	-
Stage 2	-	-	-	-	342	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1257	-	437	738
Stage 1	-	-	-	-	750	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1257	-	431	738
Mov Cap-2 Maneuver	-	-	-	-	529	-
Stage 1	-	-	-	-	750	-
Stage 2	-	-	-	-	709	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	616	-	-	1257	-
HCM Lane V/C Ratio	0.039	-	-	0.015	-
HCM Control Delay (s)	11.1	-	-	7.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Cumulative Conditions – Long Term Baseline

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	130	305	235	190	145	255	480	95	70	615	195
Future Volume (veh/h)	160	130	305	235	190	145	255	480	95	70	615	195
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1727	1727	1827	1840	1900	1827	1863	1863	1900	1818	1900
Adj Flow Rate, veh/h	184	149	351	270	218	167	293	552	109	80	707	224
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	10	10	4	5	5	4	2	2	0	5	5
Cap, veh/h	378	372	309	375	207	159	288	706	591	101	677	215
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.17	0.38	0.38	0.06	0.27	0.27
Sat Flow, veh/h	1757	1727	1433	1740	963	737	1740	1863	1560	1810	2552	809
Grp Volume(v), veh/h	184	149	351	270	0	385	293	552	109	80	478	453
Grp Sat Flow(s),veh/h/ln	1757	1727	1433	1740	0	1700	1740	1863	1560	1810	1727	1634
Q Serve(g_s), s	11.9	9.6	28.0	18.7	0.0	28.0	21.5	34.0	6.1	5.7	34.5	34.5
Cycle Q Clear(g_c), s	11.9	9.6	28.0	18.7	0.0	28.0	21.5	34.0	6.1	5.7	34.5	34.5
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	378	372	309	375	0	366	288	706	591	101	458	434
V/C Ratio(X)	0.49	0.40	1.14	0.72	0.00	1.05	1.02	0.78	0.18	0.79	1.04	1.04
Avail Cap(c_a), veh/h	378	372	309	375	0	366	288	706	591	111	458	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)	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	44.7	43.8	51.0	47.4	0.0	51.0	54.3	35.6	27.0	60.6	47.8	47.8
Incr Delay (d2), s/veh	0.4	0.3	93.6	5.8	0.0	61.2	57.8	5.2	0.1	25.7	53.9	55.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	4.6	19.1	9.6	0.0	19.3	14.9	18.5	2.6	3.6	23.3	22.2
LnGrp Delay(d),s/veh	45.1	44.1	144.6	53.1	0.0	112.2	112.1	40.9	27.0	86.4	101.7	102.9
LnGrp LOS	D	D	F	D		F	F	D	C	F	F	F
Approach Vol, veh/h		684			655			954			1011	
Approach Delay, s/veh		95.9			87.8			61.2			101.0	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.3	54.7		32.0	26.0	40.0		32.0
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	8.0	48.5		28.0	21.5	34.5		28.0
Max Q Clear Time (g_c+I1), s	7.7	36.0		30.0	23.5	36.5		30.0
Green Ext Time (p_c), s	0.0	5.7		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	85.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	10	5	5	5	425	0	480	5	535	775	10
Future Volume (veh/h)	55	10	5	5	5	425	0	480	5	535	775	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1658	1900	1900	1900	1827	1900	1827	1827	1827	1794	1900
Adj Flow Rate, veh/h	59	11	5	5	5	457	0	516	5	575	833	11
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	4	0	4	4	4	6	6
Cap, veh/h	221	37	13	218	200	864	2	557	467	604	1233	16
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.00	0.30	0.30	0.35	0.70	0.70
Sat Flow, veh/h	699	176	62	745	953	1545	1810	1827	1533	1740	1766	23
Grp Volume(v), veh/h	75	0	0	10	0	457	0	516	5	575	0	844
Grp Sat Flow(s),veh/h/ln	937	0	0	1698	0	1545	1810	1827	1533	1740	0	1789
Q Serve(g_s), s	5.1	0.0	0.0	0.0	0.0	16.2	0.0	23.8	0.2	28.0	0.0	23.5
Cycle Q Clear(g_c), s	5.7	0.0	0.0	0.4	0.0	16.2	0.0	23.8	0.2	28.0	0.0	23.5
Prop In Lane	0.79		0.07	0.50		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	271	0	0	418	0	864	2	557	467	604	0	1249
V/C Ratio(X)	0.28	0.00	0.00	0.02	0.00	0.53	0.00	0.93	0.01	0.95	0.00	0.68
Avail Cap(c_a), veh/h	273	0	0	423	0	868	114	598	502	620	0	1249
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.3	0.0	0.0	27.3	0.0	12.1	0.0	29.3	21.1	27.7	0.0	7.5
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.0	0.0	0.6	0.0	19.9	0.0	24.3	0.0	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	1.6	0.0	0.0	0.2	0.0	6.9	0.0	15.1	0.1	17.5	0.0	11.8
LnGrp Delay(d),s/veh	29.8	0.0	0.0	27.3	0.0	12.7	0.0	49.2	21.1	52.0	0.0	9.0
LnGrp LOS	C			C		B		D	C	D		A
Approach Vol, veh/h		75			467			521			1419	
Approach Delay, s/veh		29.8			13.0			49.0			26.4	
Approach LOS		C			B			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.2	30.5		22.3	0.0	64.8		22.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	31.0	28.5		18.5	5.5	54.0		18.5
Max Q Clear Time (g_c+I1), s	30.0	25.8		7.7	0.0	25.5		18.2
Green Ext Time (p_c), s	0.2	0.7		1.8	0.0	12.0		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		28.7
HCM 2010 LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	25	60	30	55	20	280	480	90	30	100	620
Future Volume (veh/h)	30	25	60	30	55	20	280	480	90	30	100	620
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1849	1845	1863	1795	1900	1863	1838	1900	1900	1810	1810
Adj Flow Rate, veh/h	33	27	66	33	60	22	308	527	99	33	110	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	3	2	8	8	2	4	4	0	5	5
Cap, veh/h	112	92	178	193	136	50	382	1113	208	70	365	310
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.22	0.38	0.38	0.04	0.20	0.00
Sat Flow, veh/h	990	810	1568	1774	1254	460	1774	2938	550	1810	1810	1538
Grp Volume(v), veh/h	60	0	66	33	0	82	308	312	314	33	110	0
Grp Sat Flow(s),veh/h/ln	1800	0	1568	1774	0	1714	1774	1746	1741	1810	1810	1538
Q Serve(g_s), s	1.2	0.0	1.5	0.7	0.0	1.8	6.5	5.4	5.4	0.7	2.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	1.5	0.7	0.0	1.8	6.5	5.4	5.4	0.7	2.0	0.0
Prop In Lane	0.55		1.00	1.00		0.27	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	204	0	178	193	0	186	382	661	660	70	365	310
V/C Ratio(X)	0.29	0.00	0.37	0.17	0.00	0.44	0.81	0.47	0.48	0.47	0.30	0.00
Avail Cap(c_a), veh/h	1089	0	949	823	0	795	895	1620	1616	297	1063	904
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	16.1	0.0	16.3	16.1	0.0	16.5	14.8	9.3	9.3	18.7	13.5	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.5	0.2	0.0	0.6	1.5	0.3	0.3	1.9	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	0.6	0.0	0.7	0.3	0.0	0.9	3.3	2.6	2.6	0.4	1.0	0.0
LnGrp Delay(d),s/veh	16.4	0.0	16.7	16.2	0.0	17.2	16.3	9.6	9.6	20.5	13.7	0.0
LnGrp LOS	B		B	B		B	B	A	A	C	B	
Approach Vol, veh/h		126			115			934			143	
Approach Delay, s/veh		16.6			16.9			11.8			15.3	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	18.7		8.0	11.5	11.7		8.4
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	6.5	36.8		24.0	20.0	23.3		18.4
Max Q Clear Time (g_c+I1), s	2.7	7.4		3.5	8.5	4.0		3.8
Green Ext Time (p_c), s	0.0	3.5		0.2	0.3	3.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	80.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	205	310	540	120	35	155
Future Vol, veh/h	205	310	540	120	35	155
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	91	91	91	91	91	91
Heavy Vehicles, %	2	4	3	6	10	2
Mvmt Flow	225	341	593	132	38	170

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	840	593	0	0	593	0
Stage 1	593	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	6.42	6.24	-	-	4.2	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	-	-	2.29	-
Pot Cap-1 Maneuver	335	502	-	-	945	-
Stage 1	552	-	-	-	-	-
Stage 2	794	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	320	502	-	-	945	-
Mov Cap-2 Maneuver	320	-	-	-	-	-
Stage 1	552	-	-	-	-	-
Stage 2	759	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	213.9	0	1.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	409	945	-
HCM Lane V/C Ratio	-	-	1.384	0.041	-
HCM Control Delay (s)	-	-	213.9	9	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	27.4	0.1	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	85	15	110	385	45	35
Future Vol, veh/h	85	15	110	385	45	35
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	88	88	88	88	88	88
Heavy Vehicles, %	4	9	7	3	18	6
Mvmt Flow	97	17	125	438	51	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	114	0	793	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	688	-
Critical Hdwy	-	-	4.17	-	6.58	6.26
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.263	-	3.662	3.354
Pot Cap-1 Maneuver	-	-	1445	-	336	939
Stage 1	-	-	-	-	881	-
Stage 2	-	-	-	-	471	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1445	-	298	939
Mov Cap-2 Maneuver	-	-	-	-	298	-
Stage 1	-	-	-	-	881	-
Stage 2	-	-	-	-	417	-

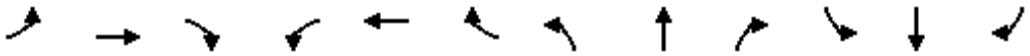
Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	15.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	425	-	-	1445	-
HCM Lane V/C Ratio	0.214	-	-	0.087	-
HCM Control Delay (s)	15.8	-	-	7.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	110	75	460	355	65	220	660	205	60	1490	250
Future Volume (veh/h)	85	110	75	460	355	65	220	660	205	60	1490	250
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1743	1863	1743	1810	1727	1792	1810	1827	1863	1881
Adj Flow Rate, veh/h	90	117	80	489	378	69	234	702	218	64	1585	266
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	9	2	9	5	10	6	5	4	2	1
Cap, veh/h	104	279	231	473	405	352	226	1792	1021	81	1541	794
Arrive On Green	0.06	0.16	0.16	0.14	0.23	0.23	0.14	0.53	0.53	0.05	0.44	0.44
Sat Flow, veh/h	1707	1792	1482	3442	1743	1518	1645	3406	1538	1740	3539	1599
Grp Volume(v), veh/h	90	117	80	489	378	69	234	702	218	64	1585	266
Grp Sat Flow(s),veh/h/ln	1707	1792	1482	1721	1743	1518	1645	1703	1538	1740	1770	1599
Q Serve(g_s), s	7.8	8.8	7.2	20.5	31.7	5.5	20.5	18.4	8.3	5.4	65.0	15.0
Cycle Q Clear(g_c), s	7.8	8.8	7.2	20.5	31.7	5.5	20.5	18.4	8.3	5.4	65.0	15.0
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	104	279	231	473	405	352	226	1792	1021	81	1541	794
V/C Ratio(X)	0.86	0.42	0.35	1.03	0.93	0.20	1.04	0.39	0.21	0.79	1.03	0.34
Avail Cap(c_a), veh/h	104	288	238	473	413	360	226	1792	1021	141	1541	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	56.9	56.2	64.4	56.2	46.1	64.4	21.1	9.8	70.4	42.1	22.7
Incr Delay (d2), s/veh	48.5	2.1	1.9	50.6	29.0	0.6	69.5	0.3	0.2	15.5	30.5	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	5.1	4.5	3.1	13.0	18.6	2.3	13.6	8.7	3.6	3.0	38.2	6.7
LnGrp Delay(d),s/veh	117.9	59.0	58.1	114.9	85.1	46.7	133.9	21.4	10.1	86.0	72.6	23.2
LnGrp LOS	F	E	E	F	F	D	F	C	B	F	F	C
Approach Vol, veh/h		287			936			1154			1915	
Approach Delay, s/veh		77.3			97.9			42.1			66.2	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	84.1	25.0	28.8	25.0	70.5	13.6	40.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	12.1	73.4	20.5	24.0	20.5	65.0	9.1	35.4
Max Q Clear Time (g_c+I1), s	7.4	20.4	22.5	10.8	22.5	67.0	9.8	33.7
Green Ext Time (p_c), s	0.0	49.4	0.0	5.2	0.0	0.0	0.0	0.9

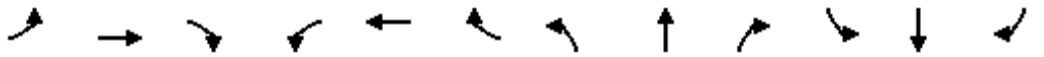
Intersection Summary	
HCM 2010 Ctrl Delay	67.3
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	65	295	0	220	0	840	25	80	1860	55
Future Volume (vph)	0	0	65	295	0	220	0	840	25	80	1860	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95		1.00	0.91	
Frpb, ped/bikes			0.99	1.00		1.00		1.00		1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00		1.00	1.00	
Frt			0.86	1.00		0.85		1.00		1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)			1459	1765		1495		3394		1736	5066	
Flt Permitted			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (perm)			1459	1765		1495		3394		1736	5066	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	69	314	0	234	0	894	27	85	1979	59
RTOR Reduction (vph)	0	0	52	0	0	177	0	3	0	0	5	0
Lane Group Flow (vph)	0	0	17	314	0	57	0	918	0	85	2033	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Perm		Perm		NA		Prot	NA	
Protected Phases								6		5	2	
Permitted Phases			4	8		8						
Actuated Green, G (s)			14.5	14.5		14.5		27.5		3.9	35.4	
Effective Green, g (s)			14.5	14.5		14.5		27.5		3.9	35.4	
Actuated g/C Ratio			0.24	0.24		0.24		0.46		0.07	0.60	
Clearance Time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Vehicle Extension (s)			3.0	4.0		4.0		4.0		0.5	4.0	
Lane Grp Cap (vph)			356	430		364		1571		113	3019	
v/s Ratio Prot								0.27		0.05	c0.40	
v/s Ratio Perm			0.01	c0.18		0.04						
v/c Ratio			0.05	0.73		0.16		0.58		0.75	0.67	
Uniform Delay, d1			17.2	20.7		17.6		11.7		27.3	8.1	
Progression Factor			1.00	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2			0.1	6.7		0.3		0.7		21.8	0.7	
Delay (s)			17.2	27.3		17.9		12.4		49.1	8.8	
Level of Service			B	C		B		B		D	A	
Approach Delay (s)		17.2			23.3			12.4			10.4	
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	0.75		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	13.5
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

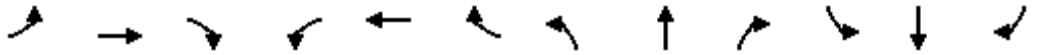
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	10	125	160	30	25	350	895	90	80	1850	145
Future Volume (veh/h)	70	10	125	160	30	25	350	895	90	80	1850	145
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1776	1881	1743	1845	1863
Adj Flow Rate, veh/h	73	10	130	167	31	26	365	932	94	83	1927	151
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	1	9	3	2
Cap, veh/h	92	129	182	191	233	204	392	2039	965	104	2202	683
Arrive On Green	0.06	0.07	0.07	0.12	0.13	0.13	0.23	0.60	0.60	0.06	0.44	0.44
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	3374	1598	1660	5036	1562
Grp Volume(v), veh/h	73	10	130	167	31	26	365	932	94	83	1927	151
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1687	1598	1660	1679	1562
Q Serve(g_s), s	5.2	0.6	6.2	11.9	1.9	1.8	25.0	18.0	2.9	5.9	41.6	7.2
Cycle Q Clear(g_c), s	5.2	0.6	6.2	11.9	1.9	1.8	25.0	18.0	2.9	5.9	41.6	7.2
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	92	129	182	191	233	204	392	2039	965	104	2202	683
V/C Ratio(X)	0.80	0.08	0.71	0.87	0.13	0.13	0.93	0.46	0.10	0.80	0.88	0.22
Avail Cap(c_a), veh/h	186	439	617	200	449	393	430	2039	965	198	2261	701
HCM Platoon Ratio	1.00	1.00	1.00	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	55.6	51.4	53.9	51.8	45.4	45.4	45.0	12.9	9.9	55.1	30.6	20.9
Incr Delay (d2), s/veh	14.4	0.3	5.1	30.9	0.3	0.3	26.0	0.3	0.1	13.1	4.5	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	2.7	0.3	2.2	7.1	0.9	0.8	14.6	8.4	1.3	3.1	20.2	3.2
LnGrp Delay(d),s/veh	70.0	51.6	59.1	82.7	45.7	45.7	71.0	13.2	10.0	68.2	35.0	21.2
LnGrp LOS	E	D	E	F	D	D	E	B	B	E	D	C
Approach Vol, veh/h		213			224			1391			2161	
Approach Delay, s/veh		62.5			73.3			28.2			35.3	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	77.0	17.9	12.8	31.3	57.1	10.6	20.1
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	14.2	69.3	14.5	30.0	30.0	53.5	13.5	31.0
Max Q Clear Time (g_c+I1), s	7.9	20.0	13.9	8.2	27.0	43.6	7.2	3.9
Green Ext Time (p_c), s	0.1	47.7	0.0	0.8	0.4	8.5	0.1	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	36.4
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	65	735	55	340	80	990	150	0	2085	50
Future Volume (veh/h)	5	0	65	735	55	340	80	990	150	0	2085	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1759	1845	1799	1776	1827	1792	1681	0	1696	1900
Adj Flow Rate, veh/h	5	0	71	799	0	410	87	1076	163	0	2266	54
Adj No. of Lanes	1	0	1	2	0	2	1	3	1	0	3	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
Percent Heavy Veh, %	0	0	8	3	2	7	4	6	13	0	12	0
Cap, veh/h	11	0	0	847	0	606	247	3341	976	0	2308	805
Arrive On Green	0.01	0.00	0.00	0.24	0.00	0.20	0.28	1.00	1.00	0.00	0.50	0.50
Sat Flow, veh/h	1810	5		3514	0	3019	1740	4893	1429	0	4784	1615
Grp Volume(v), veh/h	5	81.9		799	0	410	87	1076	163	0	2266	54
Grp Sat Flow(s),veh/h/ln	1810	F		1757	0	1509	1740	1631	1429	0	1544	1615
Q Serve(g_s), s	0.4			32.6	0.0	18.3	5.8	0.0	0.0	0.0	70.2	2.1
Cycle Q Clear(g_c), s	0.4			32.6	0.0	18.3	5.8	0.0	0.0	0.0	70.2	2.1
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	11			847	0	606	247	3341	976	0	2308	805
V/C Ratio(X)	0.44			0.94	0.00	0.68	0.35	0.32	0.17	0.00	0.98	0.07
Avail Cap(c_a), veh/h	62			1179	0	806	247	3341	976	0	2312	806
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00			1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.41	0.41
Uniform Delay (d), s/veh	72.3			54.4	0.0	54.0	46.9	0.0	0.0	0.0	36.0	13.4
Incr Delay (d2), s/veh	9.6			10.2	0.0	0.6	0.3	0.3	0.4	0.0	8.5	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
%ile BackOfQ(50%),veh/ln	0.2			17.1	0.0	7.7	2.8	0.1	0.1	0.0	31.6	1.0
LnGrp Delay(d),s/veh	81.9			64.6	0.0	54.6	47.3	0.3	0.4	0.0	44.5	13.5
LnGrp LOS	F			E		D	D	A	A		D	B
Approach Vol, veh/h					1209			1326			2320	
Approach Delay, s/veh					61.2			3.4			43.7	
Approach LOS					E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		105.9	40.1		26.9	79.0	5.5	34.6
Change Period (Y+Rc), s		6.2	4.9		6.2	* 6.2	4.6	5.3
Max Green Setting (Gmax), s		85.9	49.0		8.3	* 73	5.0	39.0
Max Q Clear Time (g_c+I1), s		2.0	34.6		7.8	72.2	2.4	20.3
Green Ext Time (p_c), s		3.5	0.6		0.0	0.6	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	37.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	115	425	15	0	30	0	1165	35	220	1980	170
Future Volume (veh/h)	505	115	425	15	0	30	0	1165	35	220	1980	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1845	1776	1845	0	1863	0	1667	1792	1863	1863	1743
Adj Flow Rate, veh/h	549	125	462	16	0	33	0	1266	38	239	2152	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	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
Percent Heavy Veh, %	7	3	7	3	0	2	0	14	6	2	2	9
Cap, veh/h	1108	1008	434	32	0	0	0	2724	724	281	2082	872
Arrive On Green	0.34	0.29	0.29	0.02	0.00	0.00	0.00	0.48	0.48	0.16	1.00	0.00
Sat Flow, veh/h	3281	3505	1509	1757	16		0	5967	1524	3442	3539	1482
Grp Volume(v), veh/h	549	125	462	16	75.2		0	1266	38	239	2152	0
Grp Sat Flow(s),veh/h/ln	1640	1752	1509	1757	E		0	1433	1524	1721	1770	1482
Q Serve(g_s), s	19.4	3.8	42.0	1.3			0.0	21.7	1.6	9.8	85.9	0.0
Cycle Q Clear(g_c), s	19.4	3.8	42.0	1.3			0.0	21.7	1.6	9.8	85.9	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1108	1008	434	32			0	2724	724	281	2082	872
V/C Ratio(X)	0.50	0.12	1.06	0.49			0.00	0.46	0.05	0.85	1.03	0.00
Avail Cap(c_a), veh/h	1108	1008	434	84			0	2724	724	389	2082	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00			0.00	0.96	0.96	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.5	38.4	52.0	71.0			0.0	25.8	14.0	60.2	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	61.2	4.2			0.0	0.5	0.1	9.2	28.9	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
%ile BackOfQ(50%),veh/ln	8.9	1.9	24.9	0.7			0.0	8.7	0.7	5.0	8.4	0.0
LnGrp Delay(d),s/veh	38.7	38.4	113.2	75.2			0.0	26.4	14.1	69.4	28.9	0.0
LnGrp LOS	D	D	F	E				C	B	E	F	
Approach Vol, veh/h		1136						1304			2391	
Approach Delay, s/veh		69.0						26.0			33.0	
Approach LOS		E						C			C	

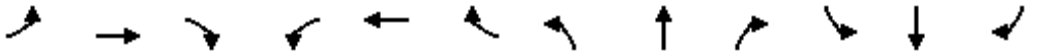
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	16.5	75.6	7.3	46.6		92.1	53.9	
Change Period (Y+Rc), s	4.6	6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	16.5	60.5	7.0	42.0		81.6	33.7	
Max Q Clear Time (g_c+I1), s	11.8	23.7	3.3	44.0		87.9	21.4	
Green Ext Time (p_c), s	0.1	19.8	0.0	0.0		0.0	1.3	

Intersection Summary	
HCM 2010 Ctrl Delay	39.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	5	65	15	5	70	60	1000	20	0	2235	185
Future Volume (veh/h)	130	5	65	15	5	70	60	1000	20	0	2235	185
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1891	1532	1863	1776	1900	0	1810	1863
Adj Flow Rate, veh/h	141	5	71	16	5	76	65	1087	22	0	2429	201
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	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
Percent Heavy Veh, %	2	2	2	2	2	24	2	7	7	0	5	2
Cap, veh/h	166	10	140	98	31	92	65	4632	94	0	2335	1075
Arrive On Green	0.09	0.09	0.09	0.07	0.07	0.07	0.04	0.75	0.75	0.00	0.68	0.68
Sat Flow, veh/h	1774	105	1494	1388	434	1302	1774	6212	126	0	3529	1583
Grp Volume(v), veh/h	141	0	76	21	0	76	65	802	307	0	2429	201
Grp Sat Flow(s),veh/h/ln	1774	0	1599	1822	0	1302	1774	1528	1754	0	1719	1583
Q Serve(g_s), s	11.7	0.0	6.8	1.6	0.0	8.6	5.5	8.1	8.1	0.0	101.9	7.0
Cycle Q Clear(g_c), s	11.7	0.0	6.8	1.6	0.0	8.6	5.5	8.1	8.1	0.0	101.9	7.0
Prop In Lane	1.00		0.93	0.76		1.00	1.00		0.07	0.00		1.00
Lane Grp Cap(c), veh/h	166	0	150	129	0	92	65	3418	1308	0	2335	1075
V/C Ratio(X)	0.85	0.00	0.51	0.16	0.00	0.83	1.00	0.23	0.24	0.00	1.04	0.19
Avail Cap(c_a), veh/h	213	0	192	219	0	156	65	3418	1308	0	2335	1075
HCM Platoon Ratio	1.00	1.00	1.00	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	0.88	0.88	0.88	0.00	0.16	0.16
Uniform Delay (d), s/veh	66.9	0.0	64.7	65.5	0.0	68.8	72.2	5.9	5.9	0.0	24.1	8.8
Incr Delay (d2), s/veh	21.8	0.0	2.6	0.6	0.0	16.6	104.5	0.1	0.4	0.0	20.9	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	6.8	0.0	3.1	0.8	0.0	3.5	4.6	3.5	4.1	0.0	54.8	3.1
LnGrp Delay(d),s/veh	88.7	0.0	67.3	66.1	0.0	85.4	176.7	6.0	6.2	0.0	45.0	8.9
LnGrp LOS	F		E	E		F	F	A	A		F	A
Approach Vol, veh/h		217			97			1174			2630	
Approach Delay, s/veh		81.2			81.2			15.5			42.3	
Approach LOS		F			F			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		116.4		18.5	10.0	106.4		15.1
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		100.5		18.0	5.5	90.5		18.0
Max Q Clear Time (g_c+I1), s		10.1		13.7	7.5	103.9		10.6
Green Ext Time (p_c), s		80.8		0.3	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	35	240	105	120	10	290	945	75	60	2030	225
Future Volume (veh/h)	125	35	240	105	120	10	290	945	75	60	2030	225
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1267	1900	1900	1597	1900	1520	1900	1792	1743	1387	1827	1429
Adj Flow Rate, veh/h	136	38	261	114	130	11	315	1027	82	65	2207	245
Adj No. of Lanes	1	1	1	2	1	1	1	3	1	1	2	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
Percent Heavy Veh, %	50	0	0	19	0	25	0	6	9	37	4	33
Cap, veh/h	102	352	299	156	292	198	233	2729	826	77	1692	591
Arrive On Green	0.08	0.19	0.19	0.05	0.15	0.15	0.13	0.56	0.56	0.06	0.49	0.49
Sat Flow, veh/h	1206	1900	1615	2950	1900	1292	1810	4893	1480	1321	3471	1213
Grp Volume(v), veh/h	136	38	261	114	130	11	315	1027	82	65	2207	245
Grp Sat Flow(s),veh/h/ln	1206	1900	1615	1475	1900	1292	1810	1631	1480	1321	1736	1213
Q Serve(g_s), s	11.5	2.3	21.3	5.2	8.4	1.0	17.5	16.0	3.5	6.6	66.2	17.6
Cycle Q Clear(g_c), s	11.5	2.3	21.3	5.2	8.4	1.0	17.5	16.0	3.5	6.6	66.2	17.6
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	102	352	299	156	292	198	233	2729	826	77	1692	591
V/C Ratio(X)	1.33	0.11	0.87	0.73	0.45	0.06	1.35	0.38	0.10	0.84	1.30	0.41
Avail Cap(c_a), veh/h	102	495	421	241	490	333	233	2729	826	155	1692	591
HCM Platoon Ratio	1.00	1.00	1.00	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	62.2	46.0	53.8	63.4	52.3	49.1	59.2	16.8	14.1	63.3	34.8	22.4
Incr Delay (d2), s/veh	201.7	0.2	14.4	6.5	1.3	0.1	183.7	0.1	0.1	20.8	141.5	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	9.5	1.2	10.7	2.2	4.5	0.4	20.6	7.2	1.5	2.9	64.7	6.0
LnGrp Delay(d),s/veh	263.8	46.2	68.2	69.8	53.5	49.2	242.8	16.9	14.1	84.1	176.4	22.9
LnGrp LOS	F	D	E	E	D	D	F	B	B	F	F	C
Approach Vol, veh/h		435			255			1424			2517	
Approach Delay, s/veh		127.4			60.6			66.7			159.1	
Approach LOS		F			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	81.6	11.7	30.2	22.0	72.0	16.0	25.8
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	15.9	67.8	11.1	35.4	17.5	66.2	11.5	35.0
Max Q Clear Time (g_c+I1), s	8.6	18.0	7.2	23.3	19.5	68.2	13.5	10.4
Green Ext Time (p_c), s	0.1	47.2	0.1	1.8	0.0	0.0	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	122.3
HCM 2010 LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	15	175	1210	1755	785
Future Volume (veh/h)	40	15	175	1210	1755	785
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1900	1900	1810	1837	1900
Adj Flow Rate, veh/h	53	20	230	1592	2309	1033
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	5	0	0	5	5	5
Cap, veh/h	116	56	254	3058	2538	992
Arrive On Green	0.03	0.03	0.14	0.89	0.72	0.72
Sat Flow, veh/h	3343	1615	1810	3529	3712	1387
Grp Volume(v), veh/h	53	20	230	1592	2157	1185
Grp Sat Flow(s),veh/h/ln	1672	1615	1810	1719	1671	1591
Q Serve(g_s), s	2.1	1.6	16.8	12.8	69.6	96.3
Cycle Q Clear(g_c), s	2.1	1.6	16.8	12.8	69.6	96.3
Prop In Lane	1.00	1.00	1.00			0.87
Lane Grp Cap(c), veh/h	116	56	254	3058	2392	1138
V/C Ratio(X)	0.46	0.36	0.91	0.52	0.90	1.04
Avail Cap(c_a), veh/h	484	234	262	3074	2392	1138
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	63.7	63.5	57.0	1.5	15.3	19.1
Incr Delay (d2), s/veh	2.8	3.8	31.5	0.2	5.3	38.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.8	10.7	5.8	33.5	53.7
LnGrp Delay(d),s/veh	66.5	67.3	88.5	1.7	20.6	57.1
LnGrp LOS	E	E	F	A	C	F
Approach Vol, veh/h	73			1822	3342	
Approach Delay, s/veh	66.7			12.7	33.5	
Approach LOS	E			B	C	

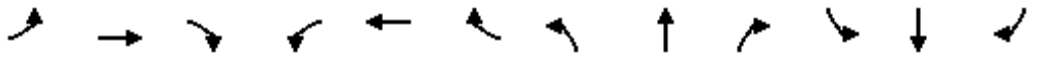
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		9.2	23.4	102.0				125.4
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		19.5	19.5	96.3				120.3
Max Q Clear Time (g_c+I1), s		4.1	18.8	98.3				14.8
Green Ext Time (p_c), s		0.1	0.0	0.0				104.7

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	580	225	185	387	290	487	990	110	150	1165	305
Future Volume (veh/h)	105	580	225	185	387	290	487	990	110	150	1165	305
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1863	1845	1900	1863	1900	1881	1779	1900	1696	1827	1827
Adj Flow Rate, veh/h	114	630	245	201	421	315	529	1076	120	163	1266	332
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	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
Percent Heavy Veh, %	6	2	3	0	2	2	1	7	7	12	4	4
Cap, veh/h	140	1000	438	158	552	409	438	1070	119	157	1596	487
Arrive On Green	0.08	0.28	0.28	0.09	0.29	0.29	0.13	0.35	0.35	0.10	0.32	0.32
Sat Flow, veh/h	1707	3539	1551	1810	1919	1423	3476	3064	341	1616	4988	1520
Grp Volume(v), veh/h	114	630	245	201	388	348	529	593	603	163	1266	332
Grp Sat Flow(s),veh/h/ln	1707	1770	1551	1810	1770	1572	1738	1690	1716	1616	1663	1520
Q Serve(g_s), s	6.8	16.0	13.9	9.0	20.6	20.9	13.0	36.0	36.0	10.0	23.9	19.6
Cycle Q Clear(g_c), s	6.8	16.0	13.9	9.0	20.6	20.9	13.0	36.0	36.0	10.0	23.9	19.6
Prop In Lane	1.00		1.00	1.00		0.91	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	140	1000	438	158	509	452	438	590	599	157	1596	487
V/C Ratio(X)	0.81	0.63	0.56	1.27	0.76	0.77	1.21	1.01	1.01	1.04	0.79	0.68
Avail Cap(c_a), veh/h	166	1064	466	158	515	457	438	590	599	157	1596	487
HCM Platoon Ratio	1.00	1.00	1.00	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	46.6	32.3	31.5	47.1	33.5	33.6	45.1	33.6	33.6	46.6	32.0	30.5
Incr Delay (d2), s/veh	22.6	2.5	4.1	162.8	7.0	8.2	113.0	38.3	38.5	83.0	3.0	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	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	8.1	6.4	11.6	11.0	10.1	13.1	23.0	23.4	8.1	11.3	8.8
LnGrp Delay(d),s/veh	69.1	34.8	35.6	209.9	40.5	41.8	158.1	71.9	72.1	129.8	34.9	34.8
LnGrp LOS	E	C	D	F	D	D	F	F	F	F	C	C
Approach Vol, veh/h		989			937			1725			1761	
Approach Delay, s/veh		39.0			77.4			98.4			43.7	
Approach LOS		D			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	41.0	13.0	35.1	17.0	38.0	12.5	35.7
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	10.0	36.0	9.0	31.0	13.0	33.0	10.0	30.0
Max Q Clear Time (g_c+I1), s	12.0	38.0	11.0	18.0	15.0	25.9	8.8	22.9
Green Ext Time (p_c), s	0.0	0.0	0.0	10.8	0.0	7.0	0.0	6.3

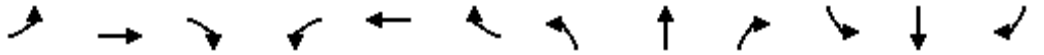
Intersection Summary	
HCM 2010 Ctrl Delay	66.1
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	40	125	90	310	60	270	285	165	60	640	90
Future Volume (veh/h)	20	40	125	90	310	60	270	285	165	60	640	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1477	1484	1900	1722	1792	1712	1694	1900	1387	1776	1727
Adj Flow Rate, veh/h	22	44	137	99	341	66	297	313	181	66	703	99
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	33	33	28	9	9	6	11	7	7	37	7	10
Cap, veh/h	44	54	351	40	37	424	299	539	312	78	729	589
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.18	0.53	0.53	0.06	0.41	0.41
Sat Flow, veh/h	0	193	1259	0	133	1522	1630	1008	583	1321	1776	1436
Grp Volume(v), veh/h	66	0	137	440	0	66	297	0	494	66	703	99
Grp Sat Flow(s),veh/h/ln	193	0	1259	133	0	1522	1630	0	1591	1321	1776	1436
Q Serve(g_s), s	0.0	0.0	9.6	0.0	0.0	3.6	19.9	0.0	23.0	5.4	42.3	4.8
Cycle Q Clear(g_c), s	30.5	0.0	9.6	30.5	0.0	3.6	19.9	0.0	23.0	5.4	42.3	4.8
Prop In Lane	0.33		1.00	0.22		1.00	1.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	98	0	351	77	0	424	299	0	851	78	729	589
V/C Ratio(X)	0.68	0.00	0.39	5.69	0.00	0.16	0.99	0.00	0.58	0.85	0.96	0.17
Avail Cap(c_a), veh/h	98	0	351	77	0	424	299	0	851	152	736	595
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	0.0	32.0	40.7	0.0	29.8	44.7	0.0	17.2	51.0	31.5	20.5
Incr Delay (d2), s/veh	17.7	0.0	0.8	2136.4	0.0	0.2	50.0	0.0	1.9	23.7	25.2	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	2.0	0.0	3.4	48.2	0.0	1.5	13.1	0.0	10.5	2.5	25.8	2.0
LnGrp Delay(d),s/veh	50.7	0.0	32.8	2177.1	0.0	30.0	94.7	0.0	19.1	74.7	56.8	20.8
LnGrp LOS	D		C	F		C	F		B	E	E	C
Approach Vol, veh/h		203			506			791			868	
Approach Delay, s/veh		38.7			1897.0			47.5			54.0	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.6	64.0		35.0	24.2	50.3		35.0
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	12.6	52.9		30.5	20.1	45.4		30.5
Max Q Clear Time (g_c+I1), s	7.4	25.0		32.5	21.9	44.3		32.5
Green Ext Time (p_c), s	0.1	19.5		0.0	0.0	0.6		0.0

Intersection Summary		
HCM 2010 Ctrl Delay	444.3	
HCM 2010 LOS	F	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	90	60	730	205	195	55	695	810	250	645	20
Future Volume (veh/h)	25	90	60	730	205	195	55	695	810	250	645	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1624	1881	1900	1845	1837	1863	1863	1792	1863	1827	1779	1900
Adj Flow Rate, veh/h	28	100	67	520	636	217	61	772	900	278	717	22
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	17	1	1	3	4	2	2	6	2	4	7	7
Cap, veh/h	130	177	109	521	545	467	78	1202	558	222	1460	45
Arrive On Green	0.08	0.08	0.08	0.30	0.30	0.30	0.04	0.35	0.35	0.13	0.44	0.44
Sat Flow, veh/h	1547	2110	1301	1757	1837	1575	1774	3406	1581	1740	3346	103
Grp Volume(v), veh/h	28	83	84	520	636	217	61	772	900	278	362	377
Grp Sat Flow(s),veh/h/ln	1547	1787	1624	1757	1837	1575	1774	1703	1581	1740	1690	1758
Q Serve(g_s), s	2.2	6.0	6.6	39.4	39.5	15.0	4.5	25.3	47.0	17.0	20.5	20.5
Cycle Q Clear(g_c), s	2.2	6.0	6.6	39.4	39.5	15.0	4.5	25.3	47.0	17.0	20.5	20.5
Prop In Lane	1.00		0.80	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	130	150	137	521	545	467	78	1202	558	222	737	767
V/C Ratio(X)	0.22	0.55	0.61	1.00	1.17	0.46	0.78	0.64	1.61	1.25	0.49	0.49
Avail Cap(c_a), veh/h	325	376	341	521	545	467	147	1202	558	222	737	767
HCM Platoon Ratio	1.00	1.00	1.00	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	56.9	58.6	58.9	46.8	46.9	38.2	63.0	36.1	43.1	58.1	26.9	26.9
Incr Delay (d2), s/veh	0.8	3.2	4.4	38.9	93.9	0.7	15.2	1.3	284.4	144.9	0.7	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	3.1	3.1	24.7	34.2	6.6	2.5	12.1	64.5	17.1	9.7	10.1
LnGrp Delay(d),s/veh	57.7	61.8	63.3	85.7	140.7	38.9	78.2	37.4	327.5	203.0	27.7	27.6
LnGrp LOS	E	E	E	F	F	D	E	D	F	F	C	C
Approach Vol, veh/h		195			1373			1733			1017	
Approach Delay, s/veh		61.8			103.8			189.5			75.6	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	52.0		16.2	9.9	63.1		44.0
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	17.0	47.0		28.0	11.0	53.0		39.5
Max Q Clear Time (g_c+I1), s	19.0	49.0		8.6	6.5	22.5		41.5
Green Ext Time (p_c), s	0.0	0.0		0.9	0.0	24.5		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		129.7
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	1045	15	15	1105	460	20	10	10	370	15	190
Future Volume (veh/h)	135	1045	15	15	1105	460	20	10	10	370	15	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1881	1900	1792	1863	1827	1900	1659	1900	1759	1769	1776
Adj Flow Rate, veh/h	155	1201	17	17	1270	0	23	11	11	437	0	218
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	1	1	6	2	4	0	12	12	8	0	7
Cap, veh/h	202	1662	24	27	1282	563	159	66	66	698	0	312
Arrive On Green	0.11	0.46	0.46	0.02	0.36	0.00	0.09	0.09	0.09	0.21	0.00	0.21
Sat Flow, veh/h	1774	3609	51	1707	3539	1553	1810	757	757	3351	0	1501
Grp Volume(v), veh/h	155	595	623	17	1270	0	23	0	22	437	0	218
Grp Sat Flow(s),veh/h/ln	1774	1787	1872	1707	1770	1553	1810	0	1513	1675	0	1501
Q Serve(g_s), s	7.3	23.0	23.0	0.8	30.5	0.0	1.0	0.0	1.2	10.2	0.0	11.5
Cycle Q Clear(g_c), s	7.3	23.0	23.0	0.8	30.5	0.0	1.0	0.0	1.2	10.2	0.0	11.5
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	202	823	863	27	1282	563	159	0	133	698	0	312
V/C Ratio(X)	0.77	0.72	0.72	0.64	0.99	0.00	0.15	0.00	0.17	0.63	0.00	0.70
Avail Cap(c_a), veh/h	207	823	863	100	1282	563	159	0	133	1253	0	561
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.8	18.6	18.7	41.9	27.1	0.0	36.1	0.0	36.1	30.8	0.0	31.4
Incr Delay (d2), s/veh	15.4	4.8	4.6	22.9	22.9	0.0	1.9	0.0	2.7	1.3	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	4.4	12.3	12.9	0.6	18.9	0.0	0.6	0.0	0.6	4.8	0.0	5.1
LnGrp Delay(d),s/veh	52.2	23.5	23.3	64.8	50.0	0.0	38.0	0.0	38.8	32.2	0.0	35.4
LnGrp LOS	D	C	C	E	D		D		D	C		D
Approach Vol, veh/h		1373			1287			45			655	
Approach Delay, s/veh		26.6			50.2			38.4			33.2	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.5	5.8	44.4		22.8	14.2	36.0
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		7.5	5.0	36.0		32.0	10.0	31.0
Max Q Clear Time (g_c+I1), s		3.2	2.8	25.0		13.5	9.3	32.5
Green Ext Time (p_c), s		0.0	0.0	10.8		3.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	930	465	330	1215	0	0	0	0	95	0	390
Future Volume (veh/h)	0	930	465	330	1215	0	0	0	0	95	0	390
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1810	1881	1845	0				1827	1827	1900
Adj Flow Rate, veh/h	0	1045	522	371	1365	0				107	0	438
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	5	1	3	0				4	0	4
Cap, veh/h	0	1255	544	404	2251	0				445	0	397
Arrive On Green	0.00	0.35	0.35	0.23	0.64	0.00				0.26	0.00	0.26
Sat Flow, veh/h	0	3632	1534	1792	3597	0				1740	0	1553
Grp Volume(v), veh/h	0	1045	522	371	1365	0				107	0	438
Grp Sat Flow(s),veh/h/ln	0	1770	1534	1792	1752	0				1740	0	1553
Q Serve(g_s), s	0.0	24.3	30.0	18.2	20.5	0.0				4.4	0.0	23.0
Cycle Q Clear(g_c), s	0.0	24.3	30.0	18.2	20.5	0.0				4.4	0.0	23.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1255	544	404	2251	0				445	0	397
V/C Ratio(X)	0.00	0.83	0.96	0.92	0.61	0.00				0.24	0.00	1.10
Avail Cap(c_a), veh/h	0	1255	544	426	2251	0				445	0	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.65	0.65	0.30	0.30	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.6	28.4	34.0	9.4	0.0				26.6	0.0	33.5
Incr Delay (d2), s/veh	0.0	4.4	22.9	9.1	0.4	0.0				0.1	0.0	76.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.7	16.1	10.0	10.0	0.0				2.1	0.0	18.2
LnGrp Delay(d),s/veh	0.0	31.0	51.3	43.2	9.8	0.0				26.7	0.0	109.7
LnGrp LOS		C	D	D	A					C		F
Approach Vol, veh/h		1567			1736						545	
Approach Delay, s/veh		37.8			16.9						93.4	
Approach LOS		D			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	25.9	37.0		27.1		62.9		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	21.4	30.8		23.0		57.8		
Max Q Clear Time (g_c+I1), s	20.2	32.0		25.0		22.5		
Green Ext Time (p_c), s	0.1	0.0		0.0		20.7		

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	835	0	0	990	65	555	5	1295	0	0	0
Future Volume (veh/h)	190	835	0	0	990	65	555	5	1295	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1863	0	0	1863	1863	1845	1878	1881			
Adj Flow Rate, veh/h	211	928	0	0	1100	72	413	0	1661			
Adj No. of Lanes	1	2	0	0	2	1	1	0	2			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	3	2	0	0	2	2	3	0	1			
Cap, veh/h	216	1654	0	0	1107	495	797	0	1451			
Arrive On Green	0.12	0.47	0.00	0.00	0.31	0.31	0.45	0.00	0.45			
Sat Flow, veh/h	1757	3632	0	0	3632	1583	1757	0	3198			
Grp Volume(v), veh/h	211	928	0	0	1100	72	413	0	1661			
Grp Sat Flow(s),veh/h/ln	1757	1770	0	0	1770	1583	1757	0	1599			
Q Serve(g_s), s	13.2	20.8	0.0	0.0	34.1	3.6	18.5	0.0	49.9			
Cycle Q Clear(g_c), s	13.2	20.8	0.0	0.0	34.1	3.6	18.5	0.0	49.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	216	1654	0	0	1107	495	797	0	1451			
V/C Ratio(X)	0.98	0.56	0.00	0.00	0.99	0.15	0.52	0.00	1.14			
Avail Cap(c_a), veh/h	216	1654	0	0	1107	495	797	0	1451			
HCM Platoon Ratio	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	0.00	0.00	0.89	0.89	1.00	0.00	1.00			
Uniform Delay (d), s/veh	48.1	21.2	0.0	0.0	37.7	27.2	21.5	0.0	30.0			
Incr Delay (d2), s/veh	39.5	0.8	0.0	0.0	24.1	0.5	0.8	0.0	73.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.8	10.4	0.0	0.0	20.4	1.7	9.1	0.0	36.8			
LnGrp Delay(d),s/veh	87.6	21.9	0.0	0.0	61.8	27.8	22.3	0.0	103.9			
LnGrp LOS	F	C			E	C	C		F			
Approach Vol, veh/h		1139			1172			2074				
Approach Delay, s/veh		34.1			59.7			87.7				
Approach LOS		C			E			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		56.0			17.0	39.0		54.0
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		51.4			13.5	34.4		49.9
Max Q Clear Time (g_c+I1), s		22.8			15.2	36.1		51.9
Green Ext Time (p_c), s		13.2			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	66.3
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1895	185	30	745	0	310	0	70	0	0	0
Future Volume (veh/h)	50	1895	185	30	745	0	310	0	70	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1866	1900	1583	1863	0	1845	0	1638			
Adj Flow Rate, veh/h	57	2178	213	34	856	0	356	0	80			
Adj No. of Lanes	1	3	0	1	3	0	1	0	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	1	1	20	2	0	3	0	16			
Cap, veh/h	103	2604	251	41	2659	0	409	0	324			
Arrive On Green	0.06	0.55	0.55	0.03	0.52	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	1810	4715	454	1508	5253	0	1757	0	1392			
Grp Volume(v), veh/h	57	1560	831	34	856	0	356	0	80			
Grp Sat Flow(s),veh/h/ln	1810	1698	1773	1508	1695	0	1757	0	1392			
Q Serve(g_s), s	2.2	27.4	28.4	1.6	7.0	0.0	14.0	0.0	3.4			
Cycle Q Clear(g_c), s	2.2	27.4	28.4	1.6	7.0	0.0	14.0	0.0	3.4			
Prop In Lane	1.00		0.26	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	103	1876	979	41	2659	0	409	0	324			
V/C Ratio(X)	0.56	0.83	0.85	0.82	0.32	0.00	0.87	0.00	0.25			
Avail Cap(c_a), veh/h	151	1876	979	117	2755	0	525	0	416			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.1	13.3	13.6	34.8	9.9	0.0	26.6	0.0	22.5			
Incr Delay (d2), s/veh	4.6	3.9	8.1	31.3	0.2	0.0	12.1	0.0	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			
%ile BackOfQ(50%),veh/ln	1.2	13.6	15.8	1.0	3.3	0.0	8.2	0.0	1.3			
LnGrp Delay(d),s/veh	37.7	17.2	21.7	66.2	10.0	0.0	38.7	0.0	22.9			
LnGrp LOS	D	B	C	E	B		D		C			
Approach Vol, veh/h		2448			890			436				
Approach Delay, s/veh		19.2			12.2			35.8				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	6.0	44.8			8.1	42.6		21.3
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.6	39.4			6.0	39.0		21.5
Max Q Clear Time (g_c+I1), s	3.6	30.4			4.2	9.0		16.0
Green Ext Time (p_c), s	0.0	8.9			0.0	28.7		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	20	865	2140	5
Future Vol, veh/h	0	0	20	865	2140	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	135	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	21	911	2253	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1129	2258	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	0	173	95	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	173	95	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	95	-	-	-	-
HCM Lane V/C Ratio	0.222	-	-	-	-
HCM Control Delay (s)	53.4	-	0	-	-
HCM Lane LOS	F	-	A	-	-
HCM 95th %tile Q(veh)	0.8	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	215	35	205	355	160	70	90	40	105	390	90
Future Volume (veh/h)	120	215	35	205	355	160	70	90	40	105	390	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	130	234	38	223	386	174	76	98	43	114	424	98
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	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	162	430	70	263	403	182	98	661	275	144	851	195
Arrive On Green	0.09	0.27	0.27	0.15	0.33	0.33	0.05	0.27	0.27	0.08	0.30	0.30
Sat Flow, veh/h	1774	1564	254	1774	1217	549	1774	2438	1015	1774	2861	656
Grp Volume(v), veh/h	130	0	272	223	0	560	76	70	71	114	261	261
Grp Sat Flow(s),veh/h/ln	1774	0	1818	1774	0	1766	1774	1770	1684	1774	1770	1747
Q Serve(g_s), s	5.7	0.0	10.2	9.8	0.0	24.8	3.4	2.4	2.6	5.0	9.7	9.9
Cycle Q Clear(g_c), s	5.7	0.0	10.2	9.8	0.0	24.8	3.4	2.4	2.6	5.0	9.7	9.9
Prop In Lane	1.00		0.14	1.00		0.31	1.00		0.60	1.00		0.38
Lane Grp Cap(c), veh/h	162	0	499	263	0	585	98	480	456	144	526	519
V/C Ratio(X)	0.80	0.00	0.54	0.85	0.00	0.96	0.78	0.15	0.16	0.79	0.50	0.50
Avail Cap(c_a), veh/h	166	0	499	306	0	585	140	480	456	166	526	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	0.00	1.00	0.43	0.00	0.43	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	0.0	24.7	33.2	0.0	26.2	37.3	22.1	22.2	36.1	23.2	23.2
Incr Delay (d2), s/veh	23.3	0.0	1.2	8.4	0.0	15.3	16.0	0.6	0.7	19.8	3.3	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	3.9	0.0	5.3	5.4	0.0	14.5	2.1	1.2	1.3	3.3	5.2	5.3
LnGrp Delay(d),s/veh	59.0	0.0	26.0	41.7	0.0	41.5	53.3	22.8	22.9	55.9	26.5	26.7
LnGrp LOS	E		C	D		D	D	C	C	E	C	C
Approach Vol, veh/h		402			783			217			636	
Approach Delay, s/veh		36.6			41.6			33.5			31.8	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	26.2	16.3	26.5	8.9	28.3	11.8	31.0
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	20.5	13.8	20.2	6.3	21.7	7.5	26.5
Max Q Clear Time (g_c+I1), s	7.0	4.6	11.8	12.2	5.4	11.9	7.7	26.8
Green Ext Time (p_c), s	0.0	3.7	0.1	3.4	0.0	2.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	715	1180	50	10	515	115	160	10	20	15	5	65
Future Volume (veh/h)	715	1180	50	10	515	115	160	10	20	15	5	65
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	777	1283	54	11	560	125	174	11	22	16	42	46
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	812	2551	107	246	839	183	215	67	135	24	64	76
Arrive On Green	0.46	0.51	0.51	0.14	0.20	0.20	0.12	0.12	0.12	0.05	0.05	0.05
Sat Flow, veh/h	1774	5005	211	1774	4178	914	1774	556	1111	507	1331	1583
Grp Volume(v), veh/h	777	869	468	11	452	233	174	0	33	58	0	46
Grp Sat Flow(s),veh/h/ln	1774	1695	1826	1774	1695	1701	1774	0	1667	1837	0	1583
Q Serve(g_s), s	41.8	16.7	16.7	0.5	12.2	12.5	9.5	0.0	1.8	3.1	0.0	2.8
Cycle Q Clear(g_c), s	41.8	16.7	16.7	0.5	12.2	12.5	9.5	0.0	1.8	3.1	0.0	2.8
Prop In Lane	1.00		0.12	1.00		0.54	1.00		0.67	0.28		1.00
Lane Grp Cap(c), veh/h	812	1728	931	246	680	342	215	0	202	89	0	76
V/C Ratio(X)	0.96	0.50	0.50	0.04	0.66	0.68	0.81	0.00	0.16	0.65	0.00	0.60
Avail Cap(c_a), veh/h	878	2327	1253	246	821	412	537	0	505	93	0	80
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	25.9	16.0	16.0	37.0	36.5	36.7	42.4	0.0	39.0	46.3	0.0	46.2
Incr Delay (d2), s/veh	19.8	0.8	1.5	0.1	4.1	8.7	7.0	0.0	0.4	14.5	0.0	11.2
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	24.8	8.0	8.8	0.3	6.1	6.7	5.1	0.0	0.8	1.9	0.0	1.5
LnGrp Delay(d),s/veh	45.7	16.8	17.5	37.0	40.6	45.3	49.4	0.0	39.4	60.8	0.0	57.4
LnGrp LOS	D	B	B	D	D	D	D		D	E		E
Approach Vol, veh/h		2114			696			207			104	
Approach Delay, s/veh		27.6			42.1			47.8			59.3	
Approach LOS		C			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.7	55.5		16.0	49.4	24.9		8.8
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 68		30.0	49.0	24.0		5.0
Max Q Clear Time (g_c+I1), s	2.5	18.7		11.5	43.8	14.5		5.1
Green Ext Time (p_c), s	1.6	31.8		0.6	1.5	5.3		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		33.2
HCM 2010 LOS		C

Notes

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	33	93	860	2103	37
Future Vol, veh/h	13	33	93	860	2103	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	0	160	-	-	-
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	14	36	101	935	2286	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2976	1163	2326	0	-	0
Stage 1	2306	-	-	-	-	-
Stage 2	670	-	-	-	-	-
Critical Hdwy	6.29	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	17	161	~ 85	-	-	-
Stage 1	36	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	0	161	~ 85	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	36	-	-	-	-	-
Stage 2	0	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s		24	0
HCM LOS	-		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	~ 85	-	-	161	-	-
HCM Lane V/C Ratio	1.189	-	-	0.223	-	-
HCM Control Delay (s)	246.4	-	-	33.7	-	-
HCM Lane LOS	F	-	-	D	-	-
HCM 95th %tile Q(veh)	7.2	-	-	0.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	210	965	430	400	0	475	0	85	5	0	5
Future Volume (veh/h)	0	210	965	430	400	0	475	0	85	5	0	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1681	1810	1776	1681	1900	1743	1827	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	233	0	478	444	0	528	0	94	6	0	6
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	13	5	7	13	13	9	0	0	0	0	0
Cap, veh/h	2	318	291	501	885	0	562	0	525	25	0	22
Arrive On Green	0.00	0.19	0.00	0.30	0.53	0.00	0.34	0.00	0.34	0.01	0.00	0.01
Sat Flow, veh/h	1810	1681	1538	1691	1681	0	1660	0	1553	1810	0	1615
Grp Volume(v), veh/h	0	233	0	478	444	0	528	0	94	6	0	6
Grp Sat Flow(s),veh/h/ln	1810	1681	1538	1691	1681	0	1660	0	1553	1810	0	1615
Q Serve(g_s), s	0.0	14.5	0.0	30.8	18.9	0.0	34.3	0.0	4.7	0.4	0.0	0.4
Cycle Q Clear(g_c), s	0.0	14.5	0.0	30.8	18.9	0.0	34.3	0.0	4.7	0.4	0.0	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	2	318	291	501	885	0	562	0	525	25	0	22
V/C Ratio(X)	0.00	0.73	0.00	0.95	0.50	0.00	0.94	0.00	0.18	0.24	0.00	0.27
Avail Cap(c_a), veh/h	81	628	574	510	1059	0	627	0	587	81	0	73
HCM Platoon Ratio	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	42.4	0.0	38.3	16.9	0.0	35.7	0.0	25.9	54.2	0.0	54.2
Incr Delay (d2), s/veh	0.0	3.3	0.0	28.2	0.4	0.0	21.2	0.0	0.2	4.8	0.0	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	0.0	7.0	0.0	18.3	8.9	0.0	19.0	0.0	2.1	0.2	0.0	0.2
LnGrp Delay(d),s/veh	0.0	45.6	0.0	66.6	17.4	0.0	56.8	0.0	26.1	59.0	0.0	60.4
LnGrp LOS		D		E	B		E		C	E		E
Approach Vol, veh/h		233			922			622			12	
Approach Delay, s/veh		45.6			42.9			52.2			59.7	
Approach LOS		D			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		42.1	37.4	25.5		6.0	0.0	63.0
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		42.0	33.5	41.5		5.0	5.0	70.0
Max Q Clear Time (g_c+I1), s		36.3	32.8	16.5		2.4	0.0	20.9
Green Ext Time (p_c), s		1.3	0.1	4.5		0.0	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.6
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	5	195	580	10	275	1865
Future Volume (veh/h)	5	195	580	10	275	1865
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1746	1900	1881	1845
Adj Flow Rate, veh/h	5	214	637	11	302	2049
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	9	9	1	3
Cap, veh/h	6	258	1473	25	352	2468
Arrive On Green	0.16	0.16	0.44	0.44	0.20	0.70
Sat Flow, veh/h	37	1576	3423	58	1792	3597
Grp Volume(v), veh/h	220	0	317	331	302	2049
Grp Sat Flow(s),veh/h/ln	1620	0	1658	1735	1792	1752
Q Serve(g_s), s	9.0	0.0	9.0	9.0	11.1	28.4
Cycle Q Clear(g_c), s	9.0	0.0	9.0	9.0	11.1	28.4
Prop In Lane	0.02	0.97		0.03	1.00	
Lane Grp Cap(c), veh/h	265	0	732	766	352	2468
V/C Ratio(X)	0.83	0.00	0.43	0.43	0.86	0.83
Avail Cap(c_a), veh/h	428	0	732	766	444	2468
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	27.6	0.0	13.1	13.1	26.5	7.2
Incr Delay (d2), s/veh	7.2	0.0	1.9	1.8	12.8	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	4.4	4.6	6.7	14.5
LnGrp Delay(d),s/veh	34.7	0.0	15.0	14.9	39.2	10.6
LnGrp LOS	C		B	B	D	B
Approach Vol, veh/h	220		648			2351
Approach Delay, s/veh	34.7		15.0			14.3
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.9	34.6				52.5		15.7
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	16.9	26.6				48.0		18.0
Max Q Clear Time (g_c+I1), s	13.1	11.0				30.4		11.0
Green Ext Time (p_c), s	0.3	14.1				15.8		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	81.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	0	135	5	225	0	645	10	30	1760	5
Future Vol, veh/h	5	0	0	135	5	225	0	645	10	30	1760	5
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	-	-	30	-	-	30	105	-	-	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	6	0	0	159	6	265	0	759	12	35	2071	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2526	2915	1038	1871	2912	385	2076	0	0	771	0	0
Stage 1	2144	2144	-	765	765	-	-	-	-	-	-	-
Stage 2	382	771	-	1106	2147	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	14	16	231	~ 45	16	619	272	-	-	853	-	-
Stage 1	51	89	-	366	415	-	-	-	-	-	-	-
Stage 2	618	413	-	228	89	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 5	15	231	~ 44	15	619	272	-	-	853	-	-
Mov Cap-2 Maneuver	~ 5	15	-	~ 44	15	-	-	-	-	-	-	-
Stage 1	51	85	-	366	415	-	-	-	-	-	-	-
Stage 2	349	413	-	219	85	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, $	1383.4	$ 607.2	0	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	272	-	-	5	-	41	619	853	-	-
HCM Lane V/C Ratio	-	-	-	1.176	-	4.017	0.428	0.041	-	-
HCM Control Delay (s)	0	-	-	$ 1383.4	-	$ 1558.8	15.1	9.4	-	-
HCM Lane LOS	A	-	-	F	A	F	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.5	-	18.8	2.1	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	15	115	105	40	15	125	205	30	10	625	270
Future Volume (veh/h)	80	15	115	105	40	15	125	205	30	10	625	270
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1813	1792	1900	1900	1900	1810	1768	1900	1900	1845	1759
Adj Flow Rate, veh/h	99	19	142	130	49	19	154	253	37	12	772	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	9	9	6	0	0	0	5	8	8	0	3	8
Cap, veh/h	171	33	179	156	59	23	183	836	122	26	853	691
Arrive On Green	0.12	0.12	0.12	0.13	0.13	0.13	0.11	0.55	0.55	0.01	0.46	0.00
Sat Flow, veh/h	1460	280	1524	1188	448	174	1723	1508	221	1810	1845	1495
Grp Volume(v), veh/h	118	0	142	198	0	0	154	0	290	12	772	0
Grp Sat Flow(s),veh/h/ln	1740	0	1524	1810	0	0	1723	0	1729	1810	1845	1495
Q Serve(g_s), s	6.3	0.0	8.9	10.5	0.0	0.0	8.6	0.0	8.8	0.6	38.1	0.0
Cycle Q Clear(g_c), s	6.3	0.0	8.9	10.5	0.0	0.0	8.6	0.0	8.8	0.6	38.1	0.0
Prop In Lane	0.84		1.00	0.66		0.10	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	204	0	179	237	0	0	183	0	959	26	853	691
V/C Ratio(X)	0.58	0.00	0.80	0.83	0.00	0.00	0.84	0.00	0.30	0.47	0.91	0.00
Avail Cap(c_a), veh/h	318	0	279	331	0	0	184	0	959	92	853	691
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.1	0.0	42.3	41.7	0.0	0.0	43.2	0.0	11.7	48.1	24.5	0.0
Incr Delay (d2), s/veh	2.6	0.0	8.3	12.1	0.0	0.0	27.7	0.0	0.8	12.6	14.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	4.2	6.0	0.0	0.0	5.5	0.0	4.4	0.4	22.8	0.0
LnGrp Delay(d),s/veh	43.7	0.0	50.6	53.8	0.0	0.0	70.9	0.0	12.5	60.7	39.4	0.0
LnGrp LOS	D		D	D			E		B	E	D	
Approach Vol, veh/h		260			198			444			784	
Approach Delay, s/veh		47.5			53.8			32.8			39.7	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	59.1		16.0	15.0	50.0		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	51.0		18.0	10.5	45.5		18.0
Max Q Clear Time (g_c+I1), s	2.6	10.8		10.9	10.6	40.1		12.5
Green Ext Time (p_c), s	0.0	9.5		0.6	0.0	3.2		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	40.7
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	17	338	936	0
Future Vol, veh/h	0	9	17	338	936	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	0	12	23	457	1265	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1768	1265	1265	0	-	0
Stage 1	1265	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	93	209	556	-	-	-
Stage 1	268	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	89	209	556	-	-	-
Mov Cap-2 Maneuver	89	-	-	-	-	-
Stage 1	268	-	-	-	-	-
Stage 2	587	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.3	0.6	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	556	-	209	-	-
HCM Lane V/C Ratio	0.041	-	0.058	-	-
HCM Control Delay (s)	11.8	-	23.3	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	50	95	260	45	185	760
Future Volume (veh/h)	50	95	260	45	185	760
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1832	1900	1810	1827
Adj Flow Rate, veh/h	70	134	366	63	261	1070
Adj No. of Lanes	0	0	1	0	1	1
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Percent Heavy Veh, %	0	0	4	4	5	4
Cap, veh/h	85	163	745	128	305	1330
Arrive On Green	0.15	0.15	0.49	0.49	0.18	0.73
Sat Flow, veh/h	573	1097	1524	262	1723	1827
Grp Volume(v), veh/h	205	0	0	429	261	1070
Grp Sat Flow(s),veh/h/ln	1678	0	0	1786	1723	1827
Q Serve(g_s), s	8.6	0.0	0.0	11.8	10.7	28.0
Cycle Q Clear(g_c), s	8.6	0.0	0.0	11.8	10.7	28.0
Prop In Lane	0.34	0.65		0.15	1.00	
Lane Grp Cap(c), veh/h	249	0	0	873	305	1330
V/C Ratio(X)	0.82	0.00	0.00	0.49	0.85	0.80
Avail Cap(c_a), veh/h	415	0	0	873	391	1330
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	0.0	0.0	12.5	29.0	6.5
Incr Delay (d2), s/veh	6.7	0.0	0.0	2.0	13.7	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	0.0	6.2	6.2	15.6
LnGrp Delay(d),s/veh	36.8	0.0	0.0	14.5	42.8	11.8
LnGrp LOS	D			B	D	B
Approach Vol, veh/h	205		429			1331
Approach Delay, s/veh	36.8		14.5			17.8
Approach LOS	D		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.4	40.1				57.5		15.3
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	16.5	32.0				53.0		18.0
Max Q Clear Time (g_c+I1), s	12.7	13.8				30.0		10.6
Green Ext Time (p_c), s	0.3	11.3				13.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	55.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	55	45	275	160	170	715
Future Vol, veh/h	55	45	275	160	170	715
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	0	0	3	1	0	2
Mvmt Flow	92	75	458	267	283	1192

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2350	592	0	0	725	0
Stage 1	592	-	-	-	-	-
Stage 2	1758	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	~ 40	510	-	-	887	-
Stage 1	557	-	-	-	-	-
Stage 2	154	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 27	510	-	-	887	-
Mov Cap-2 Maneuver	~ 27	-	-	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	105	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 765	0	2.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	27	510	887	-
HCM Lane V/C Ratio	-	-	3.395	0.147	0.319	-
HCM Control Delay (s)	-	-	$ 1380.1	13.3	11	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	11.2	0.5	1.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	249.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	3	127	0	103	3	332	129	109	657	4
Future Vol, veh/h	0	0	3	127	0	103	3	332	129	109	657	4
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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	2	0
Mvmt Flow	0	0	4	187	0	151	4	488	190	160	966	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1958	1977	969	1884	1885	583	972	0	0	678	0	0
Stage 1	1290	1290	-	592	592	-	-	-	-	-	-	-
Stage 2	668	687	-	1292	1293	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	48	63	310	~ 55	71	516	717	-	-	923	-	-
Stage 1	203	236	-	496	497	-	-	-	-	-	-	-
Stage 2	451	450	-	202	235	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	29	52	310	~ 47	58	516	717	-	-	923	-	-
Mov Cap-2 Maneuver	29	52	-	~ 47	58	-	-	-	-	-	-	-
Stage 1	202	195	-	493	494	-	-	-	-	-	-	-
Stage 2	317	447	-	~ 165	194	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.8	$ 1584.5	0.1	1.4
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	717	-	-	310	79	923	-	-
HCM Lane V/C Ratio	0.006	-	-	0.014	4.281	0.174	-	-
HCM Control Delay (s)	10.1	-	-	16.8	$ 1584.5	9.7	-	-
HCM Lane LOS	B	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	35.9	0.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	24.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	161	60	404	304	111	676
Future Vol, veh/h	161	60	404	304	111	676
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	3	1	1	2
Mvmt Flow	218	81	546	411	150	914

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1965	751	0	0	957	0
Stage 1	751	-	-	-	-	-
Stage 2	1214	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	~ 70	414	-	-	723	-
Stage 1	470	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 55	414	-	-	723	-
Mov Cap-2 Maneuver	~ 160	-	-	-	-	-
Stage 1	470	-	-	-	-	-
Stage 2	225	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	187.1	0	1.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	160	414	723	-
HCM Lane V/C Ratio	-	-	1.36	0.196	0.207	-
HCM Control Delay (s)	-	-	251	15.8	11.3	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	13.3	0.7	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	37	55	707	843	0
Future Vol, veh/h	1	37	55	707	843	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	19	9	3	3	0
Mvmt Flow	1	50	74	955	1139	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2243	1139	1139	0	-	0
Stage 1	1139	-	-	-	-	-
Stage 2	1104	-	-	-	-	-
Critical Hdwy	6.4	6.39	4.19	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.471	2.281	-	-	-
Pot Cap-1 Maneuver	47	226	589	-	-	-
Stage 1	308	-	-	-	-	-
Stage 2	320	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	41	226	589	-	-	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	308	-	-	-	-	-
Stage 2	280	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.9	0.9	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	589	-	223	-	-
HCM Lane V/C Ratio	0.126	-	0.23	-	-
HCM Control Delay (s)	12	-	25.9	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	-	-

Intersection	
Int Delay, s/veh	35.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	220	5	0	10	85	870	5	25	1085	15
Future Vol, veh/h	0	0	220	5	0	10	85	870	5	25	1085	15
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	2	0	0	7	3	4	0	0	6	20
Mvmt Flow	0	0	232	5	0	11	89	916	5	26	1142	16

Major/Minor	Minor2		Minor1			Major1				Major2		
Conflicting Flow All	-	-	1142	2292	2292	918	1142	0	0	921	0	0
Stage 1	-	-	-	1097	1097	-	-	-	-	-	-	-
Stage 2	-	-	-	1195	1195	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.1	6.5	6.27	4.13	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.5	4	3.363	2.227	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	244	28	40	322	608	-	-	750	-	-
Stage 1	0	0	-	261	291	-	-	-	-	-	-	-
Stage 2	0	0	-	230	262	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	244	~ 1	33	322	608	-	-	750	-	-
Mov Cap-2 Maneuver	-	-	-	~ 1	33	-	-	-	-	-	-	-
Stage 1	-	-	-	223	248	-	-	-	-	-	-	-
Stage 2	-	-	-	11	253	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	88.5	$ 4103.8	1.1	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	608	-	-	244	3	750	-	-
HCM Lane V/C Ratio	0.147	-	-	0.949	5.263	0.035	-	-
HCM Control Delay (s)	11.9	-	-	88.5	$ 4103.8	10	-	-
HCM Lane LOS	B	-	-	F	F	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	8.6	3.4	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	240	490	80	70	40	410	385	320	65	265	65
Future Volume (veh/h)	90	240	490	80	70	40	410	385	320	65	265	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1827	1845	1827	1817	1900	1759	1845	1845	1863	1823	1900
Adj Flow Rate, veh/h	101	270	551	90	79	45	461	433	360	73	298	73
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	4	3	4	6	6	8	3	3	2	5	5
Cap, veh/h	458	486	408	197	122	70	493	742	622	94	427	102
Arrive On Green	0.27	0.27	0.27	0.11	0.11	0.11	0.29	0.40	0.40	0.05	0.16	0.16
Sat Flow, veh/h	1723	1827	1534	1740	1079	614	1675	1845	1547	1774	2737	656
Grp Volume(v), veh/h	101	270	551	90	0	124	461	433	360	73	186	185
Grp Sat Flow(s),veh/h/ln	1723	1827	1534	1740	0	1693	1675	1845	1547	1774	1732	1661
Q Serve(g_s), s	4.8	13.4	28.0	5.1	0.0	7.4	28.2	19.3	19.1	4.3	10.7	11.1
Cycle Q Clear(g_c), s	4.8	13.4	28.0	5.1	0.0	7.4	28.2	19.3	19.1	4.3	10.7	11.1
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	458	486	408	197	0	192	493	742	622	94	270	259
V/C Ratio(X)	0.22	0.56	1.35	0.46	0.00	0.65	0.93	0.58	0.58	0.78	0.69	0.71
Avail Cap(c_a), veh/h	458	486	408	463	0	450	565	797	668	185	337	323
HCM Platoon Ratio	1.00	1.00	1.00	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	30.2	33.3	38.7	43.7	0.0	44.7	36.2	24.6	24.5	49.3	42.1	42.2
Incr Delay (d2), s/veh	0.1	0.8	173.5	0.6	0.0	1.4	21.5	0.5	0.6	5.2	2.6	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	2.3	6.9	31.5	2.5	0.0	3.5	16.0	10.0	8.2	2.2	5.3	5.4
LnGrp Delay(d),s/veh	30.2	34.2	212.2	44.3	0.0	46.1	57.7	25.1	25.1	54.5	44.6	45.8
LnGrp LOS	C	C	F	D		D	E	C	C	D	D	D
Approach Vol, veh/h		922			214			1254			444	
Approach Delay, s/veh		140.1			45.3			37.1			46.7	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.6	47.9		32.0	35.5	21.9		15.9
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	11.0	45.5		28.0	35.5	20.5		28.0
Max Q Clear Time (g_c+I1), s	6.3	21.3		30.0	30.2	13.1		9.4
Green Ext Time (p_c), s	0.0	4.1		0.0	0.8	2.6		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	72.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	30	20	65	10	460	20	755	105	555	675	15
Future Volume (veh/h)	15	30	20	65	10	460	20	755	105	555	675	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1837	1845	1900	1845	1827	1863	1864	1900
Adj Flow Rate, veh/h	16	32	21	69	11	489	21	803	112	590	718	16
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	3	0	3	4	2	2	2
Cap, veh/h	42	74	37	145	20	734	26	821	685	597	1392	31
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.01	0.44	0.44	0.34	0.77	0.77
Sat Flow, veh/h	76	561	279	734	149	1556	1810	1845	1539	1774	1815	40
Grp Volume(v), veh/h	69	0	0	80	0	489	21	803	112	590	0	734
Grp Sat Flow(s),veh/h/ln	916	0	0	883	0	1556	1810	1845	1539	1774	0	1855
Q Serve(g_s), s	0.4	0.0	0.0	0.0	0.0	18.5	1.6	59.7	6.1	46.1	0.0	21.3
Cycle Q Clear(g_c), s	14.7	0.0	0.0	14.5	0.0	18.5	1.6	59.7	6.1	46.1	0.0	21.3
Prop In Lane	0.23		0.30	0.86		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	153	0	0	165	0	734	26	821	685	597	0	1423
V/C Ratio(X)	0.45	0.00	0.00	0.48	0.00	0.67	0.80	0.98	0.16	0.99	0.00	0.52
Avail Cap(c_a), veh/h	153	0	0	165	0	734	75	826	689	597	0	1423
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.9	0.0	0.0	58.6	0.0	28.7	68.6	38.1	23.2	46.0	0.0	6.3
Incr Delay (d2), s/veh	2.1	0.0	0.0	2.2	0.0	2.3	18.7	25.9	0.1	33.6	0.0	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	2.5	0.0	0.0	3.1	0.0	15.0	0.9	36.3	2.6	28.2	0.0	10.9
LnGrp Delay(d),s/veh	56.9	0.0	0.0	60.8	0.0	31.0	87.3	64.0	23.3	79.6	0.0	6.6
LnGrp LOS	E			E		C	F	E	C	E		A
Approach Vol, veh/h		69			569			936			1324	
Approach Delay, s/veh		56.9			35.2			59.7			39.1	
Approach LOS		E			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	51.0	66.1		22.5	6.0	111.1		22.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	47.0	62.5		18.5	5.8	103.7		18.5
Max Q Clear Time (g_c+I1), s	48.1	61.7		16.7	3.6	23.3		20.5
Green Ext Time (p_c), s	0.0	0.4		0.6	0.0	20.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	35	60	85	50	75	215	805	155	50	205	575
Future Volume (veh/h)	70	35	60	85	50	75	215	805	155	50	205	575
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1881	1877	1900	1827	1850	1900	1900	1845	1863
Adj Flow Rate, veh/h	74	37	64	90	53	80	229	856	165	53	218	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	0	0	4	3	3	0	3	2
Cap, veh/h	136	68	183	214	81	122	287	1217	235	96	557	478
Arrive On Green	0.11	0.11	0.11	0.12	0.12	0.12	0.16	0.41	0.41	0.05	0.30	0.00
Sat Flow, veh/h	1202	601	1615	1792	676	1021	1740	2941	567	1810	1845	1583
Grp Volume(v), veh/h	111	0	64	90	0	133	229	512	509	53	218	0
Grp Sat Flow(s),veh/h/ln	1803	0	1615	1792	0	1697	1740	1758	1750	1810	1845	1583
Q Serve(g_s), s	2.8	0.0	1.7	2.2	0.0	3.6	6.0	11.5	11.5	1.4	4.5	0.0
Cycle Q Clear(g_c), s	2.8	0.0	1.7	2.2	0.0	3.6	6.0	11.5	11.5	1.4	4.5	0.0
Prop In Lane	0.67		1.00	1.00		0.60	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	205	0	183	214	0	203	287	727	724	96	557	478
V/C Ratio(X)	0.54	0.00	0.35	0.42	0.00	0.66	0.80	0.70	0.70	0.55	0.39	0.00
Avail Cap(c_a), veh/h	965	0	865	692	0	656	713	1300	1294	251	864	742
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	19.9	0.0	19.5	19.4	0.0	20.0	19.1	11.5	11.5	22.0	13.2	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.4	0.5	0.0	1.3	2.0	0.7	0.7	1.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.8	1.1	0.0	1.7	3.0	5.7	5.7	0.7	2.3	0.0
LnGrp Delay(d),s/veh	20.8	0.0	19.9	19.9	0.0	21.4	21.1	12.2	12.2	23.8	13.4	0.0
LnGrp LOS	C		B	B		C	C	B	B	C	B	
Approach Vol, veh/h		175			223			1250			271	
Approach Delay, s/veh		20.4			20.8			13.8			15.4	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.5	23.4		8.9	10.8	18.1		9.8
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	6.6	35.2		25.5	19.5	22.3		18.4
Max Q Clear Time (g_c+I1), s	3.4	13.5		4.8	8.0	6.5		5.6
Green Ext Time (p_c), s	0.0	6.2		0.4	0.2	5.5		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	379.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	305	530	645	325	100	250
Future Vol, veh/h	305	530	645	325	100	250
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	93	93	93	93	93	93
Heavy Vehicles, %	1	3	3	2	4	1
Mvmt Flow	328	570	694	349	108	269

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1178	694	0	0	694	0
Stage 1	694	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Critical Hdwy	6.41	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	~ 212	~ 441	-	-	892	-
Stage 1	498	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 182	~ 441	-	-	892	-
Mov Cap-2 Maneuver	~ 182	-	-	-	-	-
Stage 1	498	-	-	-	-	-
Stage 2	534	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 978.6	0	2.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	290	892	-
HCM Lane V/C Ratio	-	-	3.096	0.121	-
HCM Control Delay (s)	-	-	$ 978.6	9.6	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	80.2	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

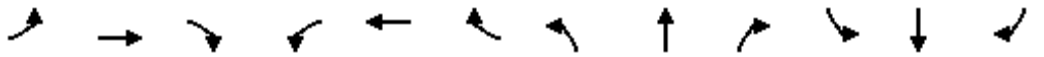
Intersection	
Int Delay, s/veh	4.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	585	60	55	180	35	155
Future Vol, veh/h	585	60	55	180	35	155
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, %	1	3	2	6	5	4
Mvmt Flow	636	65	60	196	38	168

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	701	0	983	668
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	315	-
Critical Hdwy	-	-	4.12	-	6.45	6.24
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.336
Pot Cap-1 Maneuver	-	-	896	-	272	455
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	733	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	896	-	252	455
Mov Cap-2 Maneuver	-	-	-	-	252	-
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	678	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	23.6
HCM LOS			C

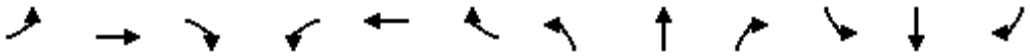
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	396	-	-	896	-
HCM Lane V/C Ratio	0.522	-	-	0.067	-
HCM Control Delay (s)	23.6	-	-	9.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.9	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	320	240	495	190	70	130	1470	550	35	940	70
Future Volume (veh/h)	135	320	240	495	190	70	130	1470	550	35	940	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1827	1845	1845	1863	1810	1810	1881	1845	1743	1863	1810
Adj Flow Rate, veh/h	147	348	261	538	207	76	141	1598	598	38	1022	76
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	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
Percent Heavy Veh, %	1	4	3	3	2	5	5	1	3	9	2	5
Cap, veh/h	174	349	299	550	475	387	165	1657	980	47	1402	759
Arrive On Green	0.10	0.19	0.19	0.16	0.25	0.25	0.10	0.46	0.46	0.03	0.40	0.40
Sat Flow, veh/h	1792	1827	1568	3408	1863	1518	1723	3574	1568	1660	3539	1538
Grp Volume(v), veh/h	147	348	261	538	207	76	141	1598	598	38	1022	76
Grp Sat Flow(s),veh/h/ln	1792	1827	1568	1704	1863	1518	1723	1787	1568	1660	1770	1538
Q Serve(g_s), s	10.4	24.4	20.7	20.2	12.0	5.0	10.3	55.7	29.7	2.9	31.5	3.4
Cycle Q Clear(g_c), s	10.4	24.4	20.7	20.2	12.0	5.0	10.3	55.7	29.7	2.9	31.5	3.4
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	174	349	299	550	475	387	165	1657	980	47	1402	759
V/C Ratio(X)	0.84	1.00	0.87	0.98	0.44	0.20	0.85	0.96	0.61	0.80	0.73	0.10
Avail Cap(c_a), veh/h	262	349	299	550	475	387	195	1665	983	65	1402	759
HCM Platoon Ratio	1.00	1.00	1.00	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	57.0	51.9	50.4	53.6	40.1	37.5	57.1	33.4	14.6	62.0	32.9	17.3
Incr Delay (d2), s/veh	14.4	47.7	24.8	32.9	1.3	0.5	25.7	14.7	1.6	38.6	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	16.9	11.0	12.0	6.3	2.2	6.1	30.7	13.3	1.8	15.8	1.5
LnGrp Delay(d),s/veh	71.4	99.6	75.2	86.6	41.4	38.0	82.8	48.0	16.2	100.6	35.3	17.5
LnGrp LOS	E	F	E	F	D	D	F	D	B	F	D	B
Approach Vol, veh/h		756			821			2337			1136	
Approach Delay, s/veh		85.7			70.7			42.0			36.3	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	65.0	25.2	30.0	16.8	56.4	17.0	38.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	59.8	20.7	24.5	14.5	50.3	18.8	26.4
Max Q Clear Time (g_c+I1), s	4.9	57.7	22.2	26.4	12.3	33.5	12.4	14.0
Green Ext Time (p_c), s	0.0	1.9	0.0	0.0	0.1	16.7	0.2	6.4

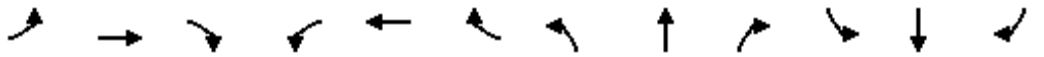
Intersection Summary	
HCM 2010 Ctrl Delay	51.9
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	545	105	0	130	0	2045	375	315	1245	115
Future Volume (vph)	0	0	545	105	0	130	0	2045	375	315	1245	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95		1.00	0.91	
Frpb, ped/bikes			0.99	1.00		1.00		1.00		1.00	1.00	
Flpb, ped/bikes			1.00	0.99		1.00		1.00		1.00	1.00	
Frt			0.86	1.00		0.85		0.98		1.00	0.99	
Flt Protected			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)			1603	1759		1553		3467		1787	5029	
Flt Permitted			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (perm)			1603	1759		1553		3467		1787	5029	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	568	109	0	135	0	2130	391	328	1297	120
RTOR Reduction (vph)	0	0	77	0	0	105	0	10	0	0	7	0
Lane Group Flow (vph)	0	0	491	109	0	30	0	2511	0	328	1410	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Perm		Perm		NA		Prot	NA	
Protected Phases								6		5	2	
Permitted Phases			4	8		8						
Actuated Green, G (s)			33.0	33.0		33.0		82.5		21.0	107.5	
Effective Green, g (s)			33.0	33.0		33.0		82.5		21.0	107.5	
Actuated g/C Ratio			0.22	0.22		0.22		0.55		0.14	0.72	
Clearance Time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Vehicle Extension (s)			3.0	4.0		4.0		4.0		0.5	4.0	
Lane Grp Cap (vph)			352	386		341		1906		250	3604	
v/s Ratio Prot								c0.72		c0.18	0.28	
v/s Ratio Perm			c0.31	0.06		0.02						
v/c Ratio			1.39	0.28		0.09		1.32		1.31	0.39	
Uniform Delay, d1			58.5	48.7		46.5		33.8		64.5	8.4	
Progression Factor			1.00	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2			194.0	0.5		0.2		146.7		166.0	0.1	
Delay (s)			252.5	49.2		46.7		180.4		230.5	8.5	
Level of Service			F	D		D		F		F	A	
Approach Delay (s)		252.5			47.8			180.4			50.2	
Approach LOS		F			D			F			D	

Intersection Summary			
HCM 2000 Control Delay	137.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	103.0%	ICU Level of Service	G
Analysis Period (min)	15		

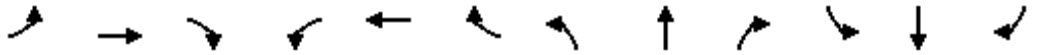
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	415	25	285	120	30	90	220	1865	55	100	1560	185
Future Volume (veh/h)	415	25	285	120	30	90	220	1865	55	100	1560	185
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1863	1863	1863	1881
Adj Flow Rate, veh/h	441	27	303	128	32	96	234	1984	59	106	1660	197
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	1
Cap, veh/h	372	380	569	154	165	138	259	1820	813	98	2132	661
Arrive On Green	0.21	0.21	0.21	0.09	0.09	0.09	0.15	0.51	0.51	0.06	0.42	0.42
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	3539	1582	1774	5085	1577
Grp Volume(v), veh/h	441	27	303	128	32	96	234	1984	59	106	1660	197
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1770	1582	1774	1695	1577
Q Serve(g_s), s	26.0	1.5	12.5	9.1	2.1	7.7	16.9	65.0	2.4	7.0	35.6	10.5
Cycle Q Clear(g_c), s	26.0	1.5	12.5	9.1	2.1	7.7	16.9	65.0	2.4	7.0	35.6	10.5
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	372	380	569	154	165	138	259	1820	813	98	2132	661
V/C Ratio(X)	1.18	0.07	0.53	0.83	0.19	0.70	0.90	1.09	0.07	1.08	0.78	0.30
Avail Cap(c_a), veh/h	372	538	804	261	434	362	282	1820	813	98	2132	661
HCM Platoon Ratio	1.00	1.00	1.00	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	50.2	40.2	44.6	56.7	53.2	55.8	52.8	30.7	15.5	59.7	31.6	24.4
Incr Delay (d2), s/veh	107.2	0.1	0.8	10.7	0.6	6.3	28.7	50.2	0.1	113.8	2.2	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	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.0	0.8	4.8	4.9	1.1	3.5	10.1	44.3	1.1	6.5	17.0	4.7
LnGrp Delay(d),s/veh	157.5	40.3	45.4	67.4	53.8	62.1	81.5	80.9	15.6	173.7	33.9	24.9
LnGrp LOS	F	D	D	E	D	E	F	F	B	F	C	C
Approach Vol, veh/h		771			256			2277			1963	
Approach Delay, s/veh		109.3			63.7			79.3			40.5	
Approach LOS		F			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	70.0	15.1	30.3	23.0	58.0	30.0	15.4
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	65.0	18.8	37.2	20.7	51.3	26.0	30.0
Max Q Clear Time (g_c+I1), s	9.0	67.0	11.1	14.5	18.9	37.6	28.0	9.7
Green Ext Time (p_c), s	0.0	0.0	0.2	1.8	0.1	13.7	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	68.5
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	0	120	1035	70	240	305	1835	255	0	1930	35
Future Volume (veh/h)	35	0	120	1035	70	240	305	1835	255	0	1930	35
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1863	1845	1832	1810	1881	1845	1863	0	1792	1881
Adj Flow Rate, veh/h	37	0	128	1101	210	164	324	1952	271	0	2053	37
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	3	2	5	1	3	2	0	6	1
Cap, veh/h	49	0	0	1146	482	405	285	2995	942	0	1966	642
Arrive On Green	0.03	0.00	0.00	0.33	0.26	0.26	0.32	1.00	1.00	0.00	0.40	0.40
Sat Flow, veh/h	1810	37		3514	1832	1538	1792	5036	1583	0	5055	1599
Grp Volume(v), veh/h	37	87.5		1101	210	164	324	1952	271	0	2053	37
Grp Sat Flow(s),veh/h/ln	1810	F		1757	1832	1538	1792	1679	1583	0	1631	1599
Q Serve(g_s), s	2.8			43.1	13.4	12.3	22.3	0.0	0.0	0.0	56.3	2.0
Cycle Q Clear(g_c), s	2.8			43.1	13.4	12.3	22.3	0.0	0.0	0.0	56.3	2.0
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	49			1146	482	405	285	2995	942	0	1966	642
V/C Ratio(X)	0.75			0.96	0.44	0.41	1.14	0.65	0.29	0.00	1.04	0.06
Avail Cap(c_a), veh/h	65			1230	510	428	285	2995	942	0	1966	642
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	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	0.62	0.62
Uniform Delay (d), s/veh	67.6			46.3	42.9	42.5	47.7	0.0	0.0	0.0	41.9	25.6
Incr Delay (d2), s/veh	19.9			16.2	0.2	0.2	94.9	1.1	0.8	0.0	29.1	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
%ile BackOfQ(50%),veh/ln	1.7			23.5	6.8	5.3	18.5	0.3	0.2	0.0	30.6	0.9
LnGrp Delay(d),s/veh	87.5			62.5	43.2	42.8	142.6	1.1	0.8	0.0	71.0	25.7
LnGrp LOS	F			E	D	D	F	A	A		F	C
Approach Vol, veh/h					1475			2547			2090	
Approach Delay, s/veh					57.6			19.1			70.2	
Approach LOS					E			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		89.5	50.5		27.0	62.5	8.4	42.1
Change Period (Y+Rc), s		6.2	4.9		* 4.7	6.2	4.6	5.3
Max Green Setting (Gmax), s		79.9	49.0		* 22	52.9	5.0	39.0
Max Q Clear Time (g_c+I1), s		2.0	45.1		24.3	58.3	4.8	15.4
Green Ext Time (p_c), s		35.2	0.6		0.0	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	46.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	520	180	100	125	0	310	0	2430	160	270	1525	360
Future Volume (veh/h)	520	180	100	125	0	310	0	2430	160	270	1525	360
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1881	0	1881	0	1827	1900	1881	1845	1881
Adj Flow Rate, veh/h	547	189	105	132	0	326	0	2558	168	284	1605	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	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	0	2	1	0	1	0	4	0	1	3	1
Cap, veh/h	664	299	131	138	0	0	0	2478	637	1013	2558	1167
Arrive On Green	0.19	0.08	0.08	0.08	0.00	0.00	0.00	0.39	0.39	0.29	0.73	0.00
Sat Flow, veh/h	3442	3610	1583	1792	132		0	6540	1615	3476	3505	1599
Grp Volume(v), veh/h	547	189	105	132	126.6		0	2558	168	284	1605	0
Grp Sat Flow(s),veh/h/ln	1721	1805	1583	1792	F		0	1571	1615	1738	1752	1599
Q Serve(g_s), s	21.4	7.1	9.1	10.3			0.0	55.2	7.3	8.8	31.9	0.0
Cycle Q Clear(g_c), s	21.4	7.1	9.1	10.3			0.0	55.2	7.3	8.8	31.9	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	664	299	131	138			0	2478	637	1013	2558	1167
V/C Ratio(X)	0.82	0.63	0.80	0.96			0.00	1.03	0.26	0.28	0.63	0.00
Avail Cap(c_a), veh/h	762	1083	475	138			0	2478	637	1013	2558	1167
HCM Platoon Ratio	1.00	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	0.77	0.77	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.2	62.1	63.1	64.4			0.0	42.4	15.9	38.3	9.4	0.0
Incr Delay (d2), s/veh	6.2	0.8	4.2	62.3			0.0	25.0	0.8	0.1	1.2	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
%ile BackOfQ(50%),veh/ln	10.8	3.6	4.1	7.5			0.0	28.2	3.4	4.3	15.8	0.0
LnGrp Delay(d),s/veh	60.4	62.9	67.2	126.6			0.0	67.4	16.7	38.3	10.6	0.0
LnGrp LOS	E	E	E	F				F	B	D	B	
Approach Vol, veh/h		841						2726			1889	
Approach Delay, s/veh		61.8						64.2			14.8	
Approach LOS		E						E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	47.0	61.4	15.4	16.2		108.4	31.6	
Change Period (Y+Rc), s	6.2	* 6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	12.0	* 55	10.8	42.0		71.8	31.0	
Max Q Clear Time (g_c+I1), s	10.8	57.2	12.3	11.1		33.9	23.4	
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5		6.3	1.1	

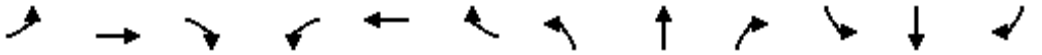
Intersection Summary	
HCM 2010 Ctrl Delay	48.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	10	65	25	5	75	55	2360	65	0	1560	190
Future Volume (veh/h)	155	10	65	25	5	75	55	2360	65	0	1560	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1894	1881	1863	1863	1900	0	1863	1863
Adj Flow Rate, veh/h	168	11	71	27	5	82	60	2565	71	0	1696	207
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	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
Percent Heavy Veh, %	2	2	2	2	2	1	2	2	2	0	2	2
Cap, veh/h	204	25	161	105	19	110	77	4481	124	0	2157	965
Arrive On Green	0.11	0.11	0.11	0.07	0.07	0.07	0.04	0.69	0.69	0.00	0.61	0.61
Sat Flow, veh/h	1774	217	1399	1533	284	1599	1774	6458	178	0	3632	1583
Grp Volume(v), veh/h	168	0	82	32	0	82	60	1908	728	0	1696	207
Grp Sat Flow(s),veh/h/ln	1774	0	1616	1817	0	1599	1774	1602	1831	0	1770	1583
Q Serve(g_s), s	10.2	0.0	5.2	1.8	0.0	5.5	3.7	22.2	22.2	0.0	39.5	6.5
Cycle Q Clear(g_c), s	10.2	0.0	5.2	1.8	0.0	5.5	3.7	22.2	22.2	0.0	39.5	6.5
Prop In Lane	1.00		0.87	0.84		1.00	1.00		0.10	0.00		1.00
Lane Grp Cap(c), veh/h	204	0	186	125	0	110	77	3335	1271	0	2157	965
V/C Ratio(X)	0.82	0.00	0.44	0.26	0.00	0.75	0.78	0.57	0.57	0.00	0.79	0.21
Avail Cap(c_a), veh/h	290	0	264	297	0	262	81	3335	1271	0	2157	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	0.10	0.10	0.10	0.00	0.72	0.72
Uniform Delay (d), s/veh	47.6	0.0	45.4	48.6	0.0	50.3	52.1	8.5	8.6	0.0	16.1	9.6
Incr Delay (d2), s/veh	12.2	0.0	1.6	1.1	0.0	9.7	4.6	0.1	0.2	0.0	2.2	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	5.7	0.0	2.4	1.0	0.0	2.7	1.9	9.7	11.2	0.0	19.7	2.9
LnGrp Delay(d),s/veh	59.8	0.0	47.0	49.7	0.0	60.0	56.7	8.6	8.7	0.0	18.3	10.0
LnGrp LOS	E		D	D		E	E	A	A		B	B
Approach Vol, veh/h		250			114			2696			1903	
Approach Delay, s/veh		55.6			57.1			9.7			17.4	
Approach LOS		E			E			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		80.8		17.1	9.3	71.6		12.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		60.5		18.0	5.0	51.0		18.0
Max Q Clear Time (g_c+I1), s		24.2		12.2	5.7	41.5		7.5
Green Ext Time (p_c), s		35.5		0.5	0.0	9.4		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	55	485	155	100	15	295	2260	185	100	1445	105
Future Volume (veh/h)	205	55	485	155	100	15	295	2260	185	100	1445	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1776	1900	1900	1900	1863	1863	1696	1881	1900
Adj Flow Rate, veh/h	223	60	527	168	109	16	321	2457	201	109	1571	114
Adj No. of Lanes	1	1	1	2	1	1	1	3	1	1	2	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
Percent Heavy Veh, %	0	0	0	7	0	0	0	2	2	12	1	0
Cap, veh/h	187	522	444	203	443	377	271	2360	734	109	1363	615
Arrive On Green	0.10	0.27	0.27	0.06	0.23	0.23	0.15	0.46	0.46	0.07	0.38	0.38
Sat Flow, veh/h	1810	1900	1615	3281	1900	1615	1810	5085	1582	1616	3574	1614
Grp Volume(v), veh/h	223	60	527	168	109	16	321	2457	201	109	1571	114
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1640	1900	1615	1810	1695	1582	1616	1787	1614
Q Serve(g_s), s	15.5	3.5	41.2	7.6	7.0	1.2	22.5	69.6	11.7	10.1	57.2	7.1
Cycle Q Clear(g_c), s	15.5	3.5	41.2	7.6	7.0	1.2	22.5	69.6	11.7	10.1	57.2	7.1
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	187	522	444	203	443	377	271	2360	734	109	1363	615
V/C Ratio(X)	1.19	0.11	1.19	0.83	0.25	0.04	1.18	1.04	0.27	1.00	1.15	0.19
Avail Cap(c_a), veh/h	187	522	444	203	443	377	271	2360	734	109	1363	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	67.3	40.7	54.4	69.5	46.8	44.5	63.7	40.2	24.7	69.9	46.4	30.9
Incr Delay (d2), s/veh	127.3	0.1	105.2	23.5	0.3	0.1	113.3	30.4	0.2	86.8	77.5	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	14.3	1.9	31.3	4.1	3.7	0.5	19.8	39.2	5.2	7.1	42.9	3.2
LnGrp Delay(d),s/veh	194.5	40.9	159.6	93.0	47.1	44.6	177.1	70.6	24.9	156.8	123.9	31.1
LnGrp LOS	F	D	F	F	D	D	F	F	C	F	F	C
Approach Vol, veh/h		810			293			2979			1794	
Approach Delay, s/veh		160.4			73.3			79.0			120.0	
Approach LOS		F			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	75.4	13.8	46.2	27.0	63.0	20.0	40.0
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	10.1	69.6	9.3	41.2	22.5	57.2	15.5	35.0
Max Q Clear Time (g_c+I1), s	12.1	71.6	9.6	43.2	24.5	59.2	17.5	9.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	102.4
HCM 2010 LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	285	175	60	2435	1945	175
Future Volume (veh/h)	285	175	60	2435	1945	175
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1863	1866	1900
Adj Flow Rate, veh/h	300	184	63	2563	2047	184
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2
Cap, veh/h	500	230	82	2645	3112	277
Arrive On Green	0.14	0.14	0.05	0.75	0.65	0.65
Sat Flow, veh/h	3510	1615	1810	3632	4929	425
Grp Volume(v), veh/h	300	184	63	2563	1455	776
Grp Sat Flow(s),veh/h/ln	1755	1615	1810	1770	1698	1790
Q Serve(g_s), s	7.4	10.2	3.2	61.4	24.1	24.5
Cycle Q Clear(g_c), s	7.4	10.2	3.2	61.4	24.1	24.5
Prop In Lane	1.00	1.00	1.00			0.24
Lane Grp Cap(c), veh/h	500	230	82	2645	2219	1170
V/C Ratio(X)	0.60	0.80	0.77	0.97	0.66	0.66
Avail Cap(c_a), veh/h	702	323	176	2726	2219	1170
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	37.2	38.4	43.7	10.7	9.7	9.8
Incr Delay (d2), s/veh	1.2	9.2	14.0	10.9	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	5.2	1.9	33.2	11.3	12.3
LnGrp Delay(d),s/veh	38.4	47.7	57.7	21.6	10.5	11.3
LnGrp LOS	D	D	E	C	B	B
Approach Vol, veh/h	484			2626	2231	
Approach Delay, s/veh	41.9			22.5	10.8	
Approach LOS	D			C	B	

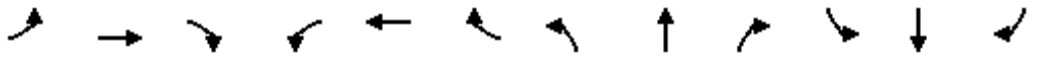
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		17.7	8.7	66.2				74.9
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		18.5	9.0	57.8				71.3
Max Q Clear Time (g_c+I1), s		12.2	5.2	26.5				63.4
Green Ext Time (p_c), s		1.0	0.0	31.2				5.8

Intersection Summary	
HCM 2010 Ctrl Delay	19.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	320	625	105	240	210	485	1955	110	325	1600	225
Future Volume (veh/h)	330	320	625	105	240	210	485	1955	110	325	1600	225
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1845	1900	1900	1810	1900	1863	1863	1900	1863	1863	1845
Adj Flow Rate, veh/h	355	344	672	113	258	226	522	2102	118	349	1720	242
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	3	0	0	5	5	2	2	2	2	2	3
Cap, veh/h	259	846	385	112	277	232	573	1457	81	245	2029	613
Arrive On Green	0.14	0.24	0.24	0.06	0.16	0.16	0.17	0.43	0.43	0.14	0.40	0.40
Sat Flow, veh/h	1792	3505	1595	1810	1748	1465	3442	3408	189	1774	5085	1538
Grp Volume(v), veh/h	355	344	672	113	254	230	522	1082	1138	349	1720	242
Grp Sat Flow(s),veh/h/ln	1792	1752	1595	1810	1719	1494	1721	1770	1828	1774	1695	1538
Q Serve(g_s), s	21.0	12.0	35.0	9.0	21.1	22.3	21.6	62.0	62.0	20.0	44.5	16.3
Cycle Q Clear(g_c), s	21.0	12.0	35.0	9.0	21.1	22.3	21.6	62.0	62.0	20.0	44.5	16.3
Prop In Lane	1.00		1.00	1.00		0.98	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	259	846	385	112	273	237	573	757	782	245	2029	613
V/C Ratio(X)	1.37	0.41	1.75	1.01	0.93	0.97	0.91	1.43	1.46	1.43	0.85	0.39
Avail Cap(c_a), veh/h	259	846	385	112	273	237	593	757	782	245	2029	613
HCM Platoon Ratio	1.00	1.00	1.00	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	62.0	46.3	55.0	68.0	60.2	60.7	59.4	41.5	41.5	62.5	39.6	31.1
Incr Delay (d2), s/veh	188.3	1.1	346.1	86.6	36.6	50.7	18.9	200.8	212.6	213.9	3.7	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	24.0	5.9	52.4	7.2	12.8	12.6	11.8	72.5	77.4	24.3	21.6	7.0
LnGrp Delay(d),s/veh	250.3	47.4	401.1	154.6	96.8	111.4	78.2	242.3	254.1	276.4	43.3	31.7
LnGrp LOS	F	D	F	F	F	F	E	F	F	F	D	C
Approach Vol, veh/h		1371			597			2742			2311	
Approach Delay, s/veh		273.3			113.3			216.0			77.3	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	67.0	13.0	41.0	28.2	62.8	25.0	29.0
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	20.0	62.0	9.0	35.0	25.0	57.0	21.0	23.0
Max Q Clear Time (g_c+I1), s	22.0	64.0	11.0	37.0	23.6	46.5	23.0	24.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.6	10.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	172.8
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	170	380	130	105	55	155	1030	235	45	510	25
Future Volume (veh/h)	140	170	380	130	105	55	155	1030	235	45	510	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1724	1845	1900	1743	1792	1681	1848	1900	1900	1827	1624
Adj Flow Rate, veh/h	154	187	418	143	115	60	170	1132	258	49	560	27
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	12	12	3	9	9	6	13	3	3	0	4	17
Cap, veh/h	35	0	486	37	0	472	192	818	186	63	870	643
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.12	0.56	0.56	0.03	0.48	0.48
Sat Flow, veh/h	0	0	1565	0	0	1522	1601	1457	332	1810	1827	1350
Grp Volume(v), veh/h	341	0	418	258	0	60	170	0	1390	49	560	27
Grp Sat Flow(s),veh/h/ln	0	0	1565	0	0	1522	1601	0	1789	1810	1827	1350
Q Serve(g_s), s	0.0	0.0	37.6	0.0	0.0	4.2	15.7	0.0	84.1	4.0	34.7	1.6
Cycle Q Clear(g_c), s	46.5	0.0	37.6	46.5	0.0	4.2	15.7	0.0	84.1	4.0	34.7	1.6
Prop In Lane	0.45		1.00	0.55		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	35	0	486	37	0	472	192	0	1004	63	870	643
V/C Ratio(X)	9.78	0.00	0.86	6.91	0.00	0.13	0.89	0.00	1.38	0.77	0.64	0.04
Avail Cap(c_a), veh/h	35	0	486	37	0	472	273	0	1004	65	870	643
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.9	0.0	48.6	74.9	0.0	37.1	64.9	0.0	32.9	71.7	29.6	21.0
Incr Delay (d2), s/veh	4006.6	0.0	14.7	2714.3	0.0	0.1	22.1	0.0	179.2	43.0	2.6	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	40.2	0.0	18.3	29.7	0.0	1.8	8.1	0.0	91.3	2.8	18.1	0.6
LnGrp Delay(d),s/veh	4081.5	0.0	63.3	2789.2	0.0	37.2	87.0	0.0	212.0	114.7	32.2	21.0
LnGrp LOS	F		E	F		D	F		F	F	C	C
Approach Vol, veh/h		759			318			1560			636	
Approach Delay, s/veh		1868.6			2270.0			198.4			38.1	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.3	89.5		51.0	22.1	76.8		51.0
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	5.4	84.1		46.5	25.5	64.0		46.5
Max Q Clear Time (g_c+I1), s	6.0	86.1		48.5	17.7	36.7		48.5
Green Ext Time (p_c), s	0.0	0.0		0.0	0.3	26.5		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		755.8
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	240	50	830	145	295	50	765	840	190	825	30
Future Volume (veh/h)	60	240	50	830	145	295	50	765	840	190	825	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1839	1900	1881	1870	1900	1900	1845	1881	1900	1861	1900
Adj Flow Rate, veh/h	64	255	53	993	0	314	53	814	894	202	878	32
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	1	3	0	0	3	1	0	2	2
Cap, veh/h	211	350	72	1019	0	457	69	1262	575	182	1470	54
Arrive On Green	0.12	0.12	0.12	0.28	0.00	0.28	0.04	0.36	0.36	0.10	0.42	0.42
Sat Flow, veh/h	1740	2884	589	3583	0	1606	1810	3505	1596	1810	3476	127
Grp Volume(v), veh/h	64	153	155	993	0	314	53	814	894	202	447	463
Grp Sat Flow(s),veh/h/ln	1740	1747	1726	1792	0	1606	1810	1752	1596	1810	1768	1835
Q Serve(g_s), s	4.7	11.7	12.1	38.1	0.0	24.1	4.0	26.9	50.0	14.0	27.1	27.1
Cycle Q Clear(g_c), s	4.7	11.7	12.1	38.1	0.0	24.1	4.0	26.9	50.0	14.0	27.1	27.1
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	211	212	210	1019	0	457	69	1262	575	182	748	776
V/C Ratio(X)	0.30	0.72	0.74	0.97	0.00	0.69	0.77	0.64	1.56	1.11	0.60	0.60
Avail Cap(c_a), veh/h	351	352	348	1019	0	457	117	1262	575	182	748	776
HCM Platoon Ratio	1.00	1.00	1.00	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	55.6	58.7	58.9	49.2	0.0	44.2	66.2	37.0	44.4	62.4	30.9	30.9
Incr Delay (d2), s/veh	0.8	4.5	5.1	22.1	0.0	4.3	16.5	1.3	258.4	98.3	1.6	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	2.3	5.9	6.0	22.0	0.0	11.2	2.3	13.2	63.1	11.9	13.5	14.0
LnGrp Delay(d),s/veh	56.4	63.3	64.0	71.2	0.0	48.5	82.7	38.3	302.8	160.7	32.5	32.4
LnGrp LOS	E	E	E	E		D	F	D	F	F	C	C
Approach Vol, veh/h		372			1307			1761			1112	
Approach Delay, s/veh		62.4			65.8			173.9			55.8	
Approach LOS		E			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	55.0		21.9	9.3	63.7		44.0
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	14.0	50.0		28.0	9.0	55.0		39.5
Max Q Clear Time (g_c+I1), s	16.0	52.0		14.1	6.0	29.1		40.1
Green Ext Time (p_c), s	0.0	0.0		1.6	0.0	22.5		0.0

Intersection Summary			
HCM 2010 Ctrl Delay		104.9	
HCM 2010 LOS		F	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	1140	25	35	1095	515	55	20	15	490	20	250
Future Volume (veh/h)	320	1140	25	35	1095	515	55	20	15	490	20	250
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1882	1900	1845	1881	1776	1900	1900	1900	1863	1866	1900
Adj Flow Rate, veh/h	333	1188	26	36	1141	0	57	21	16	525	0	260
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	1	1	3	1	7	0	0	0	2	0	0
Cap, veh/h	350	1749	38	45	1147	485	131	72	55	772	0	349
Arrive On Green	0.19	0.49	0.49	0.03	0.32	0.00	0.07	0.07	0.07	0.22	0.00	0.22
Sat Flow, veh/h	1810	3577	78	1757	3574	1509	1810	994	757	3548	0	1606
Grp Volume(v), veh/h	333	594	620	36	1141	0	57	0	37	525	0	260
Grp Sat Flow(s),veh/h/ln	1810	1788	1867	1757	1787	1509	1810	0	1751	1774	0	1606
Q Serve(g_s), s	18.1	25.3	25.3	2.0	31.7	0.0	3.0	0.0	2.0	13.5	0.0	15.1
Cycle Q Clear(g_c), s	18.1	25.3	25.3	2.0	31.7	0.0	3.0	0.0	2.0	13.5	0.0	15.1
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	350	874	913	45	1147	485	131	0	126	772	0	349
V/C Ratio(X)	0.95	0.68	0.68	0.80	0.99	0.00	0.44	0.00	0.29	0.68	0.00	0.74
Avail Cap(c_a), veh/h	350	874	913	90	1147	485	131	0	126	1139	0	516
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.7	19.5	19.5	48.3	33.8	0.0	44.3	0.0	43.8	35.8	0.0	36.4
Incr Delay (d2), s/veh	35.2	3.7	3.5	27.0	25.2	0.0	10.2	0.0	5.8	1.5	0.0	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	12.5	13.3	13.8	1.3	19.6	0.0	1.9	0.0	1.2	6.8	0.0	7.1
LnGrp Delay(d),s/veh	75.0	23.1	23.0	75.3	59.0	0.0	54.5	0.0	49.6	37.3	0.0	40.9
LnGrp LOS	E	C	C	E	E		D		D	D		D
Approach Vol, veh/h		1547			1177			94			785	
Approach Delay, s/veh		34.2			59.5			52.6			38.5	
Approach LOS		C			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.2	7.0	53.8		26.7	23.8	37.0
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		7.2	5.1	46.2		32.0	19.3	32.0
Max Q Clear Time (g_c+I1), s		5.0	4.0	27.3		17.1	20.1	33.7
Green Ext Time (p_c), s		0.1	0.0	18.4		4.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.9
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1125	535	640	1355	0	0	0	0	70	5	330
Future Volume (veh/h)	0	1125	535	640	1355	0	0	0	0	70	5	330
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1881	1863	1863	1827	0				1900	1863	1900
Adj Flow Rate, veh/h	0	1184	563	674	1426	0				74	5	347
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	1	2	2	4	0				0	0	0
Cap, veh/h	0	1223	540	677	2650	0				309	4	267
Arrive On Green	0.00	0.34	0.34	0.38	0.76	0.00				0.17	0.17	0.17
Sat Flow, veh/h	0	3668	1579	1774	3563	0				1810	23	1565
Grp Volume(v), veh/h	0	1184	563	674	1426	0				74	0	352
Grp Sat Flow(s),veh/h/ln	0	1787	1579	1774	1736	0				1810	0	1587
Q Serve(g_s), s	0.0	45.6	47.9	53.1	23.1	0.0				5.0	0.0	23.9
Cycle Q Clear(g_c), s	0.0	45.6	47.9	53.1	23.1	0.0				5.0	0.0	23.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1223	540	677	2650	0				309	0	271
V/C Ratio(X)	0.00	0.97	1.04	1.00	0.54	0.00				0.24	0.00	1.30
Avail Cap(c_a), veh/h	0	1223	540	677	2650	0				309	0	271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.67	0.67	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	45.3	46.0	43.2	6.6	0.0				50.2	0.0	58.1
Incr Delay (d2), s/veh	0.0	14.8	43.2	9.5	0.1	0.0				0.1	0.0	159.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	25.0	27.3	27.8	10.9	0.0				2.5	0.0	22.4
LnGrp Delay(d),s/veh	0.0	60.1	89.2	52.7	6.7	0.0				50.3	0.0	217.1
LnGrp LOS		E	F	D	A					D		F
Approach Vol, veh/h		1747			2100						426	
Approach Delay, s/veh		69.5			21.5						188.1	
Approach LOS		E			C						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	59.0	53.0		28.0		112.0		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	53.4	47.9		23.9		106.9		
Max Q Clear Time (g_c+I1), s	55.1	49.9		25.9		25.1		
Green Ext Time (p_c), s	0.0	0.0		0.0		34.7		

Intersection Summary	
HCM 2010 Ctrl Delay	57.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	885	0	0	1550	135	445	5	570	0	0	0
Future Volume (veh/h)	310	885	0	0	1550	135	445	5	570	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1881	0	0	1881	1881	1810	1848	1863			
Adj Flow Rate, veh/h	337	962	0	0	1685	147	700	0	392			
Adj No. of Lanes	1	2	0	0	2	1	2	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	1	0	0	1	1	5	0	2			
Cap, veh/h	328	2445	0	0	1658	742	789	0	363			
Arrive On Green	0.19	0.68	0.00	0.00	0.46	0.46	0.23	0.00	0.23			
Sat Flow, veh/h	1774	3668	0	0	3668	1599	3447	0	1583			
Grp Volume(v), veh/h	337	962	0	0	1685	147	700	0	392			
Grp Sat Flow(s),veh/h/ln	1774	1787	0	0	1787	1599	1723	0	1583			
Q Serve(g_s), s	18.5	11.6	0.0	0.0	46.4	5.4	19.6	0.0	22.9			
Cycle Q Clear(g_c), s	18.5	11.6	0.0	0.0	46.4	5.4	19.6	0.0	22.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	328	2445	0	0	1658	742	789	0	363			
V/C Ratio(X)	1.03	0.39	0.00	0.00	1.02	0.20	0.89	0.00	1.08			
Avail Cap(c_a), veh/h	328	2445	0	0	1658	742	789	0	363			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.26	0.26	0.00	0.00	0.66	0.66	1.00	0.00	1.00			
Uniform Delay (d), s/veh	40.8	6.8	0.0	0.0	26.8	15.8	37.3	0.0	38.5			
Incr Delay (d2), s/veh	32.4	0.1	0.0	0.0	22.1	0.4	12.2	0.0	70.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	12.0	5.7	0.0	0.0	27.9	2.4	10.7	0.0	17.1			
LnGrp Delay(d),s/veh	73.1	7.0	0.0	0.0	48.9	16.2	49.5	0.0	109.2			
LnGrp LOS	F	A			F	B	D		F			
Approach Vol, veh/h		1299			1832			1092				
Approach Delay, s/veh		24.1			46.2			70.9				
Approach LOS		C			D			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		73.0			22.0	51.0		27.0
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		68.4			18.5	46.4		22.9
Max Q Clear Time (g_c+I1), s		13.6			20.5	48.4		24.9
Green Ext Time (p_c), s		27.5			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	1060	340	55	1440	0	250	0	55	0	0	0
Future Volume (veh/h)	55	1060	340	55	1440	0	250	0	55	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1858	1900	1900	1863	0	1827	0	1810			
Adj Flow Rate, veh/h	60	1165	374	60	1582	0	275	0	60			
Adj No. of Lanes	1	3	0	1	3	0	1	0	1			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	2	2	0	2	0	4	0	5			
Cap, veh/h	127	1688	542	85	2153	0	362	0	320			
Arrive On Green	0.07	0.45	0.45	0.05	0.42	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	1810	3777	1212	1810	5253	0	1740	0	1538			
Grp Volume(v), veh/h	60	1043	496	60	1582	0	275	0	60			
Grp Sat Flow(s),veh/h/ln	1810	1691	1608	1810	1695	0	1740	0	1538			
Q Serve(g_s), s	1.4	11.2	11.2	1.5	11.8	0.0	6.7	0.0	1.5			
Cycle Q Clear(g_c), s	1.4	11.2	11.2	1.5	11.8	0.0	6.7	0.0	1.5			
Prop In Lane	1.00		0.75	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	127	1511	718	85	2153	0	362	0	320			
V/C Ratio(X)	0.47	0.69	0.69	0.71	0.73	0.00	0.76	0.00	0.19			
Avail Cap(c_a), veh/h	240	1511	718	224	2191	0	807	0	714			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	20.2	10.0	10.0	21.3	10.9	0.0	16.9	0.0	14.8			
Incr Delay (d2), s/veh	2.7	2.0	4.1	10.3	1.8	0.0	3.3	0.0	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			
%ile BackOfQ(50%),veh/ln	0.8	5.5	5.6	1.0	5.8	0.0	3.5	0.0	0.6			
LnGrp Delay(d),s/veh	22.9	12.0	14.1	31.6	12.7	0.0	20.2	0.0	15.0			
LnGrp LOS	C	B	B	C	B		C		B			
Approach Vol, veh/h		1599			1642			335				
Approach Delay, s/veh		13.0			13.4			19.2				
Approach LOS		B			B			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	6.1	25.2			7.2	24.2		13.9
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.6	19.9			6.0	19.5		21.0
Max Q Clear Time (g_c+I1), s	3.5	13.2			3.4	13.8		8.7
Green Ext Time (p_c), s	0.0	6.7			0.0	5.4		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	2420	1865	5
Future Vol, veh/h	0	20	5	2420	1865	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	135	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	2495	1923	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	964	1928	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.2	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.95	3.1	-	-	-
Pot Cap-1 Maneuver	0	215	139	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	215	139	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.5	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	139	-	215	-	-
HCM Lane V/C Ratio	0.037	-	0.096	-	-
HCM Control Delay (s)	31.9	-	23.5	-	-
HCM Lane LOS	D	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	325	125	165	200	100	50	515	305	175	275	100
Future Volume (veh/h)	70	325	125	165	200	100	50	515	305	175	275	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	76	353	136	179	217	109	54	560	332	190	299	109
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	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	98	351	135	206	392	197	77	565	334	215	873	312
Arrive On Green	0.05	0.27	0.27	0.12	0.34	0.34	0.04	0.26	0.26	0.12	0.34	0.34
Sat Flow, veh/h	1774	1282	494	1774	1171	588	1774	2140	1268	1774	2558	914
Grp Volume(v), veh/h	76	0	489	179	0	326	54	463	429	190	205	203
Grp Sat Flow(s),veh/h/ln	1774	0	1776	1774	0	1759	1774	1770	1639	1774	1770	1702
Q Serve(g_s), s	3.4	0.0	21.9	7.9	0.0	12.1	2.4	20.9	20.9	8.4	6.9	7.1
Cycle Q Clear(g_c), s	3.4	0.0	21.9	7.9	0.0	12.1	2.4	20.9	20.9	8.4	6.9	7.1
Prop In Lane	1.00		0.28	1.00		0.33	1.00		0.77	1.00		0.54
Lane Grp Cap(c), veh/h	98	0	486	206	0	589	77	467	432	215	604	581
V/C Ratio(X)	0.78	0.00	1.01	0.87	0.00	0.55	0.70	0.99	0.99	0.88	0.34	0.35
Avail Cap(c_a), veh/h	140	0	486	206	0	589	149	467	432	215	604	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	0.00	1.00	0.57	0.00	0.57	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	29.1	34.7	0.0	21.7	37.7	29.4	29.4	34.6	19.6	19.7
Incr Delay (d2), s/veh	16.0	0.0	42.3	19.4	0.0	0.6	10.7	39.7	41.5	32.1	1.5	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	2.1	0.0	16.4	5.0	0.0	6.0	1.4	15.3	14.4	6.0	3.6	3.6
LnGrp Delay(d),s/veh	53.3	0.0	71.4	54.1	0.0	22.4	48.4	69.0	70.9	66.7	21.2	21.4
LnGrp LOS	D		F	D		C	D	E	E	E	C	C
Approach Vol, veh/h		565			505			946			598	
Approach Delay, s/veh		69.0			33.6			68.7			35.7	
Approach LOS		E			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	25.6	13.8	26.4	8.0	31.8	8.9	31.3
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	9.7	21.1	9.3	21.9	6.7	24.1	6.3	24.9
Max Q Clear Time (g_c+I1), s	10.4	22.9	9.9	23.9	4.4	9.1	5.4	14.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	7.4	0.0	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	815	130	25	1010	50	120	5	35	95	10	355
Future Volume (veh/h)	170	815	130	25	1010	50	120	5	35	95	10	355
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	185	886	141	27	1098	54	130	5	38	103	215	250
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	1635	259	177	1822	90	191	20	153	70	147	188
Arrive On Green	0.12	0.37	0.37	0.10	0.37	0.37	0.11	0.11	0.11	0.12	0.12	0.12
Sat Flow, veh/h	1774	4428	701	1774	4966	244	1774	187	1424	594	1239	1583
Grp Volume(v), veh/h	185	677	350	27	749	403	130	0	43	318	0	250
Grp Sat Flow(s),veh/h/ln	1774	1695	1739	1774	1695	1820	1774	0	1611	1833	0	1583
Q Serve(g_s), s	6.1	9.3	9.4	0.8	10.6	10.6	4.2	0.0	1.4	7.0	0.0	7.0
Cycle Q Clear(g_c), s	6.1	9.3	9.4	0.8	10.6	10.6	4.2	0.0	1.4	7.0	0.0	7.0
Prop In Lane	1.00		0.40	1.00		0.13	1.00		0.88	0.32		1.00
Lane Grp Cap(c), veh/h	211	1252	642	177	1244	668	191	0	173	218	0	188
V/C Ratio(X)	0.88	0.54	0.54	0.15	0.60	0.60	0.68	0.00	0.25	1.46	0.00	1.33
Avail Cap(c_a), veh/h	211	1494	767	177	1379	740	902	0	820	218	0	188
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	25.6	14.7	14.7	24.3	15.2	15.2	25.4	0.0	24.1	26.0	0.0	26.0
Incr Delay (d2), s/veh	31.7	1.3	2.6	0.4	1.7	3.2	4.2	0.0	0.7	231.3	0.0	180.5
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	4.8	4.6	4.9	0.4	5.2	5.9	2.2	0.0	0.7	17.5	0.0	12.4
LnGrp Delay(d),s/veh	57.3	16.0	17.3	24.7	16.9	18.4	29.6	0.0	24.9	257.3	0.0	206.5
LnGrp LOS	E	B	B	C	B	B	C		C	F		F
Approach Vol, veh/h		1212			1179			173			568	
Approach Delay, s/veh		22.7			17.6			28.4			235.0	
Approach LOS		C			B			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.9	26.8		10.3	11.0	26.6		11.0
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 26		30.0	7.0	24.0		7.0
Max Q Clear Time (g_c+I1), s	2.8	11.4		6.2	8.1	12.6		9.0
Green Ext Time (p_c), s	1.9	10.4		0.6	0.0	9.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		59.6
HCM 2010 LOS		E

Notes

Intersection	
Int Delay, s/veh	267.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	105	83	48	2320	1825	60
Future Vol, veh/h	105	83	48	2320	1825	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160	-	-	-
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	114	90	52	2522	1984	65

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3381	1024	2049	0	-	0
Stage 1	2016	-	-	-	-	-
Stage 2	1365	-	-	-	-	-
Critical Hdwy	6.29	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	~ 9	200	118	-	-	-
Stage 1	~ 56	-	-	-	-	-
Stage 2	198	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 5	200	118	-	-	-
Mov Cap-2 Maneuver	~ 5	-	-	-	-	-
Stage 1	~ 56	-	-	-	-	-
Stage 2	~ 111	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, $	6299.3	1.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	118	-	5	200	-	-
HCM Lane V/C Ratio	0.442	-	22.826	0.451	-	-
HCM Control Delay (s)	57.7	$	11249.5	37	-	-
HCM Lane LOS	F	-	F	E	-	-
HCM 95th %tile Q(veh)	1.9	-	16.3	2.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	480	630	190	365	0	1225	0	350	0	0	0
Future Volume (veh/h)	5	480	630	190	365	0	1225	0	350	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1776	1845	1776	1792	1900	1810	1827	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	500	0	198	380	0	1276	0	365	0	0	0
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	7	3	7	6	6	5	0	0	0	0	0
Cap, veh/h	11	423	374	162	588	0	981	0	884	1	1	0
Arrive On Green	0.01	0.24	0.00	0.10	0.33	0.00	0.57	0.00	0.57	0.00	0.00	0.00
Sat Flow, veh/h	1810	1776	1568	1691	1792	0	1723	0	1553	1810	1900	0
Grp Volume(v), veh/h	5	500	0	198	380	0	1276	0	365	0	0	0
Grp Sat Flow(s),veh/h/ln	1810	1776	1568	1691	1792	0	1723	0	1553	1810	1900	0
Q Serve(g_s), s	0.4	33.5	0.0	13.5	25.4	0.0	80.0	0.0	18.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	33.5	0.0	13.5	25.4	0.0	80.0	0.0	18.6	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	11	423	374	162	588	0	981	0	884	1	1	0
V/C Ratio(X)	0.44	1.18	0.00	1.22	0.65	0.00	1.30	0.00	0.41	0.00	0.00	0.00
Avail Cap(c_a), veh/h	64	423	374	162	588	0	981	0	884	64	68	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	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	69.6	53.5	0.0	63.5	40.2	0.0	30.2	0.0	17.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	24.2	103.3	0.0	141.3	2.4	0.0	142.7	0.0	0.3	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	0.3	28.5	0.0	12.7	13.0	0.0	76.8	0.0	8.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	93.8	156.8	0.0	204.8	42.7	0.0	172.9	0.0	17.3	0.0	0.0	0.0
LnGrp LOS	F	F		F	D		F		B			
Approach Vol, veh/h		505			578			1641			0	
Approach Delay, s/veh		156.2			98.2			138.3			0.0	
Approach LOS		F			F			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		84.5	18.0	38.0		0.0	5.4	50.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		80.0	13.5	33.5		5.0	5.0	42.0
Max Q Clear Time (g_c+I1), s		82.0	15.5	35.5		0.0	2.4	27.4
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	133.1
HCM 2010 LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	15	285	1985	15	240	1020
Future Volume (veh/h)	15	285	1985	15	240	1020
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1863	1900	1863	1810
Adj Flow Rate, veh/h	16	306	2134	16	258	1097
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	2	2	2	5
Cap, veh/h	11	219	2163	16	272	2711
Arrive On Green	0.14	0.14	0.60	0.60	0.15	0.79
Sat Flow, veh/h	80	1539	3694	27	1774	3529
Grp Volume(v), veh/h	323	0	1047	1103	258	1097
Grp Sat Flow(s),veh/h/ln	1624	0	1770	1858	1774	1719
Q Serve(g_s), s	18.5	0.0	75.2	75.7	18.7	12.9
Cycle Q Clear(g_c), s	18.5	0.0	75.2	75.7	18.7	12.9
Prop In Lane	0.05	0.95		0.01	1.00	
Lane Grp Cap(c), veh/h	231	0	1063	1116	272	2711
V/C Ratio(X)	1.40	0.00	0.99	0.99	0.95	0.40
Avail Cap(c_a), veh/h	231	0	1063	1116	272	2711
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	55.8	0.0	25.4	25.5	54.6	4.3
Incr Delay (d2), s/veh	202.9	0.0	24.2	24.1	41.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.3	0.0	43.5	46.1	12.3	6.1
LnGrp Delay(d),s/veh	258.7	0.0	49.6	49.6	95.6	4.7
LnGrp LOS	F		D	D	F	A
Approach Vol, veh/h	323		2150			1355
Approach Delay, s/veh	258.7		49.6			22.0
Approach LOS	F		D			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	24.4	82.6				107.0		23.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	19.9	78.1				102.5		18.5
Max Q Clear Time (g_c+I1), s	20.7	77.7				14.9		20.5
Green Ext Time (p_c), s	0.0	0.4				71.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	57.5
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	5	35	5	10	10	1785	380	20	1315	5
Future Vol, veh/h	5	5	5	35	5	10	10	1785	380	20	1315	5
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	-	-	30	-	-	30	105	-	-	105	-	-
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, %	0	0	0	0	0	0	0	2	1	0	5	0
Mvmt Flow	5	5	5	38	5	11	11	1940	413	22	1429	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2471	3851	717	2929	3646	1177	1435	0	0	2353	0	0
Stage 1	1476	1476	-	2168	2168	-	-	-	-	-	-	-
Stage 2	995	2375	-	761	1478	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	16	~ 4	377	~ 7	~ 5	187	479	-	-	212	-	-
Stage 1	135	192	-	49	87	-	-	-	-	-	-	-
Stage 2	266	68	-	368	192	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 4	377	-	~ 4	187	479	-	-	212	-	-
Mov Cap-2 Maneuver	-	~ 4	-	-	~ 4	-	-	-	-	-	-	-
Stage 1	132	172	-	48	85	-	-	-	-	-	-	-
Stage 2	229	66	-	315	172	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.1	0.4
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	479	-	-	-	377	-	187	212	-	-
HCM Lane V/C Ratio	0.023	-	-	-	0.014	-	0.058	0.103	-	-
HCM Control Delay (s)	12.7	-	-	-	14.7	-	25.4	23.9	-	-
HCM Lane LOS	B	-	-	-	B	-	D	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	0	-	0.2	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	65	185	50	25	20	115	380	90	15	185	130
Future Volume (veh/h)	285	65	185	50	25	20	115	380	90	15	185	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1826	1810	1900	1875	1900	1827	1866	1900	1900	1810	1827
Adj Flow Rate, veh/h	320	73	208	56	28	22	129	427	101	17	208	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	5	5	5	5	4	2	2	0	5	4
Cap, veh/h	372	85	400	75	38	29	165	564	133	36	564	484
Arrive On Green	0.26	0.26	0.26	0.08	0.08	0.08	0.09	0.39	0.39	0.02	0.31	0.00
Sat Flow, veh/h	1428	326	1538	932	466	366	1740	1460	345	1810	1810	1553
Grp Volume(v), veh/h	393	0	208	106	0	0	129	0	528	17	208	0
Grp Sat Flow(s),veh/h/ln	1754	0	1538	1764	0	0	1740	0	1805	1810	1810	1553
Q Serve(g_s), s	15.2	0.0	8.2	4.2	0.0	0.0	5.2	0.0	18.1	0.7	6.4	0.0
Cycle Q Clear(g_c), s	15.2	0.0	8.2	4.2	0.0	0.0	5.2	0.0	18.1	0.7	6.4	0.0
Prop In Lane	0.81		1.00	0.53		0.21	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	456	0	400	142	0	0	165	0	698	36	564	484
V/C Ratio(X)	0.86	0.00	0.52	0.75	0.00	0.00	0.78	0.00	0.76	0.47	0.37	0.00
Avail Cap(c_a), veh/h	530	0	465	446	0	0	320	0	698	127	564	484
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.1	0.0	22.5	32.0	0.0	0.0	31.5	0.0	18.9	34.5	19.0	0.0
Incr Delay (d2), s/veh	12.2	0.0	1.0	7.6	0.0	0.0	7.9	0.0	7.5	9.1	1.9	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	8.9	0.0	3.6	2.3	0.0	0.0	2.8	0.0	10.4	0.4	3.5	0.0
LnGrp Delay(d),s/veh	37.3	0.0	23.6	39.6	0.0	0.0	39.4	0.0	26.5	43.6	20.9	0.0
LnGrp LOS	D		C	D			D		C	D	C	
Approach Vol, veh/h		601			106			657			225	
Approach Delay, s/veh		32.5			39.6			29.0			22.6	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	32.0		23.0	11.2	26.7		10.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	27.5		21.5	13.1	19.4		18.0
Max Q Clear Time (g_c+I1), s	2.7	20.1		17.2	7.2	8.4		6.2
Green Ext Time (p_c), s	0.0	2.8		1.3	0.1	3.6		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	30.1
HCM 2010 LOS	C

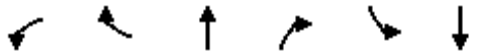
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	28	527	344	1
Future Vol, veh/h	0	11	28	527	344	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	4	2	3	0
Mvmt Flow	0	13	33	613	400	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1079	401	401	0	-	0
Stage 1	401	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	244	653	1147	-	-	-
Stage 1	681	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	237	653	1147	-	-	-
Mov Cap-2 Maneuver	237	-	-	-	-	-
Stage 1	681	-	-	-	-	-
Stage 2	493	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1147	-	653	-	-
HCM Lane V/C Ratio	0.028	-	0.02	-	-
HCM Control Delay (s)	8.2	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	160	395	25	260	95
Future Volume (veh/h)	10	160	395	25	260	95
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1854	1900	1875	1900	1810	1881
Adj Flow Rate, veh/h	11	182	449	28	295	108
Adj No. of Lanes	0	0	1	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	1	1	5	1
Cap, veh/h	14	228	700	44	349	1288
Arrive On Green	0.15	0.15	0.40	0.40	0.20	0.68
Sat Flow, veh/h	90	1489	1747	109	1723	1881
Grp Volume(v), veh/h	194	0	0	477	295	108
Grp Sat Flow(s),veh/h/ln	1587	0	0	1855	1723	1881
Q Serve(g_s), s	6.5	0.0	0.0	11.5	9.1	1.1
Cycle Q Clear(g_c), s	6.5	0.0	0.0	11.5	9.1	1.1
Prop In Lane	0.06	0.94		0.06	1.00	
Lane Grp Cap(c), veh/h	243	0	0	744	349	1288
V/C Ratio(X)	0.80	0.00	0.00	0.64	0.84	0.08
Avail Cap(c_a), veh/h	515	0	0	744	419	1288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	0.0	0.0	13.4	21.3	2.9
Incr Delay (d2), s/veh	5.9	0.0	0.0	4.2	12.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.0	6.7	5.6	0.6
LnGrp Delay(d),s/veh	28.6	0.0	0.0	17.6	34.0	3.1
LnGrp LOS	C			B	C	A
Approach Vol, veh/h	194		477			403
Approach Delay, s/veh	28.6		17.6			25.7
Approach LOS	C		B			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.7	26.8				42.5		13.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	13.5	20.0				38.0		18.0
Max Q Clear Time (g_c+I1), s	11.1	13.5				3.1		8.5
Green Ext Time (p_c), s	0.2	2.0				4.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.6
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	100	0	345	20	0	195
Future Vol, veh/h	100	0	345	20	0	195
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	106	0	367	21	0	207

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	585	378	0	0	388	0
Stage 1	378	-	-	-	-	-
Stage 2	207	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	477	673	-	-	1182	-
Stage 1	697	-	-	-	-	-
Stage 2	832	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	477	673	-	-	1182	-
Mov Cap-2 Maneuver	477	-	-	-	-	-
Stage 1	697	-	-	-	-	-
Stage 2	832	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	477	-	1182	-
HCM Lane V/C Ratio	-	-	0.223	-	-	-
HCM Control Delay (s)	-	-	14.7	0	0	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.8	-	0	-

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	0	0	38	0	8	0	357	44	8	237	0
Future Vol, veh/h	0	0	0	38	0	8	0	357	44	8	237	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	3	0	0	0	2	0	0	3	0
Mvmt Flow	0	0	0	42	0	9	0	392	48	9	260	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	699	719	260	694	694	416	260	0	0	441	0	0
Stage 1	278	278	-	416	416	-	-	-	-	-	-	-
Stage 2	421	441	-	278	278	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	357	357	784	356	369	641	1316	-	-	1130	-	-
Stage 1	733	684	-	612	595	-	-	-	-	-	-	-
Stage 2	614	580	-	726	684	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	350	354	784	354	366	641	1316	-	-	1130	-	-
Mov Cap-2 Maneuver	350	354	-	354	366	-	-	-	-	-	-	-
Stage 1	733	679	-	612	595	-	-	-	-	-	-	-
Stage 2	606	580	-	720	679	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	15.8	0	0.3
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1316	-	-	-	384	1130	-	-
HCM Lane V/C Ratio	-	-	-	-	0.132	0.008	-	-
HCM Control Delay (s)	0	-	-	0	15.8	8.2	-	-
HCM Lane LOS	A	-	-	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	159	42	359	160	38	237
Future Vol, veh/h	159	42	359	160	38	237
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	181	48	408	182	43	269

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	855	499	0	0	590	0
Stage 1	499	-	-	-	-	-
Stage 2	356	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	331	576	-	-	995	-
Stage 1	614	-	-	-	-	-
Stage 2	713	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	317	576	-	-	995	-
Mov Cap-2 Maneuver	439	-	-	-	-	-
Stage 1	614	-	-	-	-	-
Stage 2	682	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.3	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	439	576	995	-
HCM Lane V/C Ratio	-	-	0.412	0.083	0.043	-
HCM Control Delay (s)	-	-	18.8	11.8	8.8	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	2	0.3	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	29	23	492	346	3
Future Vol, veh/h	3	29	23	492	346	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	3	4	2	3	0
Mvmt Flow	3	33	26	553	389	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	994	390	392	0	-	0
Stage 1	390	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.236	-	-	-
Pot Cap-1 Maneuver	274	656	1156	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	268	656	1156	-	-	-
Mov Cap-2 Maneuver	395	-	-	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	538	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1156	-	618	-	-
HCM Lane V/C Ratio	0.022	-	0.058	-	-
HCM Control Delay (s)	8.2	-	11.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	115	0	0	10	170	1095	0	0	840	25
Future Vol, veh/h	0	0	115	0	0	10	170	1095	0	0	840	25
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	7	4	3	0	33	1	0
Mvmt Flow	0	0	121	0	0	11	179	1153	0	0	884	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	884	2395	2395	1153	884	0	0	1153	0	0
Stage 1	-	-	-	1511	1511	-	-	-	-	-	-	-
Stage 2	-	-	-	884	884	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.21	7.1	6.5	6.27	4.14	-	-	4.43	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.309	3.5	4	3.363	2.236	-	-	2.497	-	-
Pot Cap-1 Maneuver	0	0	346	24	34	235	757	-	-	507	-	-
Stage 1	0	0	-	152	185	-	-	-	-	-	-	-
Stage 2	0	0	-	343	366	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	346	13	26	235	757	-	-	507	-	-
Mov Cap-2 Maneuver	-	-	-	13	26	-	-	-	-	-	-	-
Stage 1	-	-	-	116	141	-	-	-	-	-	-	-
Stage 2	-	-	-	223	366	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.9	21	1.5	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	757	-	-	346	235	507	-	-
HCM Lane V/C Ratio	0.236	-	-	0.35	0.045	-	-	-
HCM Control Delay (s)	11.2	-	-	20.9	21	0	-	-
HCM Lane LOS	B	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0.9	-	-	1.5	0.1	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	85	280	115	40	20	260	335	250	30	195	30
Future Volume (veh/h)	75	85	280	115	40	20	260	335	250	30	195	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1667	1827	1881	1810	1900	1863	1863	1845	1900	1853	1900
Adj Flow Rate, veh/h	93	105	346	142	49	25	321	414	309	37	241	37
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	8	14	4	1	5	5	2	2	3	0	2	2
Cap, veh/h	447	444	405	230	144	74	362	635	526	46	473	71
Arrive On Green	0.27	0.27	0.27	0.13	0.13	0.13	0.20	0.34	0.34	0.03	0.16	0.16
Sat Flow, veh/h	1675	1667	1519	1792	1123	573	1774	1863	1543	1810	3041	459
Grp Volume(v), veh/h	93	105	346	142	0	74	321	414	309	37	138	140
Grp Sat Flow(s),veh/h/ln	1675	1667	1519	1792	0	1696	1774	1863	1543	1810	1760	1740
Q Serve(g_s), s	3.2	3.6	15.9	5.5	0.0	2.9	12.9	13.8	12.1	1.5	5.3	5.4
Cycle Q Clear(g_c), s	3.2	3.6	15.9	5.5	0.0	2.9	12.9	13.8	12.1	1.5	5.3	5.4
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	447	444	405	230	0	218	362	635	526	46	274	270
V/C Ratio(X)	0.21	0.24	0.85	0.62	0.00	0.34	0.89	0.65	0.59	0.81	0.50	0.52
Avail Cap(c_a), veh/h	640	637	580	684	0	648	375	826	684	99	492	486
HCM Platoon Ratio	1.00	1.00	1.00	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	20.9	21.0	25.5	30.2	0.0	29.1	28.4	20.5	19.9	35.6	28.4	28.4
Incr Delay (d2), s/veh	0.1	0.1	6.1	1.0	0.0	0.3	21.4	0.4	0.4	11.9	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	1.7	7.3	2.8	0.0	1.4	8.5	7.1	5.2	0.9	2.6	2.7
LnGrp Delay(d),s/veh	21.0	21.1	31.7	31.2	0.0	29.4	49.8	20.9	20.3	47.5	28.9	29.0
LnGrp LOS	C	C	C	C		C	D	C	C	D	C	C
Approach Vol, veh/h		544			216			1044			315	
Approach Delay, s/veh		27.8			30.6			29.6			31.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.8	30.5		23.5	19.4	16.9		13.4
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	4.0	32.5		28.0	15.5	20.5		28.0
Max Q Clear Time (g_c+I1), s	3.5	15.8		17.9	14.9	7.4		7.5
Green Ext Time (p_c), s	0.0	3.2		1.0	0.1	3.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	15	10	80	20	275	20	550	120	405	460	10
Future Volume (veh/h)	10	15	10	80	20	275	20	550	120	405	460	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1845	1900	1881	1845	1863	1846	1900
Adj Flow Rate, veh/h	11	17	11	91	23	312	23	625	136	460	523	11
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	3	0	1	3	2	3	3
Cap, veh/h	108	152	79	287	64	717	27	731	603	502	1182	25
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.02	0.39	0.39	0.28	0.66	0.66
Sat Flow, veh/h	280	865	450	1168	365	1559	1810	1881	1552	1774	1800	38
Grp Volume(v), veh/h	39	0	0	114	0	312	23	625	136	460	0	534
Grp Sat Flow(s),veh/h/ln	1595	0	0	1533	0	1559	1810	1881	1552	1774	0	1838
Q Serve(g_s), s	0.0	0.0	0.0	2.7	0.0	10.6	1.0	23.8	4.6	19.7	0.0	11.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	4.8	0.0	10.6	1.0	23.8	4.6	19.7	0.0	11.0
Prop In Lane	0.28		0.28	0.80		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	338	0	0	351	0	717	27	731	603	502	0	1207
V/C Ratio(X)	0.12	0.00	0.00	0.32	0.00	0.44	0.84	0.86	0.23	0.92	0.00	0.44
Avail Cap(c_a), veh/h	429	0	0	441	0	812	127	804	664	589	0	1267
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.2	0.0	0.0	28.5	0.0	14.4	38.5	21.9	16.1	27.2	0.0	6.5
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	0.4	21.7	8.4	0.2	17.0	0.0	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	0.0	0.0	2.2	0.0	4.6	0.7	14.0	2.0	12.0	0.0	5.6
LnGrp Delay(d),s/veh	27.4	0.0	0.0	29.0	0.0	14.8	60.2	30.3	16.2	44.2	0.0	6.8
LnGrp LOS	C			C		B	E	C	B	D		A
Approach Vol, veh/h		39			426			784			994	
Approach Delay, s/veh		27.4			18.6			28.8			24.1	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	26.2	34.4		17.7	5.2	55.4		17.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	26.0	33.5		18.5	5.5	54.0		18.5
Max Q Clear Time (g_c+I1), s	21.7	25.8		3.4	3.0	13.0		12.6
Green Ext Time (p_c), s	0.5	4.6		1.8	0.0	10.9		1.1

Intersection Summary		
HCM 2010 Ctrl Delay		24.7
HCM 2010 LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	35	45	50	70	50	275	600	105	30	165	530
Future Volume (veh/h)	65	35	45	50	70	50	275	600	105	30	165	530
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1839	1810	1845	1857	1900	1881	1868	1900	1845	1827	1881
Adj Flow Rate, veh/h	73	39	51	56	79	56	309	674	118	34	185	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	5	3	4	4	1	2	2	3	4	1
Cap, veh/h	136	73	180	215	124	88	379	1208	211	68	415	363
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.21	0.40	0.40	0.04	0.23	0.00
Sat Flow, veh/h	1161	620	1538	1757	1012	718	1792	3021	528	1757	1827	1599
Grp Volume(v), veh/h	112	0	51	56	0	135	309	396	396	34	185	0
Grp Sat Flow(s),veh/h/ln	1781	0	1538	1757	0	1730	1792	1775	1775	1757	1827	1599
Q Serve(g_s), s	2.6	0.0	1.3	1.3	0.0	3.3	7.3	7.6	7.7	0.8	3.9	0.0
Cycle Q Clear(g_c), s	2.6	0.0	1.3	1.3	0.0	3.3	7.3	7.6	7.7	0.8	3.9	0.0
Prop In Lane	0.65		1.00	1.00		0.41	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	209	0	180	215	0	212	379	709	710	68	415	363
V/C Ratio(X)	0.54	0.00	0.28	0.26	0.00	0.64	0.82	0.56	0.56	0.50	0.45	0.00
Avail Cap(c_a), veh/h	1023	0	884	728	0	717	787	1412	1412	257	918	804
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	18.5	0.0	17.9	17.7	0.0	18.5	16.7	10.3	10.3	20.9	14.8	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.3	0.2	0.0	1.2	1.7	0.4	0.4	2.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.6	0.6	0.0	1.6	3.8	3.8	3.8	0.4	2.0	0.0
LnGrp Delay(d),s/veh	19.3	0.0	18.2	17.9	0.0	19.7	18.3	10.7	10.7	23.0	15.2	0.0
LnGrp LOS	B		B	B		B	B	B	B	C	B	
Approach Vol, veh/h		163			191			1101			219	
Approach Delay, s/veh		18.9			19.2			12.8			16.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	21.4		8.7	12.4	13.8		9.5
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	6.5	35.3		25.5	19.5	22.3		18.4
Max Q Clear Time (g_c+I1), s	2.8	9.7		4.6	9.3	5.9		5.3
Green Ext Time (p_c), s	0.0	4.8		0.4	0.3	4.2		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	232.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	295	360	620	220	70	190
Future Vol, veh/h	295	360	620	220	70	190
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	91	91	91	91	91	91
Heavy Vehicles, %	3	1	2	2	4	5
Mvmt Flow	324	396	681	242	77	209

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1044	681	0	0	681	0
Stage 1	681	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Critical Hdwy	6.43	6.21	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.309	-	-	2.236	-
Pot Cap-1 Maneuver	~ 253	452	-	-	902	-
Stage 1	501	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 228	452	-	-	902	-
Mov Cap-2 Maneuver	~ 228	-	-	-	-	-
Stage 1	501	-	-	-	-	-
Stage 2	634	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 621	0	2.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	313	902	-
HCM Lane V/C Ratio	-	-	2.3	0.085	-
HCM Control Delay (s)	-	-	$ 621	9.4	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	55.7	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	13.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	380	205	70	95	70	260
Future Vol, veh/h	380	205	70	95	70	260
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	86	86	86	86	86	86
Heavy Vehicles, %	4	4	2	7	5	3
Mvmt Flow	442	238	81	110	81	302

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	680	0	834	561
Stage 1	-	-	-	-	561	-
Stage 2	-	-	-	-	273	-
Critical Hdwy	-	-	4.12	-	6.45	6.23
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.327
Pot Cap-1 Maneuver	-	-	912	-	334	525
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	766	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	912	-	302	525
Mov Cap-2 Maneuver	-	-	-	-	302	-
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	693	-

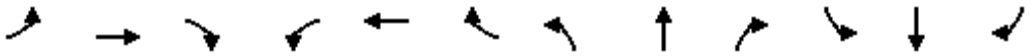
Approach	EB	WB	NB
HCM Control Delay, s	0	4	43.1
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	454	-	-	912	-
HCM Lane V/C Ratio	0.845	-	-	0.089	-
HCM Control Delay (s)	43.1	-	-	9.3	0
HCM Lane LOS	E	-	-	A	A
HCM 95th %tile Q(veh)	8.4	-	-	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	220	225	485	170	35	140	715	500	40	730	40
Future Volume (veh/h)	80	220	225	485	170	35	140	715	500	40	730	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1881	1845	1881	1863	1900	1792	1827	1863	1900	1863	1845
Adj Flow Rate, veh/h	85	234	239	516	181	37	149	761	532	43	777	43
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	1	3	1	2	0	6	4	2	0	2	3
Cap, veh/h	109	411	343	570	597	511	168	1195	805	55	978	531
Arrive On Green	0.06	0.22	0.22	0.16	0.32	0.32	0.10	0.34	0.34	0.03	0.28	0.28
Sat Flow, veh/h	1757	1881	1568	3476	1863	1594	1707	3471	1583	1810	3539	1568
Grp Volume(v), veh/h	85	234	239	516	181	37	149	761	532	43	777	43
Grp Sat Flow(s),veh/h/ln	1757	1881	1568	1738	1863	1594	1707	1736	1583	1810	1770	1568
Q Serve(g_s), s	3.9	9.1	11.6	12.0	6.0	1.3	7.1	15.2	20.5	1.9	16.8	1.5
Cycle Q Clear(g_c), s	3.9	9.1	11.6	12.0	6.0	1.3	7.1	15.2	20.5	1.9	16.8	1.5
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	109	411	343	570	597	511	168	1195	805	55	978	531
V/C Ratio(X)	0.78	0.57	0.70	0.91	0.30	0.07	0.89	0.64	0.66	0.78	0.79	0.08
Avail Cap(c_a), veh/h	213	548	457	570	622	532	168	1195	805	110	1049	562
HCM Platoon Ratio	1.00	1.00	1.00	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	38.1	28.7	29.7	33.8	21.1	19.5	36.7	22.7	15.0	39.7	27.6	18.5
Incr Delay (d2), s/veh	11.2	2.6	5.7	18.1	0.6	0.1	39.2	1.6	2.7	20.9	4.9	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	2.3	5.0	5.5	7.2	3.2	0.6	5.2	7.6	9.4	1.3	8.9	0.7
LnGrp Delay(d),s/veh	49.2	31.3	35.3	51.9	21.7	19.6	75.9	24.3	17.7	60.5	32.5	18.7
LnGrp LOS	D	C	D	D	C	B	E	C	B	E	C	B
Approach Vol, veh/h		558			734			1442			863	
Approach Delay, s/veh		35.8			42.8			27.2			33.2	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	33.8	18.0	23.5	12.6	28.2	9.6	31.9
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	27.5	13.5	24.0	8.1	24.4	10.0	27.5
Max Q Clear Time (g_c+I1), s	3.9	22.5	14.0	13.6	9.1	18.8	5.9	8.0
Green Ext Time (p_c), s	0.0	4.8	0.0	4.4	0.0	4.0	0.1	6.4

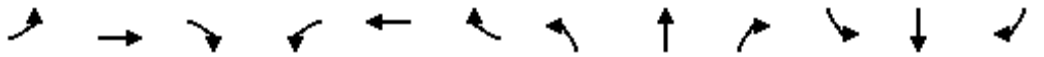
Intersection Summary	
HCM 2010 Ctrl Delay	33.2
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	270	115	0	80	0	1253	280	235	1095	110
Future Volume (vph)	0	0	270	115	0	80	0	1253	280	235	1095	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.95		1.00	0.91	
Frpb, ped/bikes			0.98	1.00		1.00		1.00		1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00		1.00	1.00	
Frt			0.86	1.00		0.85		0.97		1.00	0.99	
Flt Protected			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)			1601	1799		1455		3421		1752	5024	
Flt Permitted			1.00	0.95		1.00		1.00		0.95	1.00	
Satd. Flow (perm)			1601	1799		1455		3421		1752	5024	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	281	120	0	83	0	1305	292	245	1141	115
RTOR Reduction (vph)	0	0	118	0	0	71	0	20	0	0	13	0
Lane Group Flow (vph)	0	0	163	120	0	12	0	1577	0	245	1243	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Perm		Perm		NA		Prot	NA	
Protected Phases								6		5	2	
Permitted Phases			4	8		8						
Actuated Green, G (s)			12.4	12.4		12.4		45.4		13.6	63.0	
Effective Green, g (s)			12.4	12.4		12.4		45.4		13.6	63.0	
Actuated g/C Ratio			0.15	0.15		0.15		0.53		0.16	0.74	
Clearance Time (s)			4.0	4.0		4.0		5.5		4.0	5.5	
Vehicle Extension (s)			3.0	4.0		4.0		4.0		0.5	4.0	
Lane Grp Cap (vph)			233	262		212		1829		280	3728	
v/s Ratio Prot								c0.46		c0.14	0.25	
v/s Ratio Perm			c0.10	0.07		0.01						
v/c Ratio			0.70	0.46		0.06		0.86		0.88	0.33	
Uniform Delay, d1			34.5	33.2		31.2		17.0		34.8	3.8	
Progression Factor			1.00	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2			9.1	1.7		0.2		4.6		24.1	0.1	
Delay (s)			43.6	34.9		31.4		21.6		58.9	3.8	
Level of Service			D	C		C		C		E	A	
Approach Delay (s)		43.6			33.5			21.6			12.8	
Approach LOS		D			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	20.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	84.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	20	210	140	30	65	210	1120	85	100	1130	190
Future Volume (veh/h)	280	20	210	140	30	65	210	1120	85	100	1130	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1863	1881	1845	1863	1881
Adj Flow Rate, veh/h	292	21	219	146	31	68	219	1167	89	104	1177	198
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	1	3	2	1
Cap, veh/h	330	289	441	182	127	117	256	1647	743	131	1999	620
Arrive On Green	0.19	0.16	0.16	0.10	0.07	0.07	0.15	0.47	0.47	0.07	0.39	0.39
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	3539	1597	1757	5085	1577
Grp Volume(v), veh/h	292	21	219	146	31	68	219	1167	89	104	1177	198
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1770	1597	1757	1695	1577
Q Serve(g_s), s	14.1	0.8	6.2	7.0	1.4	3.5	10.6	22.6	2.7	5.0	15.7	7.5
Cycle Q Clear(g_c), s	14.1	0.8	6.2	7.0	1.4	3.5	10.6	22.6	2.7	5.0	15.7	7.5
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	330	289	441	182	127	117	256	1647	743	131	1999	620
V/C Ratio(X)	0.88	0.07	0.50	0.80	0.24	0.58	0.86	0.71	0.12	0.79	0.59	0.32
Avail Cap(c_a), veh/h	392	671	1024	364	614	563	303	1679	758	159	1999	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)	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	33.9	30.8	33.1	37.7	37.7	38.6	35.8	18.3	13.0	39.1	20.6	18.1
Incr Delay (d2), s/veh	18.4	0.1	0.9	7.8	1.0	4.5	18.4	1.8	0.2	19.5	0.7	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	8.4	0.4	2.4	3.8	0.7	1.7	6.4	11.4	1.2	3.1	7.4	3.4
LnGrp Delay(d),s/veh	52.3	30.9	33.9	45.5	38.7	43.2	54.2	20.1	13.2	58.7	21.3	18.7
LnGrp LOS	D	C	C	D	D	D	D	C	B	E	C	B
Approach Vol, veh/h		532			245			1475			1479	
Approach Delay, s/veh		43.9			44.0			24.7			23.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	45.0	12.9	17.6	16.6	38.8	20.3	10.2
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	7.8	40.8	17.8	31.6	15.0	33.6	19.4	30.0
Max Q Clear Time (g_c+I1), s	7.0	24.6	9.0	8.2	12.6	17.7	16.1	5.5
Green Ext Time (p_c), s	0.0	15.4	0.2	1.3	0.1	15.4	0.3	1.4

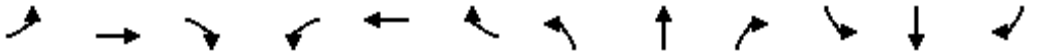
Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	290	1090	150	180	400	1280	240	0	1430	25
Future Volume (veh/h)	80	0	290	1090	150	180	400	1280	240	0	1430	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1881	1863	1864	1776	1900	1863	1845	0	1810	1900
Adj Flow Rate, veh/h	83	0	302	1135	180	172	417	1333	250	0	1490	26
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	1	2	1	7	0	2	3	0	5	0
Cap, veh/h	75	0	0	1187	474	384	380	2950	910	0	1650	539
Arrive On Green	0.04	0.00	0.00	0.33	0.25	0.25	0.42	1.00	1.00	0.00	0.33	0.33
Sat Flow, veh/h	1810	83		3548	1864	1509	1810	5085	1568	0	5103	1615
Grp Volume(v), veh/h	83	197.7		1135	180	172	417	1333	250	0	1490	26
Grp Sat Flow(s),veh/h/ln	1810	F		1774	1864	1509	1810	1695	1568	0	1647	1615
Q Serve(g_s), s	5.4			40.7	10.4	12.5	27.3	0.0	0.0	0.0	37.4	1.4
Cycle Q Clear(g_c), s	5.4			40.7	10.4	12.5	27.3	0.0	0.0	0.0	37.4	1.4
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	75			1187	474	384	380	2950	910	0	1650	539
V/C Ratio(X)	1.10			0.96	0.38	0.45	1.10	0.45	0.27	0.00	0.90	0.05
Avail Cap(c_a), veh/h	75			1348	559	453	380	2950	910	0	1650	539
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	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	0.75	0.75
Uniform Delay (d), s/veh	62.3			42.3	40.0	40.8	37.7	0.0	0.0	0.0	41.3	29.3
Incr Delay (d2), s/veh	135.0			13.9	0.2	0.3	75.0	0.5	0.7	0.0	6.6	0.1
Initial Q Delay(d3),s/veh	0.3			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			22.1	5.4	5.2	21.4	0.1	0.2	0.0	18.0	0.7
LnGrp Delay(d),s/veh	197.7			56.2	40.2	41.1	112.7	0.5	0.7	0.0	47.9	29.4
LnGrp LOS	F			E	D	D	F	A	A		D	C
Approach Vol, veh/h					1487			2000			1516	
Approach Delay, s/veh					52.5			23.9			47.6	
Approach LOS					D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		81.6	48.4		32.0	49.6	10.0	38.4
Change Period (Y+Rc), s		6.2	4.9		* 4.7	6.2	4.6	5.3
Max Green Setting (Gmax), s		69.5	49.4		* 27	37.5	5.4	39.0
Max Q Clear Time (g_c+I1), s		2.0	42.7		29.3	39.4	7.4	14.5
Green Ext Time (p_c), s		15.1	0.8		0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	42.2
HCM 2010 LOS	D

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	560	285	85	125	0	345	0	1350	100	435	995	235
Future Volume (veh/h)	560	285	85	125	0	345	0	1350	100	435	995	235
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1827	1900	0	1900	0	1776	1900	1881	1845	1827
Adj Flow Rate, veh/h	577	294	88	129	0	356	0	1392	103	448	1026	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	4	0	0	0	0	7	0	1	3	4
Cap, veh/h	767	363	159	154	0	0	0	1528	404	1377	2433	1078
Arrive On Green	0.22	0.10	0.10	0.08	0.00	0.00	0.00	0.25	0.25	0.79	1.00	0.00
Sat Flow, veh/h	3442	3539	1553	1810	129		0	6357	1615	3476	3505	1553
Grp Volume(v), veh/h	577	294	88	129	79.2		0	1392	103	448	1026	0
Grp Sat Flow(s),veh/h/ln	1721	1770	1553	1810	E		0	1527	1615	1738	1752	1553
Q Serve(g_s), s	20.4	10.6	7.0	9.1			0.0	28.8	5.2	4.7	0.0	0.0
Cycle Q Clear(g_c), s	20.4	10.6	7.0	9.1			0.0	28.8	5.2	4.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	767	363	159	154			0	1528	404	1377	2433	1078
V/C Ratio(X)	0.75	0.81	0.55	0.84			0.00	0.91	0.25	0.33	0.42	0.00
Avail Cap(c_a), veh/h	810	1143	502	187			0	1607	425	1377	2433	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00			0.00	0.94	0.94	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.2	57.1	55.5	58.6			0.0	47.3	23.5	8.6	0.0	0.0
Incr Delay (d2), s/veh	3.6	1.7	1.1	20.6			0.0	9.2	1.4	0.1	0.5	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
%ile BackOfQ(50%),veh/ln	10.1	5.3	3.1	5.5			0.0	13.1	2.5	2.1	0.2	0.0
LnGrp Delay(d),s/veh	50.7	58.8	56.6	79.2			0.0	56.5	24.9	8.7	0.5	0.0
LnGrp LOS	D	E	E	E				E	C	A	A	
Approach Vol, veh/h		959						1495			1474	
Approach Delay, s/veh		53.7						54.4			3.0	
Approach LOS		D						D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	57.7	38.7	15.6	17.9		96.4	33.6	
Change Period (Y+Rc), s	6.2	* 6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	20.4	* 34	13.4	42.0		59.2	30.6	
Max Q Clear Time (g_c+I1), s	6.7	30.8	11.1	12.6		2.0	22.4	
Green Ext Time (p_c), s	3.0	1.7	0.0	0.8		3.4	1.2	

Intersection Summary	
HCM 2010 Ctrl Delay	36.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	12	58	10	14	100	46	1180	75	0	1180	201
Future Volume (veh/h)	170	12	58	10	14	100	46	1180	75	0	1180	201
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1568	1776	1863	1865	1900	0	1863	1863
Adj Flow Rate, veh/h	177	12	60	10	15	104	48	1229	78	0	1229	209
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	7	2	2	2	0	2	2
Cap, veh/h	221	34	169	55	82	134	69	3954	250	0	1938	867
Arrive On Green	0.12	0.12	0.12	0.09	0.09	0.09	0.04	0.64	0.64	0.00	0.55	0.55
Sat Flow, veh/h	1774	271	1353	615	922	1509	1774	6214	393	0	3632	1583
Grp Volume(v), veh/h	177	0	72	25	0	104	48	951	356	0	1229	209
Grp Sat Flow(s),veh/h/ln	1774	0	1624	1537	0	1509	1774	1604	1795	0	1770	1583
Q Serve(g_s), s	8.7	0.0	3.7	1.4	0.0	6.1	2.4	8.1	8.1	0.0	21.7	6.2
Cycle Q Clear(g_c), s	8.7	0.0	3.7	1.4	0.0	6.1	2.4	8.1	8.1	0.0	21.7	6.2
Prop In Lane	1.00		0.83	0.40		1.00	1.00		0.22	0.00		1.00
Lane Grp Cap(c), veh/h	221	0	203	137	0	134	69	3062	1142	0	1938	867
V/C Ratio(X)	0.80	0.00	0.36	0.18	0.00	0.78	0.70	0.31	0.31	0.00	0.63	0.24
Avail Cap(c_a), veh/h	355	0	325	307	0	302	99	3062	1142	0	1938	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	0.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	0.00	0.89	0.89
Uniform Delay (d), s/veh	38.3	0.0	36.1	38.0	0.0	40.1	42.7	7.4	7.4	0.0	14.1	10.6
Incr Delay (d2), s/veh	6.6	0.0	1.1	0.6	0.0	9.2	9.7	0.2	0.6	0.0	1.4	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	4.7	0.0	1.7	0.6	0.0	2.9	1.4	3.6	4.1	0.0	10.8	2.8
LnGrp Delay(d),s/veh	44.8	0.0	37.1	38.6	0.0	49.3	52.5	7.6	8.0	0.0	15.5	11.2
LnGrp LOS	D		D	D		D	D	A	A		B	B
Approach Vol, veh/h		249			129			1355			1438	
Approach Delay, s/veh		42.6			47.2			9.3			14.9	
Approach LOS		D			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		61.8		15.7	8.0	53.8		12.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		40.5		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s		10.1		10.7	4.4	23.7		8.1
Green Ext Time (p_c), s		23.9		0.5	0.0	6.8		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	105	500	75	205	5	515	1051	175	115	845	255
Future Volume (veh/h)	245	105	500	75	205	5	515	1051	175	115	845	255
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1827	1900	1900	1900	1863	1881	1727	1863	1900
Adj Flow Rate, veh/h	253	108	515	77	211	5	531	1084	180	119	871	263
Adj No. of Lanes	1	1	1	2	1	1	1	3	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	4	0	0	0	2	1	10	2	0
Cap, veh/h	244	612	520	117	422	359	498	2157	677	140	828	377
Arrive On Green	0.13	0.32	0.32	0.03	0.22	0.22	0.28	0.42	0.42	0.09	0.23	0.23
Sat Flow, veh/h	1810	1900	1615	3375	1900	1615	1810	5085	1597	1645	3539	1612
Grp Volume(v), veh/h	253	108	515	77	211	5	531	1084	180	119	871	263
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1688	1900	1615	1810	1695	1597	1645	1770	1612
Q Serve(g_s), s	19.9	6.0	46.9	3.3	14.4	0.4	40.7	23.1	10.8	10.5	34.6	22.1
Cycle Q Clear(g_c), s	19.9	6.0	46.9	3.3	14.4	0.4	40.7	23.1	10.8	10.5	34.6	22.1
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	244	612	520	117	422	359	498	2157	677	140	828	377
V/C Ratio(X)	1.04	0.18	0.99	0.66	0.50	0.01	1.07	0.50	0.27	0.85	1.05	0.70
Avail Cap(c_a), veh/h	244	612	520	167	450	382	498	2157	677	218	828	377
HCM Platoon Ratio	1.00	1.00	1.00	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	64.0	36.0	49.9	70.5	50.3	44.9	53.6	31.2	27.6	66.7	56.6	51.8
Incr Delay (d2), s/veh	68.1	0.2	36.9	6.1	1.1	0.0	59.0	0.2	0.3	16.7	45.7	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	14.5	3.2	26.2	1.7	7.7	0.2	28.4	10.9	4.8	5.4	22.1	10.4
LnGrp Delay(d),s/veh	132.1	36.2	86.8	76.6	51.4	44.9	112.6	31.4	27.9	83.3	102.3	57.6
LnGrp LOS	F	D	F	E	D	D	F	C	C	F	F	E
Approach Vol, veh/h		876			293			1795			1253	
Approach Delay, s/veh		93.6			57.9			55.0			91.1	
Approach LOS		F			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	68.5	9.6	52.6	45.2	40.4	24.4	37.8
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	19.6	55.7	7.3	47.6	40.7	34.6	19.9	35.0
Max Q Clear Time (g_c+I1), s	12.5	25.1	5.3	48.9	42.7	36.6	21.9	16.4
Green Ext Time (p_c), s	0.1	23.0	0.0	0.0	0.0	0.0	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	74.0
HCM 2010 LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	90	50	35	1570	1405	70
Future Volume (veh/h)	90	50	35	1570	1405	70
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1900	1863	1847	1900
Adj Flow Rate, veh/h	98	54	38	1707	1527	76
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	2	3	3
Cap, veh/h	327	155	76	2378	2594	129
Arrive On Green	0.10	0.10	0.04	0.67	0.53	0.53
Sat Flow, veh/h	3408	1615	1810	3632	5087	245
Grp Volume(v), veh/h	98	54	38	1707	1043	560
Grp Sat Flow(s),veh/h/ln	1704	1615	1810	1770	1681	1804
Q Serve(g_s), s	1.2	1.4	0.9	13.4	9.3	9.3
Cycle Q Clear(g_c), s	1.2	1.4	0.9	13.4	9.3	9.3
Prop In Lane	1.00	1.00	1.00			0.14
Lane Grp Cap(c), veh/h	327	155	76	2378	1772	951
V/C Ratio(X)	0.30	0.35	0.50	0.72	0.59	0.59
Avail Cap(c_a), veh/h	1435	680	210	2522	1772	951
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	18.5	18.6	20.6	4.6	7.1	7.1
Incr Delay (d2), s/veh	0.5	1.3	4.9	1.0	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.7	0.5	6.7	4.3	4.8
LnGrp Delay(d),s/veh	19.0	19.9	25.5	5.6	7.7	8.2
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	152			1745	1603	
Approach Delay, s/veh	19.3			6.0	7.9	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		8.7	6.4	28.9				35.2
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		18.5	5.1	21.7				31.3
Max Q Clear Time (g_c+I1), s		3.4	2.9	11.3				15.4
Green Ext Time (p_c), s		0.4	0.0	10.1				14.1

Intersection Summary	
HCM 2010 Ctrl Delay	7.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	285	320	80	170	180	265	1250	75	230	1065	125
Future Volume (veh/h)	175	285	320	80	170	180	265	1250	75	230	1065	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1881	1863	1846	1900	1827	1858	1900	1863	1863	1827
Adj Flow Rate, veh/h	182	297	333	83	177	188	276	1302	78	240	1109	130
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	1	2	5	5	4	2	2	2	2	4
Cap, veh/h	214	875	391	95	317	275	351	1334	80	238	2160	647
Arrive On Green	0.12	0.25	0.25	0.05	0.18	0.18	0.10	0.39	0.39	0.13	0.42	0.42
Sat Flow, veh/h	1774	3539	1580	1774	1753	1523	3375	3383	202	1774	5085	1524
Grp Volume(v), veh/h	182	297	333	83	177	188	276	678	702	240	1109	130
Grp Sat Flow(s),veh/h/ln	1774	1770	1580	1774	1753	1523	1688	1765	1820	1774	1695	1524
Q Serve(g_s), s	11.2	7.7	22.4	5.2	10.3	12.9	8.9	42.2	42.4	15.0	17.9	6.0
Cycle Q Clear(g_c), s	11.2	7.7	22.4	5.2	10.3	12.9	8.9	42.2	42.4	15.0	17.9	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	214	875	391	95	317	275	351	696	718	238	2160	647
V/C Ratio(X)	0.85	0.34	0.85	0.87	0.56	0.68	0.79	0.97	0.98	1.01	0.51	0.20
Avail Cap(c_a), veh/h	318	983	439	95	317	275	454	696	718	238	2160	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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	34.5	40.1	52.4	41.7	42.7	48.8	33.2	33.3	48.3	23.6	20.2
Incr Delay (d2), s/veh	13.3	0.8	18.7	52.9	2.8	7.5	9.9	28.3	28.5	59.9	0.3	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	6.3	3.9	11.8	3.9	5.2	6.0	4.6	26.0	26.9	11.3	8.4	2.5
LnGrp Delay(d),s/veh	61.5	35.3	58.7	105.3	44.4	50.3	58.7	61.5	61.8	108.3	23.9	20.4
LnGrp LOS	E	D	E	F	D	D	E	E	E	F	C	C
Approach Vol, veh/h		812			448			1656			1479	
Approach Delay, s/veh		50.8			58.2			61.2			37.3	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	49.0	10.0	33.6	15.6	52.4	17.4	26.2
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	15.0	44.0	6.0	31.0	15.0	44.0	20.0	17.0
Max Q Clear Time (g_c+I1), s	17.0	44.4	7.2	24.4	10.9	19.9	13.2	14.9
Green Ext Time (p_c), s	0.0	0.0	0.0	2.9	0.7	23.1	0.3	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	50.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	105	145	35	40	25	140	595	75	25	510	90
Future Volume (veh/h)	70	105	145	35	40	25	140	595	75	25	510	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1644	1810	1900	1800	1900	1792	1804	1900	1597	1863	1863
Adj Flow Rate, veh/h	77	115	159	38	44	27	154	654	82	27	560	99
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	26	26	5	0	0	0	6	5	5	19	2	2
Cap, veh/h	65	64	516	68	54	542	189	713	89	43	693	576
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.11	0.45	0.45	0.03	0.37	0.37
Sat Flow, veh/h	0	189	1536	0	161	1614	1707	1572	197	1521	1863	1548
Grp Volume(v), veh/h	192	0	159	82	0	27	154	0	736	27	560	99
Grp Sat Flow(s),veh/h/ln	189	0	1536	161	0	1614	1707	0	1769	1521	1863	1548
Q Serve(g_s), s	0.0	0.0	5.9	0.0	0.0	0.9	6.8	0.0	30.0	1.4	20.8	3.3
Cycle Q Clear(g_c), s	25.9	0.0	5.9	25.9	0.0	0.9	6.8	0.0	30.0	1.4	20.8	3.3
Prop In Lane	0.40		1.00	0.46		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	129	0	516	122	0	542	189	0	803	43	693	576
V/C Ratio(X)	1.49	0.00	0.31	0.67	0.00	0.05	0.82	0.00	0.92	0.62	0.81	0.17
Avail Cap(c_a), veh/h	129	0	516	122	0	542	224	0	803	108	725	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)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	0.0	19.0	22.2	0.0	17.3	33.5	0.0	19.7	37.0	21.8	16.3
Incr Delay (d2), s/veh	256.0	0.0	0.4	13.8	0.0	0.0	18.4	0.0	16.1	15.9	8.2	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	11.9	0.0	2.5	2.2	0.0	0.4	4.2	0.0	18.1	0.8	12.2	1.5
LnGrp Delay(d),s/veh	282.5	0.0	19.4	36.1	0.0	17.3	51.9	0.0	35.8	52.9	29.9	16.6
LnGrp LOS	F		B	D		B	D		D	D	C	B
Approach Vol, veh/h		351			109			890			686	
Approach Delay, s/veh		163.3			31.4			38.6			28.9	
Approach LOS		F			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	40.4		30.4	12.6	34.1		30.4
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	5.5	34.6		25.9	10.1	30.0		25.9
Max Q Clear Time (g_c+I1), s	3.4	32.0		27.9	8.8	22.8		27.9
Green Ext Time (p_c), s	0.0	2.4		0.0	0.1	5.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	56.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	145	45	460	80	145	15	575	520	155	520	25
Future Volume (veh/h)	55	145	45	460	80	145	15	575	520	155	520	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1854	1881	1900	1845	1881	1827	1860	1900
Adj Flow Rate, veh/h	59	154	48	550	0	154	16	612	553	165	553	27
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	6	1	0	3	1	4	2	2
Cap, veh/h	199	300	90	742	0	329	27	1219	555	176	1487	72
Arrive On Green	0.11	0.11	0.11	0.21	0.00	0.21	0.01	0.35	0.35	0.10	0.43	0.43
Sat Flow, veh/h	1810	2726	820	3583	0	1587	1810	3505	1596	1740	3426	167
Grp Volume(v), veh/h	59	100	102	550	0	154	16	612	553	165	285	295
Grp Sat Flow(s),veh/h/ln	1810	1805	1742	1792	0	1587	1810	1752	1596	1740	1767	1826
Q Serve(g_s), s	2.4	4.1	4.4	11.4	0.0	6.7	0.7	10.9	27.3	7.4	8.6	8.6
Cycle Q Clear(g_c), s	2.4	4.1	4.4	11.4	0.0	6.7	0.7	10.9	27.3	7.4	8.6	8.6
Prop In Lane	1.00		0.47	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	199	199	192	742	0	329	27	1219	555	176	767	792
V/C Ratio(X)	0.30	0.50	0.53	0.74	0.00	0.47	0.59	0.50	1.00	0.94	0.37	0.37
Avail Cap(c_a), veh/h	641	639	617	1269	0	562	92	1219	555	176	767	792
HCM Platoon Ratio	1.00	1.00	1.00	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	32.4	33.1	33.3	29.4	0.0	27.5	38.7	20.4	25.7	35.3	15.1	15.1
Incr Delay (d2), s/veh	0.8	2.0	2.3	1.5	0.0	1.0	18.7	0.5	37.2	49.9	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	1.2	2.2	2.2	5.8	0.0	3.0	0.5	5.3	17.7	6.0	4.3	4.4
LnGrp Delay(d),s/veh	33.2	35.1	35.5	30.9	0.0	28.6	57.4	20.8	62.9	85.1	15.5	15.5
LnGrp LOS	C	D	D	C		C	E	C	E	F	B	B
Approach Vol, veh/h		261			704			1181			745	
Approach Delay, s/veh		34.8			30.4			41.0			30.9	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	32.5		13.7	5.2	39.3		20.9
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	8.0	27.5		28.0	4.0	31.5		28.0
Max Q Clear Time (g_c+I1), s	9.4	29.3		6.4	2.7	10.6		13.4
Green Ext Time (p_c), s	0.0	0.0		1.2	0.0	13.9		2.3

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	315	730	25	25	505	515	50	20	25	400	20	205
Future Volume (veh/h)	315	730	25	25	505	515	50	20	25	400	20	205
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1882	1900	1810	1881	1827	1900	1848	1900	1881	1876	1863
Adj Flow Rate, veh/h	335	777	27	27	537	0	53	21	27	441	0	218
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	5	1	4	0	0	0	1	4	2
Cap, veh/h	320	1570	55	39	1035	450	156	63	81	738	0	324
Arrive On Green	0.18	0.45	0.45	0.02	0.29	0.00	0.09	0.09	0.09	0.21	0.00	0.21
Sat Flow, veh/h	1792	3525	122	1723	3574	1553	1810	729	938	3583	0	1574
Grp Volume(v), veh/h	335	394	410	27	537	0	53	0	48	441	0	218
Grp Sat Flow(s),veh/h/ln	1792	1788	1860	1723	1787	1553	1810	0	1667	1792	0	1574
Q Serve(g_s), s	14.5	12.7	12.7	1.3	10.2	0.0	2.2	0.0	2.2	9.1	0.0	10.4
Cycle Q Clear(g_c), s	14.5	12.7	12.7	1.3	10.2	0.0	2.2	0.0	2.2	9.1	0.0	10.4
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	320	796	829	39	1035	450	156	0	144	738	0	324
V/C Ratio(X)	1.05	0.49	0.49	0.70	0.52	0.00	0.34	0.00	0.33	0.60	0.00	0.67
Avail Cap(c_a), veh/h	320	796	829	125	1187	516	156	0	144	1410	0	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)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.4	16.0	16.0	39.5	24.1	0.0	35.0	0.0	35.0	29.2	0.0	29.7
Incr Delay (d2), s/veh	63.6	1.7	1.7	20.2	1.5	0.0	5.8	0.0	6.2	1.1	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	12.7	6.6	6.9	0.8	5.2	0.0	1.4	0.0	1.3	4.6	0.0	4.8
LnGrp Delay(d),s/veh	97.0	17.8	17.7	59.6	25.6	0.0	40.8	0.0	41.1	30.3	0.0	33.2
LnGrp LOS	F	B	B	E	C		D		D	C		C
Approach Vol, veh/h		1139			564			101			659	
Approach Delay, s/veh		41.0			27.2			41.0			31.3	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.0	6.3	41.2		21.8	19.0	28.5
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		7.0	5.9	35.6		32.0	14.5	27.0
Max Q Clear Time (g_c+I1), s		4.2	3.3	14.7		12.4	16.5	12.2
Green Ext Time (p_c), s		0.1	0.0	16.3		3.7	0.0	11.2

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	725	470	445	895	0	0	0	0	45	5	190
Future Volume (veh/h)	0	725	470	445	895	0	0	0	0	45	5	190
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1845	1863	0				1827	1864	1900
Adj Flow Rate, veh/h	0	763	495	468	942	0				47	5	200
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	3	2	0				4	0	4
Cap, veh/h	0	1403	626	501	2632	0				268	6	239
Arrive On Green	0.00	0.40	0.40	0.29	0.74	0.00				0.15	0.15	0.15
Sat Flow, veh/h	0	3632	1580	1757	3632	0				1740	39	1551
Grp Volume(v), veh/h	0	763	495	468	942	0				47	0	205
Grp Sat Flow(s),veh/h/ln	0	1770	1580	1757	1770	0				1740	0	1590
Q Serve(g_s), s	0.0	14.9	24.8	23.4	8.4	0.0				2.1	0.0	11.3
Cycle Q Clear(g_c), s	0.0	14.9	24.8	23.4	8.4	0.0				2.1	0.0	11.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	1403	626	501	2632	0				268	0	245
V/C Ratio(X)	0.00	0.54	0.79	0.93	0.36	0.00				0.18	0.00	0.84
Avail Cap(c_a), veh/h	0	1403	626	554	2632	0				445	0	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.54	0.54	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.9	23.9	31.3	4.0	0.0				33.1	0.0	37.0
Incr Delay (d2), s/veh	0.0	1.3	8.4	13.5	0.2	0.0				0.1	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.6	12.2	13.2	4.1	0.0				1.0	0.0	5.2
LnGrp Delay(d),s/veh	0.0	22.2	32.3	44.9	4.2	0.0				33.2	0.0	40.2
LnGrp LOS		C	C	D	A					C		D
Approach Vol, veh/h		1258			1410						252	
Approach Delay, s/veh		26.2			17.7						38.9	
Approach LOS		C			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	31.3	40.8		18.0		72.0		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	28.4	23.8		23.0		57.8		
Max Q Clear Time (g_c+I1), s	25.4	26.8		13.3		10.4		
Green Ext Time (p_c), s	0.3	0.0		0.6		13.6		

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	565	0	0	855	100	480	5	410	0	0	0
Future Volume (veh/h)	205	565	0	0	855	100	480	5	410	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1881	1881	0	0	1845	1900	1845	1828	1827			
Adj Flow Rate, veh/h	228	628	0	0	950	111	677	0	306			
Adj No. of Lanes	1	2	0	0	2	1	2	0	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	1	1	0	0	3	0	3	33	4			
Cap, veh/h	278	2121	0	0	1313	605	873	0	386			
Arrive On Green	0.16	0.59	0.00	0.00	0.37	0.37	0.25	0.00	0.25			
Sat Flow, veh/h	1792	3668	0	0	3597	1615	3514	0	1553			
Grp Volume(v), veh/h	228	628	0	0	950	111	677	0	306			
Grp Sat Flow(s),veh/h/ln	1792	1787	0	0	1752	1615	1757	0	1553			
Q Serve(g_s), s	6.8	4.8	0.0	0.0	12.8	2.5	9.9	0.0	10.1			
Cycle Q Clear(g_c), s	6.8	4.8	0.0	0.0	12.8	2.5	9.9	0.0	10.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	278	2121	0	0	1313	605	873	0	386			
V/C Ratio(X)	0.82	0.30	0.00	0.00	0.72	0.18	0.78	0.00	0.79			
Avail Cap(c_a), veh/h	309	2121	0	0	1313	605	952	0	421			
HCM Platoon Ratio	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	0.00	0.00	0.91	0.91	1.00	0.00	1.00			
Uniform Delay (d), s/veh	22.5	5.5	0.0	0.0	14.8	11.5	19.2	0.0	19.4			
Incr Delay (d2), s/veh	11.4	0.3	0.0	0.0	3.2	0.6	4.1	0.0	10.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.2	2.4	0.0	0.0	6.6	1.2	5.3	0.0	5.4			
LnGrp Delay(d),s/veh	33.9	5.8	0.0	0.0	17.9	12.2	23.4	0.0	29.4			
LnGrp LOS	C	A			B	B	C		C			
Approach Vol, veh/h		856			1061			983				
Approach Delay, s/veh		13.3			17.3			25.3				
Approach LOS		B			B			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		37.2			12.0	25.2		17.8
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		31.4			9.5	18.4		14.9
Max Q Clear Time (g_c+I1), s		6.8			8.8	14.8		12.1
Green Ext Time (p_c), s		9.0			0.0	2.5		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	710	205	40	710	0	245	0	55	0	0	0
Future Volume (veh/h)	60	710	205	40	710	0	245	0	55	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1867	1900	1900	1845	0	1900	0	1900			
Adj Flow Rate, veh/h	65	772	223	43	772	0	266	0	60			
Adj No. of Lanes	1	3	0	1	3	0	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	3	0	0	0	0			
Cap, veh/h	136	1763	504	68	2078	0	361	0	322			
Arrive On Green	0.08	0.45	0.45	0.04	0.41	0.00	0.20	0.00	0.20			
Sat Flow, veh/h	1810	3915	1118	1810	5202	0	1810	0	1615			
Grp Volume(v), veh/h	65	669	326	43	772	0	266	0	60			
Grp Sat Flow(s),veh/h/ln	1810	1699	1635	1810	1679	0	1810	0	1615			
Q Serve(g_s), s	1.5	5.8	5.9	1.0	4.6	0.0	6.0	0.0	1.3			
Cycle Q Clear(g_c), s	1.5	5.8	5.9	1.0	4.6	0.0	6.0	0.0	1.3			
Prop In Lane	1.00		0.68	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	136	1531	737	68	2078	0	361	0	322			
V/C Ratio(X)	0.48	0.44	0.44	0.64	0.37	0.00	0.74	0.00	0.19			
Avail Cap(c_a), veh/h	252	1531	737	235	2217	0	902	0	805			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	19.1	8.1	8.1	20.5	8.8	0.0	16.2	0.0	14.4			
Incr Delay (d2), s/veh	2.6	0.5	1.2	9.5	0.3	0.0	3.0	0.0	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			
%ile BackOfQ(50%),veh/ln	0.8	2.8	2.9	0.7	2.1	0.0	3.3	0.0	0.6			
LnGrp Delay(d),s/veh	21.7	8.7	9.3	30.0	9.1	0.0	19.2	0.0	14.6			
LnGrp LOS	C	A	A	C	A		B		B			
Approach Vol, veh/h		1060			815			326				
Approach Delay, s/veh		9.7			10.2			18.3				
Approach LOS		A			B			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	5.6	24.4			7.2	22.8		13.1
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.6	19.4			6.0	19.0		21.5
Max Q Clear Time (g_c+I1), s	3.0	7.9			3.5	6.6		8.0
Green Ext Time (p_c), s	0.0	10.5			0.0	11.2		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	10	1533	1480	0
Future Vol, veh/h	0	0	10	1533	1480	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	-	-	135	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	10	1580	1526	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	763	1526	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	0	301	221	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	301	221	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	221	-	-	-	-
HCM Lane V/C Ratio	0.047	-	-	-	-
HCM Control Delay (s)	22.1	-	0	-	-
HCM Lane LOS	C	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	255	90	210	185	70	40	465	405	145	300	120
Future Volume (veh/h)	140	255	90	210	185	70	40	465	405	145	300	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1872	1900	1863	1863	1900	1810	1863	1900	1863	1840	1900
Adj Flow Rate, veh/h	152	277	98	228	201	76	43	505	440	158	326	130
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	2	5	2	2	2	1	1
Cap, veh/h	186	279	99	254	324	123	63	440	384	355	1005	393
Arrive On Green	0.10	0.21	0.21	0.14	0.25	0.25	0.04	0.25	0.25	0.20	0.41	0.41
Sat Flow, veh/h	1810	1322	468	1774	1289	487	1723	1794	1563	1774	2456	961
Grp Volume(v), veh/h	152	0	375	228	0	277	43	498	447	158	230	226
Grp Sat Flow(s),veh/h/ln	1810	0	1790	1774	0	1777	1723	1770	1587	1774	1748	1670
Q Serve(g_s), s	7.4	0.0	18.8	11.4	0.0	12.4	2.2	22.1	22.1	7.0	8.1	8.3
Cycle Q Clear(g_c), s	7.4	0.0	18.8	11.4	0.0	12.4	2.2	22.1	22.1	7.0	8.1	8.3
Prop In Lane	1.00		0.26	1.00		0.27	1.00		0.98	1.00		0.58
Lane Grp Cap(c), veh/h	186	0	378	254	0	447	63	435	390	355	715	683
V/C Ratio(X)	0.82	0.00	0.99	0.90	0.00	0.62	0.68	1.15	1.15	0.45	0.32	0.33
Avail Cap(c_a), veh/h	227	0	378	254	0	447	126	435	390	355	715	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	0.49	0.00	0.49	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	0.0	35.4	37.9	0.0	29.9	42.8	34.0	34.0	31.6	18.1	18.2
Incr Delay (d2), s/veh	17.1	0.0	44.2	18.2	0.0	1.3	12.2	89.7	91.9	4.0	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	4.6	0.0	13.9	6.9	0.0	6.2	1.3	21.6	19.6	3.8	4.1	4.1
LnGrp Delay(d),s/veh	56.7	0.0	79.6	56.1	0.0	31.2	55.0	123.7	125.9	35.6	19.3	19.5
LnGrp LOS	E		E	E		C	E	F	F	D	B	B
Approach Vol, veh/h		527			505			988			614	
Approach Delay, s/veh		73.0			42.4			121.7			23.6	
Approach LOS		E			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	26.6	17.4	23.5	7.8	41.3	13.8	27.1
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	18.0	22.1	12.9	19.0	6.6	33.5	11.3	20.6
Max Q Clear Time (g_c+I1), s	9.0	24.1	13.4	20.8	4.2	10.3	9.4	14.4
Green Ext Time (p_c), s	0.3	0.0	0.0	0.0	0.0	10.3	0.1	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	73.9
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	685	80	25	550	10	95	5	25	25	5	85
Future Volume (veh/h)	30	685	80	25	550	10	95	5	25	25	5	85
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1867	1900	1900	1863	1900	1900	1795	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	721	84	26	579	11	100	5	26	26	48	60
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	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, %	0	2	2	0	2	2	0	0	0	0	0	0
Cap, veh/h	66	1800	208	56	2081	39	162	23	117	59	109	146
Arrive On Green	0.04	0.39	0.39	0.03	0.40	0.40	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1810	4633	536	1810	5140	97	1810	252	1311	656	1211	1615
Grp Volume(v), veh/h	32	527	278	26	382	208	100	0	31	74	0	60
Grp Sat Flow(s),veh/h/ln	1810	1699	1772	1810	1696	1846	1810	0	1563	1867	0	1615
Q Serve(g_s), s	0.8	5.0	5.1	0.6	3.4	3.4	2.4	0.0	0.8	1.7	0.0	1.6
Cycle Q Clear(g_c), s	0.8	5.0	5.1	0.6	3.4	3.4	2.4	0.0	0.8	1.7	0.0	1.6
Prop In Lane	1.00		0.30	1.00		0.05	1.00		0.84	0.35		1.00
Lane Grp Cap(c), veh/h	66	1320	688	56	1373	748	162	0	140	169	0	146
V/C Ratio(X)	0.48	0.40	0.40	0.47	0.28	0.28	0.62	0.00	0.22	0.44	0.00	0.41
Avail Cap(c_a), veh/h	201	1966	1026	201	1963	1069	1208	0	1044	291	0	252
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	21.2	9.9	10.0	21.4	9.0	9.0	19.7	0.0	19.0	19.4	0.0	19.3
Incr Delay (d2), s/veh	5.3	0.7	1.4	5.9	0.4	0.7	3.8	0.0	0.8	1.8	0.0	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	0.5	2.5	2.7	0.4	1.7	1.9	1.4	0.0	0.4	0.9	0.0	0.8
LnGrp Delay(d),s/veh	26.6	10.7	11.3	27.3	9.4	9.7	23.5	0.0	19.8	21.1	0.0	21.1
LnGrp LOS	C	B	B	C	A	A	C		B	C		C
Approach Vol, veh/h		837			616			131			134	
Approach Delay, s/veh		11.5			10.2			22.6			21.1	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.4	22.5		8.0	5.6	23.2		8.1
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 26		30.0	5.0	26.0		7.0
Max Q Clear Time (g_c+I1), s	2.6	7.1		4.4	2.8	5.4		3.7
Green Ext Time (p_c), s	1.4	10.3		0.4	0.0	8.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	53.9

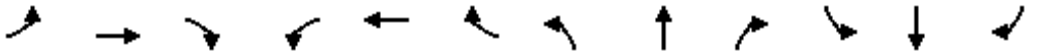
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	98	90	52	1445	1424	56
Future Vol, veh/h	98	90	52	1445	1424	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160	-	-	-
Veh in Median Storage, #	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	107	98	57	1571	1548	61

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2476	804	1609	0	-	0
Stage 1	1578	-	-	-	-	-
Stage 2	898	-	-	-	-	-
Critical Hdwy	6.29	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	~ 36	280	197	-	-	-
Stage 1	107	-	-	-	-	-
Stage 2	349	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 26	280	197	-	-	-
Mov Cap-2 Maneuver	~ 26	-	-	-	-	-
Stage 1	107	-	-	-	-	-
Stage 2	248	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 898.5	1.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	197	-	26	280	-	-
HCM Lane V/C Ratio	0.287	-	4.097	0.349	-	-
HCM Control Delay (s)	30.5	-	$ 1701	24.6	-	-
HCM Lane LOS	D	-	F	C	-	-
HCM 95th %tile Q(veh)	1.1	-	13.1	1.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	340	620	340	145	5	1010	10	355	5	5	15
Future Volume (veh/h)	5	340	620	340	145	5	1010	10	355	5	5	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1624	1792	1810	1863	1796	1900	1827	1795	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	420	0	420	179	6	1247	12	438	6	6	19
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	17	6	5	2	6	6	4	0	0	0	0	0
Cap, veh/h	11	332	285	281	580	19	890	21	763	44	10	31
Arrive On Green	0.01	0.19	0.00	0.16	0.34	0.34	0.51	0.51	0.51	0.02	0.02	0.02
Sat Flow, veh/h	1547	1792	1538	1774	1728	58	1740	41	1491	1810	402	1273
Grp Volume(v), veh/h	6	420	0	420	0	185	1247	0	450	6	0	25
Grp Sat Flow(s),veh/h/ln	1547	1792	1538	1774	0	1786	1740	0	1532	1810	0	1675
Q Serve(g_s), s	0.6	27.5	0.0	23.5	0.0	11.4	76.0	0.0	30.2	0.5	0.0	2.2
Cycle Q Clear(g_c), s	0.6	27.5	0.0	23.5	0.0	11.4	76.0	0.0	30.2	0.5	0.0	2.2
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.97	1.00		0.76
Lane Grp Cap(c), veh/h	11	332	285	281	0	600	890	0	783	44	0	41
V/C Ratio(X)	0.53	1.27	0.00	1.50	0.00	0.31	1.40	0.00	0.57	0.14	0.00	0.61
Avail Cap(c_a), veh/h	52	332	285	281	0	600	890	0	783	61	0	56
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	73.5	60.6	0.0	62.6	0.0	36.6	36.3	0.0	25.1	71.0	0.0	71.8
Incr Delay (d2), s/veh	32.7	141.6	0.0	241.6	0.0	0.3	187.4	0.0	1.0	1.4	0.0	14.1
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	0.3	26.6	0.0	30.3	0.0	5.7	82.7	0.0	13.0	0.3	0.0	1.2
LnGrp Delay(d),s/veh	106.2	202.2	0.0	304.2	0.0	36.9	223.7	0.0	26.1	72.4	0.0	85.9
LnGrp LOS	F	F		F		D	F		C	E		F
Approach Vol, veh/h		426			605			1697			31	
Approach Delay, s/veh		200.8			222.4			171.3			83.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		80.5	28.0	32.0		8.1	5.6	54.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		76.0	23.5	27.5		5.0	5.0	46.0
Max Q Clear Time (g_c+I1), s		78.0	25.5	29.5		4.2	2.6	13.4
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	4.1

Intersection Summary		
HCM 2010 Ctrl Delay		186.1
HCM 2010 LOS		F

HCM 2010 Signalized Intersection Summary
27: Sierra College Boulevard/Sierra College Blvd & English Colony Way

01/21/2019

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	30	270	1150	10	180	955
Future Volume (veh/h)	30	270	1150	10	180	955
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1845	1900	1696	1827
Adj Flow Rate, veh/h	31	281	1198	10	188	995
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	3	3	12	4
Cap, veh/h	36	326	1511	13	227	2207
Arrive On Green	0.22	0.22	0.42	0.42	0.14	0.64
Sat Flow, veh/h	162	1466	3655	30	1616	3563
Grp Volume(v), veh/h	313	0	589	619	188	995
Grp Sat Flow(s),veh/h/ln	1633	0	1753	1840	1616	1736
Q Serve(g_s), s	11.7	0.0	18.5	18.5	7.2	9.3
Cycle Q Clear(g_c), s	11.7	0.0	18.5	18.5	7.2	9.3
Prop In Lane	0.10	0.90		0.02	1.00	
Lane Grp Cap(c), veh/h	363	0	744	780	227	2207
V/C Ratio(X)	0.86	0.00	0.79	0.79	0.83	0.45
Avail Cap(c_a), veh/h	467	0	772	810	268	2351
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.7	0.0	15.8	15.8	26.5	5.9
Incr Delay (d2), s/veh	12.5	0.0	5.5	5.3	16.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	10.0	10.4	4.2	4.3
LnGrp Delay(d),s/veh	36.2	0.0	21.3	21.1	43.2	6.0
LnGrp LOS	D		C	C	D	A
Approach Vol, veh/h	313		1208			1183
Approach Delay, s/veh	36.2		21.2			11.9
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.4	31.4				44.8		18.6
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	10.5	27.9				42.9		18.1
Max Q Clear Time (g_c+I1), s	9.2	20.5				11.3		13.7
Green Ext Time (p_c), s	0.1	6.4				20.7		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	46.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	10	5	40	0	5	5	955	270	100	1240	5
Future Vol, veh/h	0	10	5	40	0	5	5	955	270	100	1240	5
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	-	-	30	-	-	30	105	-	-	105	-	-
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, %	0	0	0	0	0	0	0	4	8	0	4	50
Mvmt Flow	0	11	5	43	0	5	5	1038	293	109	1348	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2098	2910	677	2093	2767	666	1353	0	0	1332	0	0
Stage 1	1568	1568	-	1196	1196	-	-	-	-	-	-	-
Stage 2	530	1342	-	897	1571	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	30	16	400	~ 31	20	407	515	-	-	525	-	-
Stage 1	118	173	-	201	262	-	-	-	-	-	-	-
Stage 2	506	223	-	305	173	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	25	13	400	~ 8	16	407	515	-	-	525	-	-
Mov Cap-2 Maneuver	25	13	-	~ 8	16	-	-	-	-	-	-	-
Stage 1	117	137	-	199	259	-	-	-	-	-	-	-
Stage 2	494	221	-	219	137	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 384.6	$ 2580	0	1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	515	-	-	13	400	8	407	525	-	-
HCM Lane V/C Ratio	0.011	-	-	0.836	0.014	5.435	0.013	0.207	-	-
HCM Control Delay (s)	12.1	-	-	$ 569.9	14.3	$ 2900.7	14	13.6	-	-
HCM Lane LOS	B	-	-	F	B	F	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	1.9	0	6.8	0	0.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	65	200	60	15	10	110	285	50	15	185	105
Future Volume (veh/h)	310	65	200	60	15	10	110	285	50	15	185	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1854	1881	1900	1874	1900	1900	1855	1900	1900	1845	1827
Adj Flow Rate, veh/h	508	107	328	98	25	16	180	467	82	25	303	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Percent Heavy Veh, %	0	0	1	0	0	0	0	2	2	0	3	4
Cap, veh/h	541	114	588	121	31	20	211	530	93	44	466	392
Arrive On Green	0.37	0.37	0.37	0.10	0.10	0.10	0.12	0.34	0.34	0.02	0.25	0.00
Sat Flow, veh/h	1471	310	1599	1251	319	204	1810	1537	270	1810	1845	1553
Grp Volume(v), veh/h	615	0	328	139	0	0	180	0	549	25	303	0
Grp Sat Flow(s),veh/h/ln	1781	0	1599	1775	0	0	1810	0	1807	1810	1845	1553
Q Serve(g_s), s	36.2	0.0	17.7	8.3	0.0	0.0	10.6	0.0	31.0	1.5	15.9	0.0
Cycle Q Clear(g_c), s	36.2	0.0	17.7	8.3	0.0	0.0	10.6	0.0	31.0	1.5	15.9	0.0
Prop In Lane	0.83		1.00	0.71		0.12	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	655	0	588	172	0	0	211	0	623	44	466	392
V/C Ratio(X)	0.94	0.00	0.56	0.81	0.00	0.00	0.85	0.00	0.88	0.57	0.65	0.00
Avail Cap(c_a), veh/h	681	0	612	295	0	0	252	0	623	85	466	392
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.1	0.0	27.3	48.0	0.0	0.0	47.0	0.0	33.4	52.3	36.2	0.0
Incr Delay (d2), s/veh	20.6	0.0	1.0	8.6	0.0	0.0	20.9	0.0	16.4	10.9	6.9	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	21.5	0.0	8.0	4.5	0.0	0.0	6.5	0.0	18.2	0.9	9.0	0.0
LnGrp Delay(d),s/veh	53.7	0.0	28.3	56.5	0.0	0.0	67.9	0.0	49.8	63.2	43.1	0.0
LnGrp LOS	D		C	E			E		D	E	D	
Approach Vol, veh/h		943			139			729			328	
Approach Delay, s/veh		44.9			56.5			54.3			44.7	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.1	41.9		44.4	17.1	31.9		15.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.1	37.4		41.5	15.1	27.4		18.0
Max Q Clear Time (g_c+I1), s	3.5	33.0		38.2	12.6	17.9		10.3
Green Ext Time (p_c), s	0.0	2.1		1.7	0.1	3.8		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	48.8
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	11	23	357	379	2
Future Vol, veh/h	1	11	23	357	379	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	3	2	0
Mvmt Flow	1	12	26	397	421	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	870	422	423	0	-	0
Stage 1	422	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	325	636	1126	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	648	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	317	636	1126	-	-	-
Mov Cap-2 Maneuver	317	-	-	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	633	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1126	-	587	-	-
HCM Lane V/C Ratio	0.023	-	0.023	-	-
HCM Control Delay (s)	8.3	-	11.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	5	105	275	20	245	145
Future Volume (veh/h)	5	105	275	20	245	145
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1814	1900	1863	1845
Adj Flow Rate, veh/h	5	114	299	22	266	158
Adj No. of Lanes	0	0	1	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	4	4	2	3
Cap, veh/h	6	146	718	53	327	1312
Arrive On Green	0.09	0.09	0.43	0.43	0.18	0.71
Sat Flow, veh/h	68	1543	1669	123	1774	1845
Grp Volume(v), veh/h	120	0	0	321	266	158
Grp Sat Flow(s),veh/h/ln	1624	0	0	1792	1774	1845
Q Serve(g_s), s	3.4	0.0	0.0	5.8	6.7	1.3
Cycle Q Clear(g_c), s	3.4	0.0	0.0	5.8	6.7	1.3
Prop In Lane	0.04	0.95		0.07	1.00	
Lane Grp Cap(c), veh/h	154	0	0	771	327	1312
V/C Ratio(X)	0.78	0.00	0.00	0.42	0.81	0.12
Avail Cap(c_a), veh/h	630	0	0	771	401	1312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	0.0	9.2	18.2	2.1
Incr Delay (d2), s/veh	8.2	0.0	0.0	1.7	10.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	3.2	4.2	0.7
LnGrp Delay(d),s/veh	28.7	0.0	0.0	10.8	28.3	2.3
LnGrp LOS	C			B	C	A
Approach Vol, veh/h	120		321			424
Approach Delay, s/veh	28.7		10.8			18.6
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.0	24.5				37.5		8.9
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	10.5	18.0				33.0		18.0
Max Q Clear Time (g_c+I1), s	8.7	7.8				3.3		5.4
Green Ext Time (p_c), s	0.2	2.1				3.1		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.1
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	0	375	5	0	148
Future Vol, veh/h	5	0	375	5	0	148
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	48	48	48	48	48	48
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	10	0	781	10	0	308

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1094	786	0	0	792	0
Stage 1	786	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	239	395	-	-	838	-
Stage 1	453	-	-	-	-	-
Stage 2	750	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	239	395	-	-	838	-
Mov Cap-2 Maneuver	239	-	-	-	-	-
Stage 1	453	-	-	-	-	-
Stage 2	750	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	239	-	838	-
HCM Lane V/C Ratio	-	-	0.044	-	-	-
HCM Control Delay (s)	-	-	20.7	0	0	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	-	0	-

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	0	1	29	0	13	2	367	35	13	140	0
Future Vol, veh/h	0	0	1	29	0	13	2	367	35	13	140	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	51	51	51	51	51	51	51	51	51	51	51	51
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	2	0
Mvmt Flow	0	0	2	57	0	25	4	720	69	25	275	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1100	1121	275	1088	1087	754	275	0	0	788	0	0
Stage 1	325	325	-	762	762	-	-	-	-	-	-	-
Stage 2	775	796	-	326	325	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	191	208	769	195	218	412	1300	-	-	840	-	-
Stage 1	692	653	-	400	416	-	-	-	-	-	-	-
Stage 2	394	402	-	691	653	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	175	201	769	190	211	412	1300	-	-	840	-	-
Mov Cap-2 Maneuver	175	201	-	190	211	-	-	-	-	-	-	-
Stage 1	690	634	-	399	415	-	-	-	-	-	-	-
Stage 2	368	401	-	669	634	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	29.5	0	0.8
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1300	-	-	769	228	840	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003	0.361	0.03	-	-
HCM Control Delay (s)	7.8	-	-	9.7	29.5	9.4	-	-
HCM Lane LOS	A	-	-	A	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	1.6	0.1	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	17	387	69	7	163
Future Vol, veh/h	68	17	387	69	7	163
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	131	33	744	133	13	313

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1151	811	0	0	877	0
Stage 1	811	-	-	-	-	-
Stage 2	340	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	221	383	-	-	779	-
Stage 1	440	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	217	383	-	-	779	-
Mov Cap-2 Maneuver	338	-	-	-	-	-
Stage 1	440	-	-	-	-	-
Stage 2	713	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.8	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	338	383	779	-
HCM Lane V/C Ratio	-	-	0.387	0.085	0.017	-
HCM Control Delay (s)	-	-	22.2	15.3	9.7	-
HCM Lane LOS	-	-	C	C	A	-
HCM 95th %tile Q(veh)	-	-	1.8	0.3	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	29	440	230	1
Future Vol, veh/h	0	17	29	440	230	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	12	10	1	1	0
Mvmt Flow	0	31	53	800	418	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1324	419	420	0	-	0
Stage 1	419	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Critical Hdwy	6.4	6.32	4.2	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.408	2.29	-	-	-
Pot Cap-1 Maneuver	174	613	1097	-	-	-
Stage 1	668	-	-	-	-	-
Stage 2	398	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	166	613	1097	-	-	-
Mov Cap-2 Maneuver	288	-	-	-	-	-
Stage 1	668	-	-	-	-	-
Stage 2	379	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1097	-	613	-	-
HCM Lane V/C Ratio	0.048	-	0.05	-	-
HCM Control Delay (s)	8.4	-	11.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	11.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	141	10	5	20	80	780	5	5	610	10
Future Vol, veh/h	0	0	141	10	5	20	80	780	5	5	610	10
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	50	4	22	0	5	1	2	0	0	2	13
Mvmt Flow	0	0	193	14	7	27	110	1068	7	7	836	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	836	2140	2140	1072	836	0	0	1075	0	0
Stage 1	-	-	-	1291	1291	-	-	-	-	-	-	-
Stage 2	-	-	-	849	849	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	7.32	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	3.698	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	364	31	50	264	802	-	-	656	-	-
Stage 1	0	0	-	182	236	-	-	-	-	-	-	-
Stage 2	0	0	-	329	380	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	364	~ 13	43	264	802	-	-	656	-	-
Mov Cap-2 Maneuver	-	-	-	~ 13	43	-	-	-	-	-	-	-
Stage 1	-	-	-	157	204	-	-	-	-	-	-	-
Stage 2	-	-	-	153	376	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	25.5	$ 435.6	0.9	0.1
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	802	-	-	364	36	656	-	-
HCM Lane V/C Ratio	0.137	-	-	0.531	1.332	0.01	-	-
HCM Control Delay (s)	10.2	-	-	25.5	$ 435.6	10.5	-	-
HCM Lane LOS	B	-	-	D	F	B	-	-
HCM 95th %tile Q(veh)	0.5	-	-	3	5.1	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Cumulative Conditions – Long Term Plus Project

Project Driveway Option A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	130	307	236	190	145	257	483	96	70	618	195
Future Volume (veh/h)	160	130	307	236	190	145	257	483	96	70	618	195
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1727	1727	1827	1840	1900	1827	1863	1863	1900	1818	1900
Adj Flow Rate, veh/h	184	149	353	271	218	167	295	555	110	80	710	224
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	10	10	4	5	5	4	2	2	0	5	5
Cap, veh/h	378	372	309	375	207	159	288	706	591	101	678	214
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.17	0.38	0.38	0.06	0.27	0.27
Sat Flow, veh/h	1757	1727	1433	1740	963	737	1740	1863	1560	1810	2555	806
Grp Volume(v), veh/h	184	149	353	271	0	385	295	555	110	80	480	454
Grp Sat Flow(s),veh/h/ln	1757	1727	1433	1740	0	1700	1740	1863	1560	1810	1727	1634
Q Serve(g_s), s	11.9	9.6	28.0	18.8	0.0	28.0	21.5	34.3	6.1	5.7	34.5	34.5
Cycle Q Clear(g_c), s	11.9	9.6	28.0	18.8	0.0	28.0	21.5	34.3	6.1	5.7	34.5	34.5
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	378	372	309	375	0	366	288	706	591	101	458	434
V/C Ratio(X)	0.49	0.40	1.14	0.72	0.00	1.05	1.03	0.79	0.19	0.79	1.05	1.05
Avail Cap(c_a), veh/h	378	372	309	375	0	366	288	706	591	111	458	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)	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	44.7	43.8	51.0	47.4	0.0	51.0	54.3	35.7	27.0	60.6	47.8	47.8
Incr Delay (d2), s/veh	0.4	0.3	95.9	5.9	0.0	61.2	59.7	5.4	0.1	25.7	54.9	56.1
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	5.8	4.6	19.3	9.6	0.0	19.3	15.1	18.6	2.6	3.6	23.4	22.3
LnGrp Delay(d),s/veh	45.1	44.1	146.9	53.3	0.0	112.2	114.0	41.1	27.0	86.4	102.6	103.8
LnGrp LOS	D	D	F	D		F	F	D	C	F	F	F
Approach Vol, veh/h		686			656			960			1014	
Approach Delay, s/veh		97.3			87.8			61.9			101.9	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.3	54.7		32.0	26.0	40.0		32.0
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	8.0	48.5		28.0	21.5	34.5		28.0
Max Q Clear Time (g_c+I1), s	7.7	36.3		30.0	23.5	36.5		30.0
Green Ext Time (p_c), s	0.0	5.7		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	86.6
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	10	5	5	5	425	0	487	5	535	782	10
Future Volume (veh/h)	55	10	5	5	5	425	0	487	5	535	782	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1658	1900	1900	1900	1827	1900	1827	1827	1827	1794	1900
Adj Flow Rate, veh/h	59	11	5	5	5	457	0	524	5	575	841	11
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	4	0	4	4	4	6	6
Cap, veh/h	219	37	13	218	199	862	2	562	471	603	1236	16
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.00	0.31	0.31	0.35	0.70	0.70
Sat Flow, veh/h	699	175	62	746	952	1545	1810	1827	1533	1740	1766	23
Grp Volume(v), veh/h	75	0	0	10	0	457	0	524	5	575	0	852
Grp Sat Flow(s),veh/h/ln	937	0	0	1698	0	1545	1810	1827	1533	1740	0	1789
Q Serve(g_s), s	5.2	0.0	0.0	0.0	0.0	16.4	0.0	24.5	0.2	28.4	0.0	24.0
Cycle Q Clear(g_c), s	5.7	0.0	0.0	0.4	0.0	16.4	0.0	24.5	0.2	28.4	0.0	24.0
Prop In Lane	0.79		0.07	0.50		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	269	0	0	417	0	862	2	562	471	603	0	1252
V/C Ratio(X)	0.28	0.00	0.00	0.02	0.00	0.53	0.00	0.93	0.01	0.95	0.00	0.68
Avail Cap(c_a), veh/h	270	0	0	418	0	863	113	592	496	613	0	1252
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	0.0	27.6	0.0	12.3	0.0	29.6	21.2	28.0	0.0	7.6
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.0	0.0	0.6	0.0	21.4	0.0	24.9	0.0	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	1.6	0.0	0.0	0.2	0.0	7.0	0.0	15.7	0.1	17.8	0.0	12.1
LnGrp Delay(d),s/veh	30.2	0.0	0.0	27.7	0.0	12.9	0.0	51.0	21.2	53.0	0.0	9.1
LnGrp LOS	C			C		B		D	C	D		A
Approach Vol, veh/h		75			467			529			1427	
Approach Delay, s/veh		30.2			13.2			50.7			26.8	
Approach LOS		C			B			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.5	31.1		22.4	0.0	65.6		22.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	31.0	28.5		18.5	5.5	54.0		18.5
Max Q Clear Time (g_c+I1), s	30.4	26.5		7.7	0.0	26.0		18.4
Green Ext Time (p_c), s	0.1	0.6		1.8	0.0	12.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	29.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	25	60	30	55	20	280	480	90	30	100	620
Future Volume (veh/h)	30	25	60	30	55	20	280	480	90	30	100	620
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1849	1845	1863	1795	1900	1863	1838	1900	1900	1810	1810
Adj Flow Rate, veh/h	33	27	66	33	60	22	308	527	99	33	110	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	3	2	8	8	2	4	4	0	5	5
Cap, veh/h	112	92	178	193	136	50	382	1113	208	70	365	310
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.22	0.38	0.38	0.04	0.20	0.00
Sat Flow, veh/h	990	810	1568	1774	1254	460	1774	2938	550	1810	1810	1538
Grp Volume(v), veh/h	60	0	66	33	0	82	308	312	314	33	110	0
Grp Sat Flow(s),veh/h/ln	1800	0	1568	1774	0	1714	1774	1746	1741	1810	1810	1538
Q Serve(g_s), s	1.2	0.0	1.5	0.7	0.0	1.8	6.5	5.4	5.4	0.7	2.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	1.5	0.7	0.0	1.8	6.5	5.4	5.4	0.7	2.0	0.0
Prop In Lane	0.55		1.00	1.00		0.27	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	204	0	178	193	0	186	382	661	660	70	365	310
V/C Ratio(X)	0.29	0.00	0.37	0.17	0.00	0.44	0.81	0.47	0.48	0.47	0.30	0.00
Avail Cap(c_a), veh/h	1089	0	949	823	0	795	895	1620	1616	297	1063	904
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	16.1	0.0	16.3	16.1	0.0	16.5	14.8	9.3	9.3	18.7	13.5	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.5	0.2	0.0	0.6	1.5	0.3	0.3	1.9	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	0.6	0.0	0.7	0.3	0.0	0.9	3.3	2.6	2.6	0.4	1.0	0.0
LnGrp Delay(d),s/veh	16.4	0.0	16.7	16.2	0.0	17.2	16.3	9.6	9.6	20.5	13.7	0.0
LnGrp LOS	B		B	B		B	B	A	A	C	B	
Approach Vol, veh/h		126			115			934			143	
Approach Delay, s/veh		16.6			16.9			11.8			15.3	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	18.7		8.0	11.5	11.7		8.4
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	6.5	36.8		24.0	20.0	23.3		18.4
Max Q Clear Time (g_c+I1), s	2.7	7.4		3.5	8.5	4.0		3.8
Green Ext Time (p_c), s	0.0	3.5		0.2	0.3	3.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	80.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	205	310	540	120	35	155
Future Vol, veh/h	205	310	540	120	35	155
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	91	91	91	91	91	91
Heavy Vehicles, %	2	4	3	6	10	2
Mvmt Flow	225	341	593	132	38	170

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	840	593	0	0	593	0
Stage 1	593	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	6.42	6.24	-	-	4.2	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	-	-	2.29	-
Pot Cap-1 Maneuver	335	502	-	-	945	-
Stage 1	552	-	-	-	-	-
Stage 2	794	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	320	502	-	-	945	-
Mov Cap-2 Maneuver	320	-	-	-	-	-
Stage 1	552	-	-	-	-	-
Stage 2	759	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	213.9	0	1.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	409	945	-
HCM Lane V/C Ratio	-	-	1.384	0.041	-
HCM Control Delay (s)	-	-	213.9	9	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	27.4	0.1	-

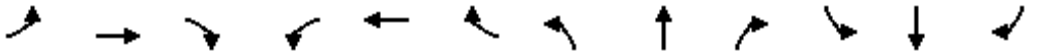
Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	86	16	110	386	46	35
Future Vol, veh/h	86	16	110	386	46	35
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	88	88	88	88	88	88
Heavy Vehicles, %	4	9	7	3	18	6
Mvmt Flow	98	18	125	439	52	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	116	0	796	107
Stage 1	-	-	-	-	107	-
Stage 2	-	-	-	-	689	-
Critical Hdwy	-	-	4.17	-	6.58	6.26
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.263	-	3.662	3.354
Pot Cap-1 Maneuver	-	-	1442	-	335	936
Stage 1	-	-	-	-	879	-
Stage 2	-	-	-	-	470	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1442	-	296	936
Mov Cap-2 Maneuver	-	-	-	-	296	-
Stage 1	-	-	-	-	879	-
Stage 2	-	-	-	-	416	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	420	-	-	1442	-
HCM Lane V/C Ratio	0.219	-	-	0.087	-
HCM Control Delay (s)	16	-	-	7.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.3	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	110	82	467	355	65	227	667	212	60	1497	250
Future Volume (veh/h)	85	110	82	467	355	65	227	667	212	60	1497	250
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1743	1863	1743	1810	1727	1792	1810	1827	1863	1881
Adj Flow Rate, veh/h	90	117	87	497	378	69	241	710	226	64	1593	266
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	9	2	9	5	10	6	5	4	2	1
Cap, veh/h	104	279	231	473	405	353	226	1792	1021	81	1541	794
Arrive On Green	0.06	0.16	0.16	0.14	0.23	0.23	0.14	0.53	0.53	0.05	0.44	0.44
Sat Flow, veh/h	1707	1792	1482	3442	1743	1518	1645	3406	1538	1740	3539	1599
Grp Volume(v), veh/h	90	117	87	497	378	69	241	710	226	64	1593	266
Grp Sat Flow(s),veh/h/ln	1707	1792	1482	1721	1743	1518	1645	1703	1538	1740	1770	1599
Q Serve(g_s), s	7.8	8.8	7.9	20.5	31.7	5.5	20.5	18.6	8.6	5.4	65.0	15.0
Cycle Q Clear(g_c), s	7.8	8.8	7.9	20.5	31.7	5.5	20.5	18.6	8.6	5.4	65.0	15.0
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	104	279	231	473	405	353	226	1792	1021	81	1541	794
V/C Ratio(X)	0.86	0.42	0.38	1.05	0.93	0.20	1.07	0.40	0.22	0.79	1.03	0.34
Avail Cap(c_a), veh/h	104	288	238	473	413	360	226	1792	1021	141	1541	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	56.9	56.5	64.4	56.2	46.1	64.4	21.2	9.9	70.4	42.1	22.7
Incr Delay (d2), s/veh	48.5	2.1	2.2	55.6	28.9	0.6	78.6	0.3	0.2	15.5	32.0	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	5.1	4.5	3.4	13.4	18.6	2.3	14.2	8.9	3.7	3.0	38.5	6.7
LnGrp Delay(d),s/veh	118.0	59.0	58.7	119.9	85.1	46.7	143.0	21.5	10.1	86.0	74.2	23.2
LnGrp LOS	F	E	E	F	F	D	F	C	B	F	F	C
Approach Vol, veh/h		294			944			1177			1923	
Approach Delay, s/veh		77.0			100.6			44.2			67.5	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	84.1	25.0	28.8	25.0	70.5	13.6	40.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	12.1	73.4	20.5	24.0	20.5	65.0	9.1	35.4
Max Q Clear Time (g_c+I1), s	7.4	20.6	22.5	10.8	22.5	67.0	9.8	33.7
Green Ext Time (p_c), s	0.0	49.3	0.0	5.2	0.0	0.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	69.0
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	65	295	0	222	0	859	25	80	1881	55
Future Volume (vph)	0	0	65	295	0	222	0	859	25	80	1881	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes			0.97	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1432	1770		1495		4893	1583	1736	5066	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1432	1770		1495		4893	1583	1736	5066	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	69	314	0	236	0	914	27	85	2001	59
RTOR Reduction (vph)	0	0	67	0	0	159	0	0	10	0	5	0
Lane Group Flow (vph)	0	0	2	314	0	77	0	914	17	85	2055	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			1.7	13.1		19.3		23.2	36.3	3.3	30.5	
Effective Green, g (s)			1.7	13.1		19.3		23.2	36.3	3.3	30.5	
Actuated g/C Ratio			0.03	0.22		0.33		0.39	0.61	0.06	0.51	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			41	391		486		1914	969	96	2605	
v/s Ratio Prot				c0.18				0.19	0.00	0.05	c0.41	
v/s Ratio Perm			0.00			c0.05			0.01			
v/c Ratio			0.05	0.80		0.16		0.48	0.02	0.89	0.79	
Uniform Delay, d1			28.0	21.9		14.2		13.5	4.5	27.8	11.8	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.5	11.3		0.2		0.3	0.0	55.0	1.8	
Delay (s)			28.5	33.2		14.4		13.8	4.5	82.8	13.5	
Level of Service			C	C		B		B	A	F	B	
Approach Delay (s)		28.5			25.1			13.5			16.3	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	59.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	10	125	160	30	25	350	1012	90	80	1966	148
Future Volume (veh/h)	73	10	125	160	30	25	350	1012	90	80	1966	148
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1776	1881	1743	1845	1863
Adj Flow Rate, veh/h	76	10	130	167	31	26	365	1054	94	83	2048	154
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	1	9	3	2
Cap, veh/h	97	130	183	197	234	205	401	2011	952	105	2138	663
Arrive On Green	0.06	0.07	0.07	0.12	0.14	0.14	0.23	0.60	0.60	0.06	0.42	0.42
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	3374	1598	1660	5036	1562
Grp Volume(v), veh/h	76	10	130	167	31	26	365	1054	94	83	2048	154
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1687	1598	1660	1679	1562
Q Serve(g_s), s	5.3	0.6	6.0	11.5	1.8	1.8	24.1	21.3	2.9	5.7	45.8	7.3
Cycle Q Clear(g_c), s	5.3	0.6	6.0	11.5	1.8	1.8	24.1	21.3	2.9	5.7	45.8	7.3
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	97	130	183	197	234	205	401	2011	952	105	2138	663
V/C Ratio(X)	0.79	0.08	0.71	0.85	0.13	0.13	0.91	0.52	0.10	0.79	0.96	0.23
Avail Cap(c_a), veh/h	425	451	634	425	447	390	662	2011	952	286	2171	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)	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	53.9	49.9	52.4	50.0	44.1	44.1	43.2	13.8	10.1	53.6	32.4	21.3
Incr Delay (d2), s/veh	13.1	0.2	5.0	9.7	0.3	0.3	10.8	0.5	0.1	12.6	11.3	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	2.8	0.3	2.2	5.8	0.9	0.7	12.6	9.9	1.3	3.0	23.3	3.2
LnGrp Delay(d),s/veh	67.0	50.2	57.4	59.8	44.4	44.4	54.0	14.2	10.1	66.2	43.7	21.7
LnGrp LOS	E	D	E	E	D	D	D	B	B	E	D	C
Approach Vol, veh/h		216			224			1513			2285	
Approach Delay, s/veh		60.5			55.8			23.6			43.0	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	74.1	17.9	12.7	31.2	54.2	10.8	19.7
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	7.7	23.3	13.5	8.0	26.1	47.8	7.3	3.8
Green Ext Time (p_c), s	0.1	26.4	0.4	0.8	1.1	1.5	0.2	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	65	735	55	402	80	1045	150	0	2201	50
Future Volume (veh/h)	5	0	65	735	55	402	80	1045	150	0	2201	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1759	1845	1796	1776	1827	1792	1681	0	1696	1900
Adj Flow Rate, veh/h	5	0	71	799	0	477	87	1136	163	0	2392	54
Adj No. of Lanes	1	0	1	2	0	2	1	3	1	0	3	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
Percent Heavy Veh, %	0	0	8	3	2	7	4	6	13	0	12	0
Cap, veh/h	11	0	0	847	0	606	99	3341	976	0	2750	959
Arrive On Green	0.01	0.00	0.00	0.24	0.00	0.20	0.02	0.23	0.23	0.00	0.59	0.59
Sat Flow, veh/h	1810	5		3514	0	3019	1740	4893	1429	0	4784	1615
Grp Volume(v), veh/h	5	81.9		799	0	477	87	1136	163	0	2392	54
Grp Sat Flow(s),veh/h/ln	1810	F		1757	0	1509	1740	1631	1429	0	1544	1615
Q Serve(g_s), s	0.4			32.6	0.0	21.9	7.3	28.4	13.4	0.0	63.4	2.1
Cycle Q Clear(g_c), s	0.4			32.6	0.0	21.9	7.3	28.4	13.4	0.0	63.4	2.1
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	11			847	0	606	99	3341	976	0	2750	959
V/C Ratio(X)	0.44			0.94	0.00	0.79	0.88	0.34	0.17	0.00	0.87	0.06
Avail Cap(c_a), veh/h	62			1179	0	806	99	3341	976	0	2750	959
HCM Platoon Ratio	1.00			1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00			1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.34	0.34
Uniform Delay (d), s/veh	72.3			54.4	0.0	55.4	71.1	28.9	23.1	0.0	24.9	12.5
Incr Delay (d2), s/veh	9.6			10.2	0.0	2.7	52.5	0.3	0.4	0.0	1.4	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
%ile BackOfQ(50%),veh/ln	0.2			17.1	0.0	9.4	5.0	13.0	5.4	0.0	27.2	0.9
LnGrp Delay(d),s/veh	81.9			64.6	0.0	58.1	123.7	29.2	23.5	0.0	26.3	12.5
LnGrp LOS	F			E		E	F	C	C		C	B
Approach Vol, veh/h					1276			1386			2446	
Approach Delay, s/veh					62.2			34.5			26.0	
Approach LOS					E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		105.9	40.1		13.0	92.9	5.5	34.6
Change Period (Y+Rc), s		6.2	4.9		* 4.7	6.2	4.6	5.3
Max Green Setting (Gmax), s		85.9	49.0		* 8.3	72.9	5.0	39.0
Max Q Clear Time (g_c+I1), s		30.4	34.6		9.3	65.4	2.4	23.9
Green Ext Time (p_c), s		25.0	0.6		0.0	6.4	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	37.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	551	115	425	15	0	30	0	1175	35	220	1990	231
Future Volume (veh/h)	551	115	425	15	0	30	0	1175	35	220	1990	231
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1845	1776	1845	0	1863	0	1667	1792	1863	1863	1743
Adj Flow Rate, veh/h	599	125	462	16	0	33	0	1277	38	239	2163	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	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
Percent Heavy Veh, %	7	3	7	3	0	2	0	14	6	2	2	9
Cap, veh/h	1106	1008	434	32	0	0	0	2723	724	284	2084	873
Arrive On Green	0.34	0.29	0.29	0.02	0.00	0.00	0.00	0.47	0.47	0.11	0.78	0.00
Sat Flow, veh/h	3281	3505	1509	1757	16		0	5967	1524	3442	3539	1482
Grp Volume(v), veh/h	599	125	462	16	75.6		0	1277	38	239	2163	0
Grp Sat Flow(s),veh/h/ln	1640	1752	1509	1757	E		0	1433	1524	1721	1770	1482
Q Serve(g_s), s	21.6	3.8	42.0	1.3			0.0	22.0	1.6	9.9	86.0	0.0
Cycle Q Clear(g_c), s	21.6	3.8	42.0	1.3			0.0	22.0	1.6	9.9	86.0	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1106	1008	434	32			0	2723	724	284	2084	873
V/C Ratio(X)	0.54	0.12	1.06	0.51			0.00	0.47	0.05	0.84	1.04	0.00
Avail Cap(c_a), veh/h	1106	1008	434	84			0	2723	724	389	2084	873
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00			0.00	0.96	0.96	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.2	38.4	52.0	71.0			0.0	25.9	14.0	64.1	15.8	0.0
Incr Delay (d2), s/veh	0.4	0.0	61.2	4.6			0.0	0.6	0.1	8.8	30.3	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
%ile BackOfQ(50%),veh/ln	9.9	1.9	24.9	0.7			0.0	8.8	0.7	5.1	49.5	0.0
LnGrp Delay(d),s/veh	39.7	38.4	113.2	75.7			0.0	26.4	14.2	72.9	46.1	0.0
LnGrp LOS	D	D	F	E				C	B	E	F	
Approach Vol, veh/h		1186						1315			2402	
Approach Delay, s/veh		68.2						26.1			48.8	
Approach LOS		E						C			D	

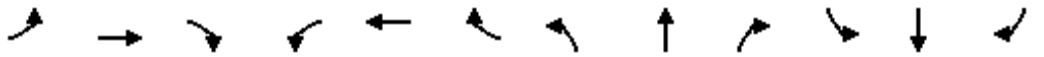
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	16.6	75.5	7.2	46.6		92.2	53.8	
Change Period (Y+Rc), s	4.6	6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	16.5	60.5	7.0	42.0		81.6	33.7	
Max Q Clear Time (g_c+I1), s	11.9	24.0	3.3	44.0		88.0	23.6	
Green Ext Time (p_c), s	0.1	20.0	0.0	0.0		0.0	1.4	

Intersection Summary	
HCM 2010 Ctrl Delay	47.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	5	65	15	5	70	60	1010	20	0	2245	185
Future Volume (veh/h)	130	5	65	15	5	70	60	1010	20	0	2245	185
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1891	1532	1863	1776	1900	0	1810	1863
Adj Flow Rate, veh/h	141	5	71	16	5	76	65	1098	22	0	2440	201
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	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
Percent Heavy Veh, %	2	2	2	2	2	24	2	7	7	0	5	2
Cap, veh/h	166	10	140	98	31	92	65	4634	93	0	2335	1075
Arrive On Green	0.09	0.09	0.09	0.07	0.07	0.07	0.04	0.75	0.75	0.00	0.68	0.68
Sat Flow, veh/h	1774	105	1494	1388	434	1302	1774	6213	124	0	3529	1583
Grp Volume(v), veh/h	141	0	76	21	0	76	65	809	311	0	2440	201
Grp Sat Flow(s),veh/h/ln	1774	0	1599	1822	0	1302	1774	1528	1754	0	1719	1583
Q Serve(g_s), s	11.7	0.0	6.8	1.6	0.0	8.6	5.5	8.2	8.2	0.0	101.9	7.0
Cycle Q Clear(g_c), s	11.7	0.0	6.8	1.6	0.0	8.6	5.5	8.2	8.2	0.0	101.9	7.0
Prop In Lane	1.00		0.93	0.76		1.00	1.00		0.07	0.00		1.00
Lane Grp Cap(c), veh/h	166	0	150	129	0	92	65	3418	1308	0	2335	1075
V/C Ratio(X)	0.85	0.00	0.51	0.16	0.00	0.83	1.00	0.24	0.24	0.00	1.05	0.19
Avail Cap(c_a), veh/h	213	0	192	219	0	156	65	3418	1308	0	2335	1075
HCM Platoon Ratio	1.00	1.00	1.00	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	0.88	0.88	0.88	0.00	0.15	0.15
Uniform Delay (d), s/veh	66.9	0.0	64.7	65.5	0.0	68.8	72.2	5.9	5.9	0.0	24.1	8.8
Incr Delay (d2), s/veh	21.8	0.0	2.6	0.6	0.0	16.6	104.4	0.1	0.4	0.0	22.7	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	6.8	0.0	3.1	0.8	0.0	3.5	4.6	3.5	4.1	0.0	55.4	3.1
LnGrp Delay(d),s/veh	88.7	0.0	67.3	66.1	0.0	85.4	176.6	6.0	6.3	0.0	46.8	8.9
LnGrp LOS	F		E	E		F	F	A	A		F	A
Approach Vol, veh/h		217			97			1185			2641	
Approach Delay, s/veh		81.2			81.2			15.4			43.9	
Approach LOS		F			F			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		116.4		18.5	10.0	106.4		15.1
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		100.5		18.0	5.5	90.5		18.0
Max Q Clear Time (g_c+I1), s		10.2		13.7	7.5	103.9		10.6
Green Ext Time (p_c), s		81.1		0.3	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	38.6
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	35	240	105	120	10	290	955	75	60	2040	225
Future Volume (veh/h)	125	35	240	105	120	10	290	955	75	60	2040	225
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1267	1900	1900	1597	1900	1520	1900	1792	1743	1387	1827	1429
Adj Flow Rate, veh/h	136	38	261	114	130	11	315	1038	82	65	2217	245
Adj No. of Lanes	1	1	1	2	1	1	1	3	1	1	2	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
Percent Heavy Veh, %	50	0	0	19	0	25	0	6	9	37	4	33
Cap, veh/h	102	352	299	156	292	198	233	2729	826	77	1692	591
Arrive On Green	0.08	0.19	0.19	0.05	0.15	0.15	0.13	0.56	0.56	0.06	0.49	0.49
Sat Flow, veh/h	1206	1900	1615	2950	1900	1292	1810	4893	1480	1321	3471	1213
Grp Volume(v), veh/h	136	38	261	114	130	11	315	1038	82	65	2217	245
Grp Sat Flow(s),veh/h/ln	1206	1900	1615	1475	1900	1292	1810	1631	1480	1321	1736	1213
Q Serve(g_s), s	11.5	2.3	21.3	5.2	8.4	1.0	17.5	16.2	3.5	6.6	66.2	17.6
Cycle Q Clear(g_c), s	11.5	2.3	21.3	5.2	8.4	1.0	17.5	16.2	3.5	6.6	66.2	17.6
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	102	352	299	156	292	198	233	2729	826	77	1692	591
V/C Ratio(X)	1.33	0.11	0.87	0.73	0.45	0.06	1.35	0.38	0.10	0.84	1.31	0.41
Avail Cap(c_a), veh/h	102	495	421	241	490	333	233	2729	826	155	1692	591
HCM Platoon Ratio	1.00	1.00	1.00	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	62.2	46.0	53.8	63.4	52.3	49.1	59.2	16.9	14.1	63.3	34.8	22.4
Incr Delay (d2), s/veh	201.7	0.2	14.4	6.5	1.3	0.1	183.7	0.1	0.1	20.8	144.1	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	9.5	1.2	10.7	2.2	4.5	0.4	20.6	7.3	1.5	2.9	65.3	6.0
LnGrp Delay(d),s/veh	263.8	46.2	68.2	69.8	53.5	49.2	242.8	17.0	14.1	84.1	179.0	22.9
LnGrp LOS	F	D	E	E	D	D	F	B	B	F	F	C
Approach Vol, veh/h		435			255			1435			2527	
Approach Delay, s/veh		127.4			60.6			66.4			161.4	
Approach LOS		F			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	81.6	11.7	30.2	22.0	72.0	16.0	25.8
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	15.9	67.8	11.1	35.4	17.5	66.2	11.5	35.0
Max Q Clear Time (g_c+I1), s	8.6	18.2	7.2	23.3	19.5	68.2	13.5	10.4
Green Ext Time (p_c), s	0.1	47.1	0.1	1.8	0.0	0.0	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	123.4
HCM 2010 LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	15	175	1220	1765	785
Future Volume (veh/h)	40	15	175	1220	1765	785
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1900	1900	1810	1836	1900
Adj Flow Rate, veh/h	53	20	230	1605	2322	1033
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	5	0	0	5	5	5
Cap, veh/h	116	56	254	3058	2542	989
Arrive On Green	0.03	0.03	0.14	0.89	0.72	0.72
Sat Flow, veh/h	3343	1615	1810	3529	3717	1382
Grp Volume(v), veh/h	53	20	230	1605	2165	1190
Grp Sat Flow(s),veh/h/ln	1672	1615	1810	1719	1671	1591
Q Serve(g_s), s	2.1	1.6	16.8	13.0	70.4	96.3
Cycle Q Clear(g_c), s	2.1	1.6	16.8	13.0	70.4	96.3
Prop In Lane	1.00	1.00	1.00			0.87
Lane Grp Cap(c), veh/h	116	56	254	3058	2392	1139
V/C Ratio(X)	0.46	0.36	0.91	0.52	0.91	1.04
Avail Cap(c_a), veh/h	484	234	262	3074	2392	1139
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	63.7	63.5	57.0	1.5	15.4	19.1
Incr Delay (d2), s/veh	2.8	3.8	31.5	0.2	5.5	39.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.8	10.7	6.1	33.7	54.1
LnGrp Delay(d),s/veh	66.5	67.3	88.5	1.7	20.9	58.2
LnGrp LOS	E	E	F	A	C	F
Approach Vol, veh/h	73			1835	3355	
Approach Delay, s/veh	66.7			12.6	34.1	
Approach LOS	E			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		9.2	23.4	102.0				125.4
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		19.5	19.5	96.3				120.3
Max Q Clear Time (g_c+I1), s		4.1	18.8	98.3				15.0
Green Ext Time (p_c), s		0.1	0.0	0.0				104.5

Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	580	225	185	387	291	488	997	110	151	1172	307
Future Volume (veh/h)	107	580	225	185	387	291	488	997	110	151	1172	307
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1863	1845	1900	1863	1900	1881	1779	1900	1696	1827	1827
Adj Flow Rate, veh/h	116	630	245	201	421	316	530	1084	120	164	1274	334
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	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
Percent Heavy Veh, %	6	2	3	0	2	2	1	7	7	12	4	4
Cap, veh/h	142	1000	438	158	549	408	438	1071	118	157	1596	487
Arrive On Green	0.08	0.28	0.28	0.09	0.29	0.29	0.13	0.35	0.35	0.10	0.32	0.32
Sat Flow, veh/h	1707	3539	1551	1810	1916	1426	3476	3067	339	1616	4988	1520
Grp Volume(v), veh/h	116	630	245	201	389	348	530	597	607	164	1274	334
Grp Sat Flow(s),veh/h/ln	1707	1770	1551	1810	1770	1572	1738	1690	1716	1616	1663	1520
Q Serve(g_s), s	6.9	16.0	13.9	9.0	20.7	21.0	13.0	36.0	36.0	10.0	24.1	19.7
Cycle Q Clear(g_c), s	6.9	16.0	13.9	9.0	20.7	21.0	13.0	36.0	36.0	10.0	24.1	19.7
Prop In Lane	1.00		1.00	1.00		0.91	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	142	1000	438	158	507	450	438	590	599	157	1596	487
V/C Ratio(X)	0.82	0.63	0.56	1.27	0.77	0.77	1.21	1.01	1.01	1.05	0.80	0.69
Avail Cap(c_a), veh/h	166	1064	466	158	515	457	438	590	599	157	1596	487
HCM Platoon Ratio	1.00	1.00	1.00	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	46.5	32.3	31.5	47.1	33.7	33.7	45.1	33.6	33.6	46.6	32.0	30.6
Incr Delay (d2), s/veh	23.2	2.5	4.1	162.9	7.2	8.5	114.0	40.0	40.2	84.9	3.1	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	8.1	6.4	11.6	11.2	10.2	13.1	23.3	23.7	8.1	11.4	8.9
LnGrp Delay(d),s/veh	69.6	34.8	35.6	209.9	40.9	42.2	159.0	73.5	73.8	131.5	35.1	35.0
LnGrp LOS	E	C	D	F	D	D	F	F	F	F	D	D
Approach Vol, veh/h		991			938			1734			1772	
Approach Delay, s/veh		39.1			77.6			99.8			44.0	
Approach LOS		D			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	41.0	13.0	35.1	17.0	38.0	12.6	35.5
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	10.0	36.0	9.0	31.0	13.0	33.0	10.0	30.0
Max Q Clear Time (g_c+I1), s	12.0	38.0	11.0	18.0	15.0	26.1	8.9	23.0
Green Ext Time (p_c), s	0.0	0.0	0.0	10.8	0.0	6.8	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	66.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	40	125	90	310	60	270	292	165	60	647	90
Future Volume (veh/h)	20	40	125	90	310	60	270	292	165	60	647	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1477	1484	1900	1722	1792	1712	1696	1900	1387	1776	1727
Adj Flow Rate, veh/h	22	44	137	99	341	66	297	321	181	66	711	99
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	33	33	28	9	9	6	11	7	7	37	7	10
Cap, veh/h	44	54	350	40	37	422	298	546	308	78	732	592
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.18	0.54	0.54	0.06	0.41	0.41
Sat Flow, veh/h	0	193	1259	0	132	1522	1630	1019	575	1321	1776	1436
Grp Volume(v), veh/h	66	0	137	440	0	66	297	0	502	66	711	99
Grp Sat Flow(s),veh/h/ln	193	0	1259	132	0	1522	1630	0	1594	1321	1776	1436
Q Serve(g_s), s	0.0	0.0	9.7	0.0	0.0	3.6	20.0	0.0	23.5	5.4	43.1	4.8
Cycle Q Clear(g_c), s	30.5	0.0	9.7	30.5	0.0	3.6	20.0	0.0	23.5	5.4	43.1	4.8
Prop In Lane	0.33		1.00	0.22		1.00	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	97	0	350	77	0	422	298	0	854	78	732	592
V/C Ratio(X)	0.68	0.00	0.39	5.73	0.00	0.16	1.00	0.00	0.59	0.85	0.97	0.17
Avail Cap(c_a), veh/h	97	0	350	77	0	422	298	0	854	151	734	593
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	0.0	32.2	40.9	0.0	30.0	44.9	0.0	17.3	51.2	31.7	20.4
Incr Delay (d2), s/veh	18.0	0.0	0.8	2154.6	0.0	0.2	51.0	0.0	2.0	23.7	26.6	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	2.0	0.0	3.4	48.3	0.0	1.5	13.1	0.0	10.7	2.5	26.5	2.0
LnGrp Delay(d),s/veh	51.2	0.0	33.0	2195.5	0.0	30.2	95.8	0.0	19.3	74.9	58.3	20.8
LnGrp LOS	D		C	F		C	F		B	E	E	C
Approach Vol, veh/h		203			506			799			876	
Approach Delay, s/veh		38.9			1913.1			47.7			55.3	
Approach LOS		D			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.6	64.3		35.0	24.2	50.7		35.0
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	12.6	52.9		30.5	20.1	45.4		30.5
Max Q Clear Time (g_c+I1), s	7.4	25.5		32.5	22.0	45.1		32.5
Green Ext Time (p_c), s	0.1	19.5		0.0	0.0	0.2		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		445.7
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	90	60	732	205	195	55	699	812	250	649	24
Future Volume (veh/h)	29	90	60	732	205	195	55	699	812	250	649	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1624	1881	1900	1845	1837	1863	1863	1792	1863	1827	1780	1900
Adj Flow Rate, veh/h	32	100	67	520	637	217	61	777	902	278	721	27
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	17	1	1	3	4	2	2	6	2	4	7	7
Cap, veh/h	130	178	110	521	545	467	78	1202	558	222	1449	54
Arrive On Green	0.08	0.08	0.08	0.30	0.30	0.30	0.04	0.35	0.35	0.13	0.44	0.44
Sat Flow, veh/h	1547	2110	1301	1757	1837	1575	1774	3406	1581	1740	3321	124
Grp Volume(v), veh/h	32	83	84	520	637	217	61	777	902	278	367	381
Grp Sat Flow(s),veh/h/ln	1547	1787	1624	1757	1837	1575	1774	1703	1581	1740	1691	1755
Q Serve(g_s), s	2.6	6.0	6.6	39.4	39.5	15.0	4.5	25.5	47.0	17.0	20.8	20.8
Cycle Q Clear(g_c), s	2.6	6.0	6.6	39.4	39.5	15.0	4.5	25.5	47.0	17.0	20.8	20.8
Prop In Lane	1.00		0.80	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	130	150	137	521	545	467	78	1202	558	222	738	765
V/C Ratio(X)	0.25	0.55	0.61	1.00	1.17	0.46	0.78	0.65	1.62	1.25	0.50	0.50
Avail Cap(c_a), veh/h	325	376	341	521	545	467	146	1202	558	222	738	765
HCM Platoon Ratio	1.00	1.00	1.00	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	57.0	58.6	58.9	46.8	46.9	38.2	63.0	36.1	43.1	58.1	27.0	27.0
Incr Delay (d2), s/veh	1.0	3.2	4.4	38.9	94.6	0.7	15.2	1.4	286.1	144.9	0.7	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	1.1	3.1	3.1	24.7	34.3	6.6	2.5	12.2	64.8	17.1	9.8	10.2
LnGrp Delay(d),s/veh	58.0	61.8	63.3	85.8	141.5	38.9	78.2	37.5	329.2	203.0	27.8	27.8
LnGrp LOS	E	E	E	F	F	D	E	D	F	F	C	C
Approach Vol, veh/h		199			1374			1740			1026	
Approach Delay, s/veh		61.8			104.2			190.1			75.3	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	52.0		16.2	9.9	63.1		44.0
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	17.0	47.0		28.0	11.0	53.0		39.5
Max Q Clear Time (g_c+I1), s	19.0	49.0		8.6	6.5	22.8		41.5
Green Ext Time (p_c), s	0.0	0.0		0.9	0.0	24.4		0.0

Intersection Summary		
HCM 2010 Ctrl Delay	129.9	
HCM 2010 LOS	F	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	1045	15	15	1105	460	20	10	10	370	15	193
Future Volume (veh/h)	138	1045	15	15	1105	460	20	10	10	370	15	193
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1881	1900	1792	1863	1827	1900	1659	1900	1759	1769	1776
Adj Flow Rate, veh/h	159	1201	17	17	1270	0	23	11	11	437	0	222
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	1	1	6	2	4	0	12	12	8	0	7
Cap, veh/h	202	1658	23	27	1278	561	158	66	66	705	0	316
Arrive On Green	0.11	0.46	0.46	0.02	0.36	0.00	0.09	0.09	0.09	0.21	0.00	0.21
Sat Flow, veh/h	1774	3609	51	1707	3539	1553	1810	757	757	3351	0	1501
Grp Volume(v), veh/h	159	595	623	17	1270	0	23	0	22	437	0	222
Grp Sat Flow(s),veh/h/ln	1774	1787	1872	1707	1770	1553	1810	0	1513	1675	0	1501
Q Serve(g_s), s	7.5	23.1	23.2	0.9	30.7	0.0	1.0	0.0	1.2	10.2	0.0	11.8
Cycle Q Clear(g_c), s	7.5	23.1	23.2	0.9	30.7	0.0	1.0	0.0	1.2	10.2	0.0	11.8
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	202	821	860	27	1278	561	158	0	132	705	0	316
V/C Ratio(X)	0.79	0.72	0.72	0.64	0.99	0.00	0.15	0.00	0.17	0.62	0.00	0.70
Avail Cap(c_a), veh/h	207	821	860	99	1278	561	158	0	132	1249	0	559
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.0	18.8	18.8	42.0	27.3	0.0	36.2	0.0	36.3	30.8	0.0	31.4
Incr Delay (d2), s/veh	17.7	4.9	4.7	23.0	23.7	0.0	1.9	0.0	2.7	1.3	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	4.7	12.5	13.1	0.6	19.0	0.0	0.6	0.0	0.6	4.8	0.0	5.2
LnGrp Delay(d),s/veh	54.8	23.7	23.5	65.0	51.0	0.0	38.1	0.0	39.0	32.0	0.0	35.4
LnGrp LOS	D	C	C	E	D		D		D	C		D
Approach Vol, veh/h		1377			1287			45			659	
Approach Delay, s/veh		27.2			51.2			38.5			33.2	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.5	5.8	44.4		23.1	14.3	36.0
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		7.5	5.0	36.0		32.0	10.0	31.0
Max Q Clear Time (g_c+I1), s		3.2	2.9	25.2		13.8	9.5	32.7
Green Ext Time (p_c), s		0.0	0.0	10.7		3.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	930	465	330	1215	0	0	0	0	95	0	390
Future Volume (veh/h)	0	930	465	330	1215	0	0	0	0	95	0	390
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1810	1881	1845	0				1827	1827	1900
Adj Flow Rate, veh/h	0	1045	522	371	1365	0				107	0	438
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	5	1	3	0				4	0	4
Cap, veh/h	0	1255	544	404	2251	0				445	0	397
Arrive On Green	0.00	0.35	0.35	0.23	0.64	0.00				0.26	0.00	0.26
Sat Flow, veh/h	0	3632	1534	1792	3597	0				1740	0	1553
Grp Volume(v), veh/h	0	1045	522	371	1365	0				107	0	438
Grp Sat Flow(s),veh/h/ln	0	1770	1534	1792	1752	0				1740	0	1553
Q Serve(g_s), s	0.0	24.3	30.0	18.2	20.5	0.0				4.4	0.0	23.0
Cycle Q Clear(g_c), s	0.0	24.3	30.0	18.2	20.5	0.0				4.4	0.0	23.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1255	544	404	2251	0				445	0	397
V/C Ratio(X)	0.00	0.83	0.96	0.92	0.61	0.00				0.24	0.00	1.10
Avail Cap(c_a), veh/h	0	1255	544	426	2251	0				445	0	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.65	0.65	0.30	0.30	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.6	28.4	34.0	9.4	0.0				26.6	0.0	33.5
Incr Delay (d2), s/veh	0.0	4.4	22.9	9.1	0.4	0.0				0.1	0.0	76.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.7	16.1	10.0	10.0	0.0				2.1	0.0	18.2
LnGrp Delay(d),s/veh	0.0	31.0	51.3	43.2	9.8	0.0				26.7	0.0	109.7
LnGrp LOS		C	D	D	A					C		F
Approach Vol, veh/h		1567			1736						545	
Approach Delay, s/veh		37.8			16.9						93.4	
Approach LOS		D			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	25.9	37.0		27.1		62.9		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	21.4	30.8		23.0		57.8		
Max Q Clear Time (g_c+I1), s	20.2	32.0		25.0		22.5		
Green Ext Time (p_c), s	0.1	0.0		0.0		20.7		

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	835	0	0	990	65	555	5	1295	0	0	0
Future Volume (veh/h)	190	835	0	0	990	65	555	5	1295	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1863	0	0	1863	1863	1845	1878	1881			
Adj Flow Rate, veh/h	211	928	0	0	1100	72	413	0	1661			
Adj No. of Lanes	1	2	0	0	2	1	1	0	2			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	3	2	0	0	2	2	3	0	1			
Cap, veh/h	216	1654	0	0	1107	495	797	0	1451			
Arrive On Green	0.12	0.47	0.00	0.00	0.31	0.31	0.45	0.00	0.45			
Sat Flow, veh/h	1757	3632	0	0	3632	1583	1757	0	3198			
Grp Volume(v), veh/h	211	928	0	0	1100	72	413	0	1661			
Grp Sat Flow(s),veh/h/ln	1757	1770	0	0	1770	1583	1757	0	1599			
Q Serve(g_s), s	13.2	20.8	0.0	0.0	34.1	3.6	18.5	0.0	49.9			
Cycle Q Clear(g_c), s	13.2	20.8	0.0	0.0	34.1	3.6	18.5	0.0	49.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	216	1654	0	0	1107	495	797	0	1451			
V/C Ratio(X)	0.98	0.56	0.00	0.00	0.99	0.15	0.52	0.00	1.14			
Avail Cap(c_a), veh/h	216	1654	0	0	1107	495	797	0	1451			
HCM Platoon Ratio	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	0.00	0.00	0.89	0.89	1.00	0.00	1.00			
Uniform Delay (d), s/veh	48.1	21.2	0.0	0.0	37.7	27.2	21.5	0.0	30.0			
Incr Delay (d2), s/veh	39.5	0.8	0.0	0.0	24.1	0.5	0.8	0.0	73.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.8	10.4	0.0	0.0	20.4	1.7	9.1	0.0	36.8			
LnGrp Delay(d),s/veh	87.6	21.9	0.0	0.0	61.8	27.8	22.3	0.0	103.9			
LnGrp LOS	F	C			E	C	C		F			
Approach Vol, veh/h		1139			1172			2074				
Approach Delay, s/veh		34.1			59.7			87.7				
Approach LOS		C			E			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		56.0			17.0	39.0		54.0
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		51.4			13.5	34.4		49.9
Max Q Clear Time (g_c+I1), s		22.8			15.2	36.1		51.9
Green Ext Time (p_c), s		13.2			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	66.3
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1895	185	31	745	0	310	0	71	0	0	0
Future Volume (veh/h)	50	1895	185	31	745	0	310	0	71	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1866	1900	1583	1863	0	1845	0	1638			
Adj Flow Rate, veh/h	57	2178	213	36	856	0	356	0	82			
Adj No. of Lanes	1	3	0	1	3	0	1	0	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	1	1	20	2	0	3	0	16			
Cap, veh/h	103	2600	251	43	2660	0	409	0	324			
Arrive On Green	0.06	0.55	0.55	0.03	0.52	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	1810	4715	454	1508	5253	0	1757	0	1392			
Grp Volume(v), veh/h	57	1560	831	36	856	0	356	0	82			
Grp Sat Flow(s),veh/h/ln	1810	1698	1773	1508	1695	0	1757	0	1392			
Q Serve(g_s), s	2.2	27.5	28.5	1.7	7.0	0.0	14.1	0.0	3.5			
Cycle Q Clear(g_c), s	2.2	27.5	28.5	1.7	7.0	0.0	14.1	0.0	3.5			
Prop In Lane	1.00		0.26	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	103	1873	977	43	2660	0	409	0	324			
V/C Ratio(X)	0.56	0.83	0.85	0.84	0.32	0.00	0.87	0.00	0.25			
Avail Cap(c_a), veh/h	151	1873	977	117	2752	0	524	0	415			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.1	13.4	13.7	34.8	9.9	0.0	26.6	0.0	22.5			
Incr Delay (d2), s/veh	4.6	3.9	8.2	32.3	0.2	0.0	12.1	0.0	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			
%ile BackOfQ(50%),veh/ln	1.2	13.8	16.1	1.1	3.3	0.0	8.2	0.0	1.4			
LnGrp Delay(d),s/veh	37.8	17.4	21.9	67.2	10.0	0.0	38.7	0.0	22.9			
LnGrp LOS	D	B	C	E	B		D		C			
Approach Vol, veh/h		2448			892			438				
Approach Delay, s/veh		19.4			12.3			35.8				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	6.1	44.7			8.1	42.7		21.3
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.6	39.4			6.0	39.0		21.5
Max Q Clear Time (g_c+I1), s	3.7	30.5			4.2	9.0		16.1
Green Ext Time (p_c), s	0.0	8.8			0.0	28.8		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	20	884	2161	5
Future Vol, veh/h	0	0	20	884	2161	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	21	931	2275	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1140	2280	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	0	170	92	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	170	92	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	92	-	-	-	-
HCM Lane V/C Ratio	0.229	-	-	-	-
HCM Control Delay (s)	55.4	-	0	-	-
HCM Lane LOS	F	-	A	-	-
HCM 95th %tile Q(veh)	0.8	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	215	35	205	355	160	70	93	40	105	393	90
Future Volume (veh/h)	120	215	35	205	355	160	70	93	40	105	393	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	130	234	38	223	386	174	76	101	43	114	427	98
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	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	162	430	70	263	403	182	98	667	270	144	852	194
Arrive On Green	0.09	0.27	0.27	0.15	0.33	0.33	0.05	0.27	0.27	0.08	0.30	0.30
Sat Flow, veh/h	1774	1564	254	1774	1217	549	1774	2461	996	1774	2865	652
Grp Volume(v), veh/h	130	0	272	223	0	560	76	71	73	114	262	263
Grp Sat Flow(s),veh/h/ln	1774	0	1818	1774	0	1766	1774	1770	1687	1774	1770	1748
Q Serve(g_s), s	5.7	0.0	10.2	9.8	0.0	24.8	3.4	2.4	2.6	5.0	9.8	9.9
Cycle Q Clear(g_c), s	5.7	0.0	10.2	9.8	0.0	24.8	3.4	2.4	2.6	5.0	9.8	9.9
Prop In Lane	1.00		0.14	1.00		0.31	1.00		0.59	1.00		0.37
Lane Grp Cap(c), veh/h	162	0	499	263	0	585	98	480	457	144	526	520
V/C Ratio(X)	0.80	0.00	0.54	0.85	0.00	0.96	0.78	0.15	0.16	0.79	0.50	0.51
Avail Cap(c_a), veh/h	166	0	499	306	0	585	140	480	457	166	526	520
HCM Platoon Ratio	1.00	1.00	1.00	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	0.43	0.00	0.43	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	0.0	24.7	33.2	0.0	26.2	37.3	22.1	22.2	36.1	23.2	23.2
Incr Delay (d2), s/veh	23.3	0.0	1.2	8.4	0.0	15.3	16.0	0.7	0.7	19.8	3.4	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	3.9	0.0	5.3	5.4	0.0	14.5	2.1	1.3	1.3	3.3	5.2	5.3
LnGrp Delay(d),s/veh	59.0	0.0	26.0	41.6	0.0	41.5	53.3	22.8	23.0	55.9	26.5	26.7
LnGrp LOS	E		C	D		D	D	C	C	E	C	C
Approach Vol, veh/h		402			783			220			639	
Approach Delay, s/veh		36.6			41.6			33.4			31.9	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	26.2	16.3	26.5	8.9	28.3	11.8	31.0
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	20.5	13.8	20.2	6.3	21.7	7.5	26.5
Max Q Clear Time (g_c+I1), s	7.0	4.6	11.8	12.2	5.4	11.9	7.7	26.8
Green Ext Time (p_c), s	0.0	3.7	0.1	3.4	0.0	2.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	715	1181	50	11	516	115	160	10	21	15	5	65
Future Volume (veh/h)	715	1181	50	11	516	115	160	10	21	15	5	65
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	777	1284	54	12	561	125	174	11	23	16	42	46
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	812	2552	107	246	839	183	215	65	137	24	64	76
Arrive On Green	0.46	0.51	0.51	0.14	0.20	0.20	0.12	0.12	0.12	0.05	0.05	0.05
Sat Flow, veh/h	1774	5005	210	1774	4179	913	1774	538	1126	507	1331	1583
Grp Volume(v), veh/h	777	870	468	12	453	233	174	0	34	58	0	46
Grp Sat Flow(s),veh/h/ln	1774	1695	1826	1774	1695	1702	1774	0	1664	1837	0	1583
Q Serve(g_s), s	41.9	16.8	16.8	0.6	12.2	12.6	9.5	0.0	1.8	3.1	0.0	2.8
Cycle Q Clear(g_c), s	41.9	16.8	16.8	0.6	12.2	12.6	9.5	0.0	1.8	3.1	0.0	2.8
Prop In Lane	1.00		0.12	1.00		0.54	1.00		0.68	0.28		1.00
Lane Grp Cap(c), veh/h	812	1729	931	246	681	342	215	0	202	89	0	76
V/C Ratio(X)	0.96	0.50	0.50	0.05	0.67	0.68	0.81	0.00	0.17	0.65	0.00	0.60
Avail Cap(c_a), veh/h	877	2326	1253	246	821	412	537	0	504	93	0	80
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	25.9	16.0	16.0	37.0	36.5	36.7	42.4	0.0	39.0	46.3	0.0	46.2
Incr Delay (d2), s/veh	19.8	0.8	1.5	0.1	4.1	8.7	7.0	0.0	0.4	14.5	0.0	11.2
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	24.8	8.0	8.9	0.3	6.1	6.7	5.1	0.0	0.9	1.9	0.0	1.5
LnGrp Delay(d),s/veh	45.8	16.8	17.5	37.1	40.7	45.3	49.4	0.0	39.4	60.8	0.0	57.4
LnGrp LOS	D	B	B	D	D	D	D		D	E		E
Approach Vol, veh/h		2115			698			208			104	
Approach Delay, s/veh		27.6			42.2			47.8			59.3	
Approach LOS		C			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.7	55.5		16.0	49.4	24.9		8.8
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 68		30.0	49.0	24.0		5.0
Max Q Clear Time (g_c+I1), s	2.6	18.8		11.5	43.9	14.6		5.1
Green Ext Time (p_c), s	1.6	31.8		0.6	1.5	5.3		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		33.3
HCM 2010 LOS		C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	33	153	0	54	93	825	155	54	2070	37
Future Volume (veh/h)	13	0	33	153	0	54	93	825	155	54	2070	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	14	0	36	166	0	59	101	897	168	59	2250	40
Adj No. of Lanes	1	1	0	2	1	0	1	3	1	1	3	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	30	0	95	246	0	181	129	2960	1035	84	2864	51
Arrive On Green	0.02	0.00	0.06	0.07	0.00	0.11	0.07	0.58	0.58	0.05	0.56	0.56
Sat Flow, veh/h	1774	0	1583	3442	0	1583	1774	5085	1583	1774	5146	91
Grp Volume(v), veh/h	14	0	36	166	0	59	101	897	168	59	1481	809
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1721	0	1583	1774	1695	1583	1774	1695	1847
Q Serve(g_s), s	0.6	0.0	1.6	3.5	0.0	2.6	4.2	6.7	3.1	2.5	25.8	26.0
Cycle Q Clear(g_c), s	0.6	0.0	1.6	3.5	0.0	2.6	4.2	6.7	3.1	2.5	25.8	26.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	30	0	95	246	0	181	129	2960	1035	84	1887	1028
V/C Ratio(X)	0.47	0.00	0.38	0.67	0.00	0.33	0.78	0.30	0.16	0.71	0.78	0.79
Avail Cap(c_a), veh/h	118	0	379	261	0	394	154	2960	1035	172	1887	1028
HCM Platoon Ratio	1.00	1.00	1.00	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	36.6	0.0	34.0	34.0	0.0	30.6	34.2	8.0	5.0	35.3	13.1	13.1
Incr Delay (d2), s/veh	10.9	0.0	2.5	6.2	0.0	1.0	19.5	0.3	0.3	10.3	3.4	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	0.4	0.0	0.8	1.9	0.0	1.2	2.7	3.1	1.4	1.5	12.8	14.8
LnGrp Delay(d),s/veh	47.5	0.0	36.5	40.3	0.0	31.6	53.8	8.2	5.4	45.6	16.5	19.2
LnGrp LOS	D		D	D		C	D	A	A	D	B	B
Approach Vol, veh/h		50			225			1166			2349	
Approach Delay, s/veh		39.6			38.0			11.8			18.2	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	48.2	9.9	9.0	10.0	46.3	5.8	13.1
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	7.3	41.0	5.7	18.0	6.5	41.8	5.0	18.7
Max Q Clear Time (g_c+I1), s	4.5	8.7	5.5	3.6	6.2	28.0	2.6	4.6
Green Ext Time (p_c), s	0.0	29.1	0.0	0.4	0.0	13.1	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

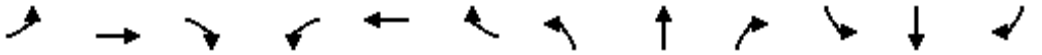
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	105	0	0	517	0	0
Future Vol, veh/h	105	0	0	517	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	-	-	-	-	-	-
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	114	0	0	562	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	114
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	939
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	939
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)	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	210	968	431	400	0	478	0	86	5	0	5
Future Volume (veh/h)	0	210	968	431	400	0	478	0	86	5	0	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1681	1810	1776	1681	1900	1743	1827	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	233	0	479	444	0	531	0	96	6	0	6
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	13	5	7	13	13	9	0	0	0	0	0
Cap, veh/h	2	318	291	502	884	0	564	0	527	25	0	22
Arrive On Green	0.00	0.19	0.00	0.30	0.53	0.00	0.34	0.00	0.34	0.01	0.00	0.01
Sat Flow, veh/h	1810	1681	1538	1691	1681	0	1660	0	1553	1810	0	1615
Grp Volume(v), veh/h	0	233	0	479	444	0	531	0	96	6	0	6
Grp Sat Flow(s),veh/h/ln	1810	1681	1538	1691	1681	0	1660	0	1553	1810	0	1615
Q Serve(g_s), s	0.0	14.6	0.0	31.1	19.0	0.0	34.7	0.0	4.9	0.4	0.0	0.4
Cycle Q Clear(g_c), s	0.0	14.6	0.0	31.1	19.0	0.0	34.7	0.0	4.9	0.4	0.0	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	2	318	291	502	884	0	564	0	527	25	0	22
V/C Ratio(X)	0.00	0.73	0.00	0.95	0.50	0.00	0.94	0.00	0.18	0.24	0.00	0.27
Avail Cap(c_a), veh/h	81	624	571	507	1052	0	623	0	583	81	0	72
HCM Platoon Ratio	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	42.7	0.0	38.6	17.1	0.0	35.9	0.0	26.0	54.6	0.0	54.6
Incr Delay (d2), s/veh	0.0	3.3	0.0	28.8	0.4	0.0	21.7	0.0	0.2	4.8	0.0	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	0.0	7.1	0.0	18.5	8.9	0.0	19.3	0.0	2.1	0.2	0.0	0.2
LnGrp Delay(d),s/veh	0.0	46.0	0.0	67.3	17.5	0.0	57.5	0.0	26.2	59.3	0.0	60.8
LnGrp LOS		D		E	B		E		C	E		E
Approach Vol, veh/h		233			923			627			12	
Approach Delay, s/veh		46.0			43.4			52.7			60.0	
Approach LOS		D			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		42.5	37.7	25.6		6.1	0.0	63.3
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		42.0	33.5	41.5		5.0	5.0	70.0
Max Q Clear Time (g_c+I1), s		36.7	33.1	16.6		2.4	0.0	21.0
Green Ext Time (p_c), s		1.2	0.1	4.5		0.0	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
27: Sierra College Boulevard/Sierra College Blvd & English Colony Way

01/21/2019

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	195	586	11	275	1871
Future Volume (veh/h)	6	195	586	11	275	1871
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1746	1900	1881	1845
Adj Flow Rate, veh/h	7	214	644	12	302	2056
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	9	9	1	3
Cap, veh/h	8	258	1468	27	352	2465
Arrive On Green	0.16	0.16	0.44	0.44	0.20	0.70
Sat Flow, veh/h	51	1563	3419	62	1792	3597
Grp Volume(v), veh/h	222	0	321	335	302	2056
Grp Sat Flow(s),veh/h/ln	1622	0	1658	1735	1792	1752
Q Serve(g_s), s	9.0	0.0	9.1	9.2	11.1	28.8
Cycle Q Clear(g_c), s	9.0	0.0	9.1	9.2	11.1	28.8
Prop In Lane	0.03	0.96		0.04	1.00	
Lane Grp Cap(c), veh/h	268	0	731	765	352	2465
V/C Ratio(X)	0.83	0.00	0.44	0.44	0.86	0.83
Avail Cap(c_a), veh/h	428	0	731	765	444	2465
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	27.6	0.0	13.2	13.2	26.5	7.3
Incr Delay (d2), s/veh	7.4	0.0	1.9	1.8	12.8	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	4.6	4.8	6.7	14.6
LnGrp Delay(d),s/veh	34.9	0.0	15.1	15.1	39.3	10.8
LnGrp LOS	C		B	B	D	B
Approach Vol, veh/h	222		656			2358
Approach Delay, s/veh	34.9		15.1			14.4
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.9	34.6				52.5		15.8
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	16.9	26.6				48.0		18.0
Max Q Clear Time (g_c+I1), s	13.1	11.2				30.8		11.0
Green Ext Time (p_c), s	0.3	14.0				15.5		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	82

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	0	136	5	225	0	651	11	30	1766	5
Future Vol, veh/h	5	0	0	136	5	225	0	651	11	30	1766	5
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	-	-	30	-	-	30	105	-	-	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	6	0	0	160	6	265	0	766	13	35	2078	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2537	2930	1042	1881	2926	389	2084	0	0	779	0	0
Stage 1	2151	2151	-	772	772	-	-	-	-	-	-	-
Stage 2	386	779	-	1109	2154	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	14	15	230	~ 45	15	615	270	-	-	847	-	-
Stage 1	50	89	-	363	412	-	-	-	-	-	-	-
Stage 2	614	409	-	227	88	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 5	14	230	~ 44	14	615	270	-	-	847	-	-
Mov Cap-2 Maneuver	~ 5	14	-	~ 44	14	-	-	-	-	-	-	-
Stage 1	50	85	-	363	412	-	-	-	-	-	-	-
Stage 2	345	409	-	218	84	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, $	1383.4	$ 614.8	0	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	270	-	-	5	-	41	615	847	-	-
HCM Lane V/C Ratio	-	-	-	1.176	-	4.046	0.43	0.042	-	-
HCM Control Delay (s)	0	-	-	$ 1383.4	-	$ 1571.6	15.2	9.4	-	-
HCM Lane LOS	A	-	-	F	A	F	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.5	-	18.9	2.2	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	15	116	105	40	15	126	206	30	10	626	270
Future Volume (veh/h)	80	15	116	105	40	15	126	206	30	10	626	270
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1813	1792	1900	1900	1900	1810	1768	1900	1900	1845	1759
Adj Flow Rate, veh/h	99	19	143	130	49	19	156	254	37	12	773	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	9	9	6	0	0	0	5	8	8	0	3	8
Cap, veh/h	172	33	180	156	59	23	184	836	122	26	852	691
Arrive On Green	0.12	0.12	0.12	0.13	0.13	0.13	0.11	0.55	0.55	0.01	0.46	0.00
Sat Flow, veh/h	1460	280	1524	1188	448	174	1723	1509	220	1810	1845	1495
Grp Volume(v), veh/h	118	0	143	198	0	0	156	0	291	12	773	0
Grp Sat Flow(s),veh/h/ln	1740	0	1524	1810	0	0	1723	0	1729	1810	1845	1495
Q Serve(g_s), s	6.3	0.0	9.0	10.5	0.0	0.0	8.8	0.0	8.9	0.6	38.3	0.0
Cycle Q Clear(g_c), s	6.3	0.0	9.0	10.5	0.0	0.0	8.8	0.0	8.9	0.6	38.3	0.0
Prop In Lane	0.84		1.00	0.66		0.10	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	205	0	180	237	0	0	184	0	958	26	852	691
V/C Ratio(X)	0.58	0.00	0.80	0.83	0.00	0.00	0.85	0.00	0.30	0.47	0.91	0.00
Avail Cap(c_a), veh/h	318	0	278	331	0	0	184	0	958	92	852	691
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.1	0.0	42.3	41.8	0.0	0.0	43.2	0.0	11.8	48.2	24.6	0.0
Incr Delay (d2), s/veh	2.5	0.0	8.5	12.2	0.0	0.0	29.4	0.0	0.8	12.6	15.2	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	3.2	0.0	4.2	6.1	0.0	0.0	5.7	0.0	4.4	0.4	22.9	0.0
LnGrp Delay(d),s/veh	43.7	0.0	50.8	53.9	0.0	0.0	72.7	0.0	12.6	60.8	39.8	0.0
LnGrp LOS	D		D	D			E		B	E	D	
Approach Vol, veh/h		261			198			447			785	
Approach Delay, s/veh		47.6			53.9			33.6			40.1	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	59.1		16.1	15.0	50.0		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	51.0		18.0	10.5	45.5		18.0
Max Q Clear Time (g_c+I1), s	2.6	10.9		11.0	10.8	40.3		12.5
Green Ext Time (p_c), s	0.0	9.5		0.6	0.0	3.1		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	41.1
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	17	340	938	0
Future Vol, veh/h	0	9	17	340	938	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	0	12	23	459	1268	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1773	1268	1268	0	-	0
Stage 1	1268	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	92	208	555	-	-	-
Stage 1	267	-	-	-	-	-
Stage 2	610	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	88	208	555	-	-	-
Mov Cap-2 Maneuver	88	-	-	-	-	-
Stage 1	267	-	-	-	-	-
Stage 2	585	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.4	0.6	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	555	-	208	-	-
HCM Lane V/C Ratio	0.041	-	0.058	-	-
HCM Control Delay (s)	11.8	-	23.4	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	51	95	262	46	185	762
Future Volume (veh/h)	51	95	262	46	185	762
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1832	1900	1810	1827
Adj Flow Rate, veh/h	72	134	369	65	261	1073
Adj No. of Lanes	0	0	1	0	1	1
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Percent Heavy Veh, %	0	0	4	4	5	4
Cap, veh/h	87	163	741	130	305	1328
Arrive On Green	0.15	0.15	0.49	0.49	0.18	0.73
Sat Flow, veh/h	584	1087	1518	267	1723	1827
Grp Volume(v), veh/h	207	0	0	434	261	1073
Grp Sat Flow(s),veh/h/ln	1679	0	0	1785	1723	1827
Q Serve(g_s), s	8.7	0.0	0.0	12.0	10.7	28.3
Cycle Q Clear(g_c), s	8.7	0.0	0.0	12.0	10.7	28.3
Prop In Lane	0.35	0.65		0.15	1.00	
Lane Grp Cap(c), veh/h	251	0	0	871	305	1328
V/C Ratio(X)	0.82	0.00	0.00	0.50	0.85	0.81
Avail Cap(c_a), veh/h	415	0	0	871	390	1328
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	0.0	0.0	12.6	29.1	6.6
Incr Delay (d2), s/veh	6.7	0.0	0.0	2.0	13.8	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	0.0	6.4	6.2	16.0
LnGrp Delay(d),s/veh	36.8	0.0	0.0	14.7	42.9	11.9
LnGrp LOS	D			B	D	B
Approach Vol, veh/h	207		434			1334
Approach Delay, s/veh	36.8		14.7			18.0
Approach LOS	D		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.4	40.1				57.5		15.4
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	16.5	32.0				53.0		18.0
Max Q Clear Time (g_c+I1), s	12.7	14.0				30.3		10.7
Green Ext Time (p_c), s	0.3	11.3				13.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.2
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	55

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	55	45	278	160	170	717
Future Vol, veh/h	55	45	278	160	170	717
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	0	0	3	1	0	2
Mvmt Flow	92	75	463	267	283	1195

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2359	597	0	0	730	0
Stage 1	597	-	-	-	-	-
Stage 2	1762	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	~ 40	507	-	-	883	-
Stage 1	554	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 27	507	-	-	883	-
Mov Cap-2 Maneuver	~ 27	-	-	-	-	-
Stage 1	554	-	-	-	-	-
Stage 2	104	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 765	0	2.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	27	507	883	-
HCM Lane V/C Ratio	-	-	3.395	0.148	0.321	-
HCM Control Delay (s)	-	-	$ 1380.1	13.3	11	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	11.2	0.5	1.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	252.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	3	127	0	103	3	335	129	109	659	4
Future Vol, veh/h	0	0	3	127	0	103	3	335	129	109	659	4
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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	2	0
Mvmt Flow	0	0	4	187	0	151	4	493	190	160	969	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1965	1984	972	1891	1892	588	975	0	0	682	0	0
Stage 1	1293	1293	-	596	596	-	-	-	-	-	-	-
Stage 2	672	691	-	1295	1296	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	48	62	309	~ 54	71	513	716	-	-	920	-	-
Stage 1	202	235	-	494	495	-	-	-	-	-	-	-
Stage 2	449	449	-	202	234	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	29	51	309	~ 46	58	513	716	-	-	920	-	-
Mov Cap-2 Maneuver	29	51	-	~ 46	58	-	-	-	-	-	-	-
Stage 1	201	194	-	491	492	-	-	-	-	-	-	-
Stage 2	315	446	-	~ 164	193	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.8	$ 1610.3	0.1	1.4
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	716	-	-	309	78	920	-	-
HCM Lane V/C Ratio	0.006	-	-	0.014	4.336	0.174	-	-
HCM Control Delay (s)	10.1	-	-	16.8	$ 1610.3	9.7	-	-
HCM Lane LOS	B	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	36	0.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	24.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	161	60	407	304	111	678
Future Vol, veh/h	161	60	407	304	111	678
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	3	1	1	2
Mvmt Flow	218	81	550	411	150	916

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1971	755	0	0	961	0
Stage 1	755	-	-	-	-	-
Stage 2	1216	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	~ 70	412	-	-	720	-
Stage 1	468	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 55	412	-	-	720	-
Mov Cap-2 Maneuver	~ 160	-	-	-	-	-
Stage 1	468	-	-	-	-	-
Stage 2	224	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	187.2	0	1.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	160	412	720	-
HCM Lane V/C Ratio	-	-	1.36	0.197	0.208	-
HCM Control Delay (s)	-	-	251	15.9	11.3	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	13.3	0.7	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	38	56	709	845	0
Future Vol, veh/h	1	38	56	709	845	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	19	9	3	3	0
Mvmt Flow	1	51	76	958	1142	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2251	1142	1142	0	-	0
Stage 1	1142	-	-	-	-	-
Stage 2	1109	-	-	-	-	-
Critical Hdwy	6.4	6.39	4.19	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.471	2.281	-	-	-
Pot Cap-1 Maneuver	46	225	587	-	-	-
Stage 1	307	-	-	-	-	-
Stage 2	318	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	40	225	587	-	-	-
Mov Cap-2 Maneuver	151	-	-	-	-	-
Stage 1	307	-	-	-	-	-
Stage 2	277	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.2	0.9	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	587	-	222	-	-
HCM Lane V/C Ratio	0.129	-	0.237	-	-
HCM Control Delay (s)	12	-	26.2	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	-	-

Intersection	
Int Delay, s/veh	35.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	221	5	0	10	86	876	5	25	1091	15
Future Vol, veh/h	0	0	221	5	0	10	86	876	5	25	1091	15
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	2	0	0	7	3	4	0	0	6	20
Mvmt Flow	0	0	233	5	0	11	91	922	5	26	1148	16

Major/Minor	Minor2		Minor1			Major1				Major2		
Conflicting Flow All	-	-	1148	2307	2307	925	1148	0	0	927	0	0
Stage 1	-	-	-	1106	1106	-	-	-	-	-	-	-
Stage 2	-	-	-	1201	1201	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	7.1	6.5	6.27	4.13	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	3.5	4	3.363	2.227	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	242	27	39	319	605	-	-	746	-	-
Stage 1	0	0	-	258	289	-	-	-	-	-	-	-
Stage 2	0	0	-	228	260	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	242	~ 1	32	319	605	-	-	746	-	-
Mov Cap-2 Maneuver	-	-	-	~ 1	32	-	-	-	-	-	-	-
Stage 1	-	-	-	219	246	-	-	-	-	-	-	-
Stage 2	-	-	-	9	251	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	91.9	$ 4103.8	1.1	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	605	-	-	242	3	746	-	-
HCM Lane V/C Ratio	0.15	-	-	0.961	5.263	0.035	-	-
HCM Control Delay (s)	12	-	-	91.9	$ 4103.8	10	-	-
HCM Lane LOS	B	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0.5	-	-	8.8	3.4	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	105	1	3	515	5	4
Future Vol, veh/h	105	1	3	515	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	114	1	3	560	5	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	115	0	681	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	566	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1474	-	416	937
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	568	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1474	-	415	937
Mov Cap-2 Maneuver	-	-	-	-	485	-
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	567	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	617	-	-	1474	-
HCM Lane V/C Ratio	0.016	-	-	0.002	-
HCM Control Delay (s)	10.9	-	-	7.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	240	496	84	70	40	416	395	324	65	275	65
Future Volume (veh/h)	90	240	496	84	70	40	416	395	324	65	275	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1827	1845	1827	1817	1900	1759	1845	1845	1863	1823	1900
Adj Flow Rate, veh/h	101	270	557	94	79	45	467	444	364	73	309	73
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	4	3	4	6	6	8	3	3	2	5	5
Cap, veh/h	454	481	404	196	122	69	498	750	629	94	435	101
Arrive On Green	0.26	0.26	0.26	0.11	0.11	0.11	0.30	0.41	0.41	0.05	0.16	0.16
Sat Flow, veh/h	1723	1827	1534	1740	1079	614	1675	1845	1547	1774	2758	639
Grp Volume(v), veh/h	101	270	557	94	0	124	467	444	364	73	192	190
Grp Sat Flow(s),veh/h/ln	1723	1827	1534	1740	0	1693	1675	1845	1547	1774	1732	1665
Q Serve(g_s), s	4.9	13.6	28.0	5.4	0.0	7.5	28.9	20.0	19.4	4.3	11.2	11.6
Cycle Q Clear(g_c), s	4.9	13.6	28.0	5.4	0.0	7.5	28.9	20.0	19.4	4.3	11.2	11.6
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		0.38
Lane Grp Cap(c), veh/h	454	481	404	196	0	191	498	750	629	94	273	262
V/C Ratio(X)	0.22	0.56	1.38	0.48	0.00	0.65	0.94	0.59	0.58	0.78	0.70	0.73
Avail Cap(c_a), veh/h	454	481	404	458	0	446	559	789	661	183	334	321
HCM Platoon Ratio	1.00	1.00	1.00	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	30.7	33.9	39.2	44.3	0.0	45.2	36.4	24.7	24.5	49.8	42.5	42.6
Incr Delay (d2), s/veh	0.1	0.9	185.8	0.7	0.0	1.4	22.4	0.7	0.7	5.2	3.3	4.4
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	6.9	32.7	2.6	0.0	3.6	16.5	10.3	8.4	2.3	5.6	5.7
LnGrp Delay(d),s/veh	30.8	34.8	225.0	44.9	0.0	46.6	58.9	25.3	25.2	55.0	45.8	47.0
LnGrp LOS	C	C	F	D		D	E	C	C	D	D	D
Approach Vol, veh/h		928			218			1275			455	
Approach Delay, s/veh		148.5			45.9			37.6			47.8	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.6	48.8		32.0	36.1	22.3		16.0
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	11.0	45.5		28.0	35.5	20.5		28.0
Max Q Clear Time (g_c+I1), s	6.3	22.0		30.0	30.9	13.6		9.5
Green Ext Time (p_c), s	0.0	4.3		0.0	0.7	2.6		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	75.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	30	20	65	10	460	20	779	105	555	699	15
Future Volume (veh/h)	15	30	20	65	10	460	20	779	105	555	699	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1837	1845	1900	1845	1827	1863	1864	1900
Adj Flow Rate, veh/h	16	32	21	69	11	489	21	829	112	590	744	16
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	3	0	3	4	2	2	2
Cap, veh/h	41	74	36	144	20	732	26	824	687	596	1394	30
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.01	0.45	0.45	0.34	0.77	0.77
Sat Flow, veh/h	74	557	276	728	148	1556	1810	1845	1539	1774	1816	39
Grp Volume(v), veh/h	69	0	0	80	0	489	21	829	112	590	0	760
Grp Sat Flow(s),veh/h/ln	907	0	0	876	0	1556	1810	1845	1539	1774	0	1855
Q Serve(g_s), s	0.4	0.0	0.0	0.0	0.0	18.5	1.6	62.5	6.1	46.3	0.0	22.6
Cycle Q Clear(g_c), s	14.9	0.0	0.0	14.6	0.0	18.5	1.6	62.5	6.1	46.3	0.0	22.6
Prop In Lane	0.23		0.30	0.86		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	152	0	0	164	0	732	26	824	687	596	0	1424
V/C Ratio(X)	0.46	0.00	0.00	0.49	0.00	0.67	0.80	1.01	0.16	0.99	0.00	0.53
Avail Cap(c_a), veh/h	152	0	0	164	0	732	75	824	687	596	0	1424
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	0.0	58.9	0.0	28.9	68.8	38.8	23.1	46.3	0.0	6.4
Incr Delay (d2), s/veh	2.1	0.0	0.0	2.3	0.0	2.3	18.7	33.0	0.1	34.4	0.0	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	2.5	0.0	0.0	3.1	0.0	15.1	0.9	39.3	2.6	28.3	0.0	11.6
LnGrp Delay(d),s/veh	57.2	0.0	0.0	61.1	0.0	31.2	87.5	71.8	23.2	80.7	0.0	6.8
LnGrp LOS	E			E		C	F	F	C	F		A
Approach Vol, veh/h		69			569			962			1350	
Approach Delay, s/veh		57.2			35.4			66.5			39.1	
Approach LOS		E			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	51.0	66.5		22.5	6.0	111.5		22.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	47.0	62.5		18.5	5.8	103.7		18.5
Max Q Clear Time (g_c+I1), s	48.3	64.5		16.9	3.6	24.6		20.5
Green Ext Time (p_c), s	0.0	0.0		0.5	0.0	21.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	35	60	85	50	75	215	805	155	50	205	575
Future Volume (veh/h)	70	35	60	85	50	75	215	805	155	50	205	575
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1881	1877	1900	1827	1850	1900	1900	1845	1863
Adj Flow Rate, veh/h	74	37	64	90	53	80	229	856	165	53	218	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	0	0	4	3	3	0	3	2
Cap, veh/h	136	68	183	214	81	122	287	1217	235	96	557	478
Arrive On Green	0.11	0.11	0.11	0.12	0.12	0.12	0.16	0.41	0.41	0.05	0.30	0.00
Sat Flow, veh/h	1202	601	1615	1792	676	1021	1740	2941	567	1810	1845	1583
Grp Volume(v), veh/h	111	0	64	90	0	133	229	512	509	53	218	0
Grp Sat Flow(s),veh/h/ln	1803	0	1615	1792	0	1697	1740	1758	1750	1810	1845	1583
Q Serve(g_s), s	2.8	0.0	1.7	2.2	0.0	3.6	6.0	11.5	11.5	1.4	4.5	0.0
Cycle Q Clear(g_c), s	2.8	0.0	1.7	2.2	0.0	3.6	6.0	11.5	11.5	1.4	4.5	0.0
Prop In Lane	0.67		1.00	1.00		0.60	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	205	0	183	214	0	203	287	727	724	96	557	478
V/C Ratio(X)	0.54	0.00	0.35	0.42	0.00	0.66	0.80	0.70	0.70	0.55	0.39	0.00
Avail Cap(c_a), veh/h	965	0	865	692	0	656	713	1300	1294	251	864	742
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	19.9	0.0	19.5	19.4	0.0	20.0	19.1	11.5	11.5	22.0	13.2	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.4	0.5	0.0	1.3	2.0	0.7	0.7	1.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.8	1.1	0.0	1.7	3.0	5.7	5.7	0.7	2.3	0.0
LnGrp Delay(d),s/veh	20.8	0.0	19.9	19.9	0.0	21.4	21.1	12.2	12.2	23.8	13.4	0.0
LnGrp LOS	C		B	B		C	C	B	B	C	B	
Approach Vol, veh/h		175			223			1250			271	
Approach Delay, s/veh		20.4			20.8			13.8			15.4	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.5	23.4		8.9	10.8	18.1		9.8
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	6.6	35.2		25.5	19.5	22.3		18.4
Max Q Clear Time (g_c+I1), s	3.4	13.5		4.8	8.0	6.5		5.6
Green Ext Time (p_c), s	0.0	6.2		0.4	0.2	5.5		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	379.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	305	530	645	325	100	250
Future Vol, veh/h	305	530	645	325	100	250
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	93	93	93	93	93	93
Heavy Vehicles, %	1	3	3	2	4	1
Mvmt Flow	328	570	694	349	108	269

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1178	694	0	0	694	0
Stage 1	694	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Critical Hdwy	6.41	6.23	-	-	4.14	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.327	-	-	2.236	-
Pot Cap-1 Maneuver	~ 212	~ 441	-	-	892	-
Stage 1	498	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 182	~ 441	-	-	892	-
Mov Cap-2 Maneuver	~ 182	-	-	-	-	-
Stage 1	498	-	-	-	-	-
Stage 2	534	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 978.6	0	2.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	290	892	-
HCM Lane V/C Ratio	-	-	3.096	0.121	-
HCM Control Delay (s)	-	-	$ 978.6	9.6	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	80.2	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

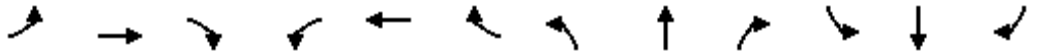
Intersection	
Int Delay, s/veh	4.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	589	62	55	184	37	155
Future Vol, veh/h	589	62	55	184	37	155
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, %	1	3	2	6	5	4
Mvmt Flow	640	67	60	200	40	168

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	708	0	994	674
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	320	-
Critical Hdwy	-	-	4.12	-	6.45	6.24
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.336
Pot Cap-1 Maneuver	-	-	891	-	268	451
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	729	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	891	-	248	451
Mov Cap-2 Maneuver	-	-	-	-	248	-
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	674	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	24.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	390	-	-	891	-
HCM Lane V/C Ratio	0.535	-	-	0.067	-
HCM Control Delay (s)	24.4	-	-	9.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	3	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	320	260	519	190	70	151	1490	574	35	959	70
Future Volume (veh/h)	135	320	260	519	190	70	151	1490	574	35	959	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1827	1845	1845	1863	1810	1810	1881	1845	1743	1863	1810
Adj Flow Rate, veh/h	147	348	283	564	207	76	164	1620	624	38	1042	76
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	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
Percent Heavy Veh, %	1	4	3	3	2	5	5	1	3	9	2	5
Cap, veh/h	174	347	298	547	472	385	188	1665	982	47	1363	742
Arrive On Green	0.10	0.19	0.19	0.16	0.25	0.25	0.11	0.47	0.47	0.03	0.39	0.39
Sat Flow, veh/h	1792	1827	1568	3408	1863	1518	1723	3574	1568	1660	3539	1538
Grp Volume(v), veh/h	147	348	283	564	207	76	164	1620	624	38	1042	76
Grp Sat Flow(s),veh/h/ln	1792	1827	1568	1704	1863	1518	1723	1787	1568	1660	1770	1538
Q Serve(g_s), s	10.4	24.5	23.0	20.7	12.0	5.1	12.1	57.1	31.8	2.9	33.1	3.5
Cycle Q Clear(g_c), s	10.4	24.5	23.0	20.7	12.0	5.1	12.1	57.1	31.8	2.9	33.1	3.5
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	174	347	298	547	472	385	188	1665	982	47	1363	742
V/C Ratio(X)	0.84	1.00	0.95	1.03	0.44	0.20	0.87	0.97	0.64	0.80	0.76	0.10
Avail Cap(c_a), veh/h	261	347	298	547	472	385	194	1665	982	64	1381	750
HCM Platoon Ratio	1.00	1.00	1.00	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	57.2	52.2	51.6	54.1	40.4	37.8	56.5	33.6	14.9	62.3	34.5	18.2
Incr Delay (d2), s/veh	14.6	48.9	39.4	46.5	1.4	0.5	32.0	16.2	1.9	38.8	3.1	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	5.9	17.1	13.2	13.3	6.4	2.2	7.4	31.9	14.2	1.9	16.6	1.5
LnGrp Delay(d),s/veh	71.9	101.1	91.0	100.6	41.8	38.3	88.5	49.9	16.9	101.1	37.6	18.3
LnGrp LOS	E	F	F	F	D	D	F	D	B	F	D	B
Approach Vol, veh/h		778			847			2408			1156	
Approach Delay, s/veh		91.9			80.7			43.9			38.4	
Approach LOS		F			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	65.5	25.2	30.0	18.6	55.2	17.0	38.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	59.8	20.7	24.5	14.5	50.3	18.8	26.4
Max Q Clear Time (g_c+I1), s	4.9	59.1	22.7	26.5	14.1	35.1	12.4	14.0
Green Ext Time (p_c), s	0.0	0.7	0.0	0.0	0.0	14.6	0.2	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	55.9
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	545	105	0	133	0	2107	375	322	1301	115
Future Volume (vph)	0	0	545	105	0	133	0	2107	375	322	1301	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes			0.99	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	0.99	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1604	1770		1553		5085	1615	1787	5031	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1604	1770		1553		5085	1615	1787	5031	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	568	109	0	139	0	2195	391	335	1355	120
RTOR Reduction (vph)	0	0	70	0	0	93	0	0	131	0	8	0
Lane Group Flow (vph)	0	0	498	109	0	46	0	2195	260	335	1467	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			31.0	7.5		43.0		52.5	60.0	21.0	77.5	
Effective Green, g (s)			31.0	7.5		43.0		52.5	60.0	21.0	77.5	
Actuated g/C Ratio			0.24	0.06		0.33		0.40	0.46	0.16	0.60	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			382	102		513		2053	745	288	2999	
v/s Ratio Prot				c0.06				c0.43	0.02	c0.19	0.29	
v/s Ratio Perm			c0.31			0.03			0.14			
v/c Ratio			1.30	1.07		0.09		1.07	0.35	1.16	0.49	
Uniform Delay, d1			49.5	61.2		30.0		38.8	22.5	54.5	15.0	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			154.5	108.8		0.1		41.3	0.3	104.7	0.2	
Delay (s)			204.0	170.1		30.1		80.1	22.7	159.2	15.1	
Level of Service			F	F		C		F	C	F	B	
Approach Delay (s)		204.0			91.6			71.4			41.8	
Approach LOS		F			F			E			D	

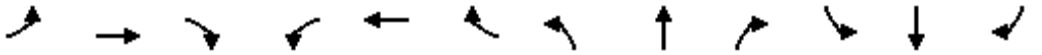
Intersection Summary			
HCM 2000 Control Delay	76.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	25	285	120	30	90	220	2150	55	100	1861	194
Future Volume (veh/h)	424	25	285	120	30	90	220	2150	55	100	1861	194
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1863	1863	1863	1881
Adj Flow Rate, veh/h	451	27	303	128	32	96	234	2287	59	106	1980	206
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	1
Cap, veh/h	424	429	641	156	163	136	265	1664	744	131	1985	615
Arrive On Green	0.23	0.23	0.23	0.09	0.09	0.09	0.15	0.47	0.47	0.07	0.39	0.39
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	3539	1582	1774	5085	1577
Grp Volume(v), veh/h	451	27	303	128	32	96	234	2287	59	106	1980	206
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1770	1582	1774	1695	1577
Q Serve(g_s), s	30.0	1.5	12.2	9.2	2.1	7.8	17.0	60.2	2.6	7.5	49.8	11.7
Cycle Q Clear(g_c), s	30.0	1.5	12.2	9.2	2.1	7.8	17.0	60.2	2.6	7.5	49.8	11.7
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	424	429	641	156	163	136	265	1664	744	131	1985	615
V/C Ratio(X)	1.06	0.06	0.47	0.82	0.20	0.71	0.88	1.37	0.08	0.81	1.00	0.33
Avail Cap(c_a), veh/h	424	429	641	411	428	357	605	1664	744	277	1985	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	49.0	38.1	42.2	57.4	54.1	56.7	53.1	33.9	18.7	58.4	39.0	27.4
Incr Delay (d2), s/veh	61.8	0.1	0.5	10.3	0.6	6.6	9.4	172.4	0.1	11.0	19.6	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	22.2	0.7	4.7	4.9	1.1	3.5	8.8	69.2	1.2	4.1	26.9	5.2
LnGrp Delay(d),s/veh	110.9	38.1	42.7	67.6	54.7	63.4	62.5	206.3	18.8	69.4	58.6	28.1
LnGrp LOS	F	D	D	E	D	E	E	F	B	E	E	C
Approach Vol, veh/h		781			256			2580			2292	
Approach Delay, s/veh		81.9			64.4			189.0			56.3	
Approach LOS		F			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	65.2	15.3	34.1	23.7	55.0	34.0	15.4
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	9.5	62.2	11.2	14.2	19.0	51.8	32.0	9.8
Green Ext Time (p_c), s	0.2	0.0	0.3	1.7	0.7	0.0	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	118.0
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	0	120	1035	70	392	305	1968	255	0	2231	35
Future Volume (veh/h)	35	0	120	1035	70	392	305	1968	255	0	2231	35
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1863	1845	1825	1810	1881	1845	1863	0	1792	1881
Adj Flow Rate, veh/h	37	0	128	1101	0	466	324	2094	271	0	2373	37
Adj No. of Lanes	1	0	1	2	0	2	1	3	1	0	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	3	2	5	1	3	2	0	6	1
Cap, veh/h	49	0	0	1146	0	809	285	2995	942	0	1966	642
Arrive On Green	0.03	0.00	0.00	0.33	0.00	0.26	0.32	1.00	1.00	0.00	0.40	0.40
Sat Flow, veh/h	1810	37		3514	0	3076	1792	5036	1583	0	5055	1599
Grp Volume(v), veh/h	37	87.5		1101	0	466	324	2094	271	0	2373	37
Grp Sat Flow(s),veh/h/ln	1810	F		1757	0	1538	1792	1679	1583	0	1631	1599
Q Serve(g_s), s	2.8			43.1	0.0	18.4	22.3	0.0	0.0	0.0	56.3	2.0
Cycle Q Clear(g_c), s	2.8			43.1	0.0	18.4	22.3	0.0	0.0	0.0	56.3	2.0
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	49			1146	0	809	285	2995	942	0	1966	642
V/C Ratio(X)	0.75			0.96	0.00	0.58	1.14	0.70	0.29	0.00	1.21	0.06
Avail Cap(c_a), veh/h	65			1230	0	857	285	2995	942	0	1966	642
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00			1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.42	0.42
Uniform Delay (d), s/veh	67.6			46.3	0.0	44.8	47.7	0.0	0.0	0.0	41.9	25.6
Incr Delay (d2), s/veh	19.9			16.2	0.0	0.5	94.9	1.4	0.8	0.0	95.3	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
%ile BackOfQ(50%),veh/ln	1.7			23.5	0.0	7.9	18.5	0.4	0.2	0.0	42.7	0.9
LnGrp Delay(d),s/veh	87.5			62.5	0.0	45.3	142.6	1.4	0.8	0.0	137.2	25.7
LnGrp LOS	F			E		D	F	A	A		F	C
Approach Vol, veh/h					1567			2689			2410	
Approach Delay, s/veh					57.4			18.3			135.5	
Approach LOS					E			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		89.5	50.5		27.0	62.5	8.4	42.1
Change Period (Y+Rc), s		6.2	4.9		* 4.7	6.2	4.6	5.3
Max Green Setting (Gmax), s		79.9	49.0		* 22	52.9	5.0	39.0
Max Q Clear Time (g_c+I1), s		2.0	45.1		24.3	58.3	4.8	20.4
Green Ext Time (p_c), s		45.2	0.6		0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	70.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	624	180	100	125	0	310	0	2459	160	270	1555	521
Future Volume (veh/h)	624	180	100	125	0	310	0	2459	160	270	1555	521
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1881	0	1881	0	1827	1900	1881	1845	1881
Adj Flow Rate, veh/h	657	189	105	132	0	326	0	2588	168	284	1637	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	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	0	2	1	0	1	0	4	0	1	3	1
Cap, veh/h	710	347	152	138	0	0	0	2478	637	966	2512	1146
Arrive On Green	0.21	0.10	0.10	0.08	0.00	0.00	0.00	0.39	0.39	0.28	0.72	0.00
Sat Flow, veh/h	3442	3610	1583	1792	132		0	6540	1615	3476	3505	1599
Grp Volume(v), veh/h	657	189	105	132	126.6		0	2588	168	284	1637	0
Grp Sat Flow(s),veh/h/ln	1721	1805	1583	1792	F		0	1571	1615	1738	1752	1599
Q Serve(g_s), s	26.2	7.0	9.0	10.3			0.0	55.2	7.3	9.0	34.8	0.0
Cycle Q Clear(g_c), s	26.2	7.0	9.0	10.3			0.0	55.2	7.3	9.0	34.8	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	710	347	152	138			0	2478	637	966	2512	1146
V/C Ratio(X)	0.93	0.54	0.69	0.96			0.00	1.04	0.26	0.29	0.65	0.00
Avail Cap(c_a), veh/h	762	1083	475	138			0	2478	637	966	2512	1146
HCM Platoon Ratio	1.00	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	0.76	0.76	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.5	60.3	61.2	64.4			0.0	42.4	15.9	39.7	10.5	0.0
Incr Delay (d2), s/veh	16.3	0.5	2.1	62.3			0.0	29.0	0.8	0.1	1.3	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
%ile BackOfQ(50%),veh/ln	14.1	3.5	4.0	7.5			0.0	28.9	3.4	4.3	17.1	0.0
LnGrp Delay(d),s/veh	70.8	60.8	63.3	126.6			0.0	71.4	16.7	39.8	11.9	0.0
LnGrp LOS	E	E	E	F				F	B	D	B	
Approach Vol, veh/h		951						2756			1921	
Approach Delay, s/veh		68.0						68.1			16.0	
Approach LOS		E						E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	45.1	61.4	15.4	18.1		106.5	33.5	
Change Period (Y+Rc), s	6.2	* 6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	12.0	* 55	10.8	42.0		71.8	31.0	
Max Q Clear Time (g_c+I1), s	11.0	57.2	12.3	11.0		36.8	28.2	
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5		6.5	0.7	

Intersection Summary	
HCM 2010 Ctrl Delay	52.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	10	65	25	5	75	55	2389	65	0	1590	190
Future Volume (veh/h)	155	10	65	25	5	75	55	2389	65	0	1590	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1894	1881	1863	1863	1900	0	1863	1863
Adj Flow Rate, veh/h	168	11	71	27	5	82	60	2597	71	0	1728	207
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	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
Percent Heavy Veh, %	2	2	2	2	2	1	2	2	2	0	2	2
Cap, veh/h	204	25	161	105	19	110	77	4483	122	0	2157	965
Arrive On Green	0.11	0.11	0.11	0.07	0.07	0.07	0.04	0.69	0.69	0.00	0.61	0.61
Sat Flow, veh/h	1774	217	1399	1533	284	1599	1774	6461	176	0	3632	1583
Grp Volume(v), veh/h	168	0	82	32	0	82	60	1931	737	0	1728	207
Grp Sat Flow(s),veh/h/ln	1774	0	1616	1817	0	1599	1774	1602	1831	0	1770	1583
Q Serve(g_s), s	10.2	0.0	5.2	1.8	0.0	5.5	3.7	22.6	22.7	0.0	41.0	6.5
Cycle Q Clear(g_c), s	10.2	0.0	5.2	1.8	0.0	5.5	3.7	22.6	22.7	0.0	41.0	6.5
Prop In Lane	1.00		0.87	0.84		1.00	1.00		0.10	0.00		1.00
Lane Grp Cap(c), veh/h	204	0	186	125	0	110	77	3335	1271	0	2157	965
V/C Ratio(X)	0.82	0.00	0.44	0.26	0.00	0.75	0.78	0.58	0.58	0.00	0.80	0.21
Avail Cap(c_a), veh/h	290	0	264	297	0	262	81	3335	1271	0	2157	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	0.09	0.09	0.09	0.00	0.70	0.70
Uniform Delay (d), s/veh	47.6	0.0	45.4	48.6	0.0	50.3	52.1	8.6	8.6	0.0	16.4	9.6
Incr Delay (d2), s/veh	12.2	0.0	1.6	1.1	0.0	9.7	4.3	0.1	0.2	0.0	2.3	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	5.7	0.0	2.4	1.0	0.0	2.7	1.9	9.9	11.3	0.0	20.6	2.9
LnGrp Delay(d),s/veh	59.8	0.0	47.0	49.7	0.0	60.0	56.4	8.7	8.8	0.0	18.7	10.0
LnGrp LOS	E		D	D		E	E	A	A		B	B
Approach Vol, veh/h		250			114			2728			1935	
Approach Delay, s/veh		55.6			57.1			9.8			17.7	
Approach LOS		E			E			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		80.8		17.1	9.3	71.6		12.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		60.5		18.0	5.0	51.0		18.0
Max Q Clear Time (g_c+I1), s		24.7		12.2	5.7	43.0		7.5
Green Ext Time (p_c), s		35.1		0.5	0.0	8.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	55	485	155	100	15	295	2289	185	100	1475	105
Future Volume (veh/h)	205	55	485	155	100	15	295	2289	185	100	1475	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1776	1900	1900	1900	1863	1863	1696	1881	1900
Adj Flow Rate, veh/h	223	60	527	168	109	16	321	2488	201	109	1603	114
Adj No. of Lanes	1	1	1	2	1	1	1	3	1	1	2	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
Percent Heavy Veh, %	0	0	0	7	0	0	0	2	2	12	1	0
Cap, veh/h	187	522	444	203	443	377	271	2360	734	109	1363	615
Arrive On Green	0.10	0.27	0.27	0.06	0.23	0.23	0.15	0.46	0.46	0.07	0.38	0.38
Sat Flow, veh/h	1810	1900	1615	3281	1900	1615	1810	5085	1582	1616	3574	1614
Grp Volume(v), veh/h	223	60	527	168	109	16	321	2488	201	109	1603	114
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1640	1900	1615	1810	1695	1582	1616	1787	1614
Q Serve(g_s), s	15.5	3.5	41.2	7.6	7.0	1.2	22.5	69.6	11.7	10.1	57.2	7.1
Cycle Q Clear(g_c), s	15.5	3.5	41.2	7.6	7.0	1.2	22.5	69.6	11.7	10.1	57.2	7.1
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	187	522	444	203	443	377	271	2360	734	109	1363	615
V/C Ratio(X)	1.19	0.11	1.19	0.83	0.25	0.04	1.18	1.05	0.27	1.00	1.18	0.19
Avail Cap(c_a), veh/h	187	522	444	203	443	377	271	2360	734	109	1363	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	67.3	40.7	54.4	69.5	46.8	44.5	63.7	40.2	24.7	69.9	46.4	30.9
Incr Delay (d2), s/veh	127.3	0.1	105.2	23.5	0.3	0.1	113.3	34.9	0.2	86.8	87.3	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	14.3	1.9	31.3	4.1	3.7	0.5	19.8	40.2	5.2	7.1	44.7	3.2
LnGrp Delay(d),s/veh	194.5	40.9	159.6	93.0	47.1	44.6	177.1	75.1	24.9	156.8	133.7	31.1
LnGrp LOS	F	D	F	F	D	D	F	F	C	F	F	C
Approach Vol, veh/h		810			293			3010			1826	
Approach Delay, s/veh		160.4			73.3			82.6			128.6	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	75.4	13.8	46.2	27.0	63.0	20.0	40.0
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	10.1	69.6	9.3	41.2	22.5	57.2	15.5	35.0
Max Q Clear Time (g_c+I1), s	12.1	71.6	9.6	43.2	24.5	59.2	17.5	9.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	106.9
HCM 2010 LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	285	175	60	2464	1975	175
Future Volume (veh/h)	285	175	60	2464	1975	175
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1863	1866	1900
Adj Flow Rate, veh/h	300	184	63	2594	2079	184
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2
Cap, veh/h	500	230	82	2645	3116	273
Arrive On Green	0.14	0.14	0.05	0.75	0.65	0.65
Sat Flow, veh/h	3510	1615	1810	3632	4937	418
Grp Volume(v), veh/h	300	184	63	2594	1475	788
Grp Sat Flow(s),veh/h/ln	1755	1615	1810	1770	1698	1792
Q Serve(g_s), s	7.4	10.2	3.2	64.2	24.6	25.2
Cycle Q Clear(g_c), s	7.4	10.2	3.2	64.2	24.6	25.2
Prop In Lane	1.00	1.00	1.00			0.23
Lane Grp Cap(c), veh/h	500	230	82	2645	2219	1171
V/C Ratio(X)	0.60	0.80	0.77	0.98	0.66	0.67
Avail Cap(c_a), veh/h	701	323	176	2726	2219	1171
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	37.2	38.4	43.7	11.1	9.8	9.9
Incr Delay (d2), s/veh	1.2	9.2	14.0	12.9	0.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	5.2	1.9	35.0	11.5	12.8
LnGrp Delay(d),s/veh	38.4	47.7	57.7	24.0	10.6	11.5
LnGrp LOS	D	D	E	C	B	B
Approach Vol, veh/h	484			2657	2263	
Approach Delay, s/veh	41.9			24.8	10.9	
Approach LOS	D			C	B	

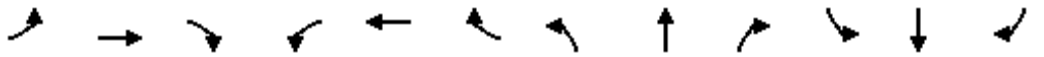
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		17.7	8.7	66.2				74.9
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		18.5	9.0	57.8				71.3
Max Q Clear Time (g_c+I1), s		12.2	5.2	27.2				66.2
Green Ext Time (p_c), s		1.0	0.0	30.5				3.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	336	320	625	105	240	214	485	1974	110	329	1620	231
Future Volume (veh/h)	336	320	625	105	240	214	485	1974	110	329	1620	231
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1845	1900	1900	1810	1900	1863	1863	1900	1863	1863	1845
Adj Flow Rate, veh/h	361	344	672	113	258	230	522	2123	118	354	1742	248
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	3	0	0	5	5	2	2	2	2	2	3
Cap, veh/h	259	846	385	112	275	234	573	1458	80	245	2029	613
Arrive On Green	0.14	0.24	0.24	0.06	0.16	0.16	0.17	0.43	0.43	0.14	0.40	0.40
Sat Flow, veh/h	1792	3505	1595	1810	1733	1478	3442	3410	188	1774	5085	1538
Grp Volume(v), veh/h	361	344	672	113	256	232	522	1092	1149	354	1742	248
Grp Sat Flow(s),veh/h/ln	1792	1752	1595	1810	1719	1491	1721	1770	1828	1774	1695	1538
Q Serve(g_s), s	21.0	12.0	35.0	9.0	21.3	22.5	21.6	62.0	62.0	20.0	45.4	16.8
Cycle Q Clear(g_c), s	21.0	12.0	35.0	9.0	21.3	22.5	21.6	62.0	62.0	20.0	45.4	16.8
Prop In Lane	1.00		1.00	1.00		0.99	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	259	846	385	112	273	237	573	757	782	245	2029	613
V/C Ratio(X)	1.39	0.41	1.75	1.01	0.94	0.98	0.91	1.44	1.47	1.45	0.86	0.40
Avail Cap(c_a), veh/h	259	846	385	112	273	237	593	757	782	245	2029	613
HCM Platoon Ratio	1.00	1.00	1.00	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	62.0	46.3	55.0	68.0	60.3	60.8	59.4	41.5	41.5	62.5	39.8	31.2
Incr Delay (d2), s/veh	198.0	1.1	346.1	86.6	38.5	53.1	18.9	206.8	218.5	222.5	4.1	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	24.7	5.9	52.4	7.2	13.1	12.8	11.8	73.7	78.7	24.9	22.1	7.2
LnGrp Delay(d),s/veh	260.0	47.4	401.1	154.6	98.8	113.9	78.2	248.3	260.0	285.0	43.9	31.8
LnGrp LOS	F	D	F	F	F	F	E	F	F	F	D	C
Approach Vol, veh/h		1377			601			2763			2344	
Approach Delay, s/veh		275.8			115.1			221.0			79.1	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	67.0	13.0	41.0	28.2	62.8	25.0	29.0
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	20.0	62.0	9.0	35.0	25.0	57.0	21.0	23.0
Max Q Clear Time (g_c+I1), s	22.0	64.0	11.0	37.0	23.6	47.4	23.0	24.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.6	9.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	175.7
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	170	380	130	105	55	155	1050	235	45	531	25
Future Volume (veh/h)	140	170	380	130	105	55	155	1050	235	45	531	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1724	1845	1900	1743	1792	1681	1848	1900	1900	1827	1624
Adj Flow Rate, veh/h	154	187	418	143	115	60	170	1154	258	49	584	27
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	12	12	3	9	9	6	13	3	3	0	4	17
Cap, veh/h	35	0	486	37	0	472	192	821	184	63	870	643
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.12	0.56	0.56	0.03	0.48	0.48
Sat Flow, veh/h	0	0	1565	0	0	1522	1601	1463	327	1810	1827	1350
Grp Volume(v), veh/h	341	0	418	258	0	60	170	0	1412	49	584	27
Grp Sat Flow(s),veh/h/ln	0	0	1565	0	0	1522	1601	0	1790	1810	1827	1350
Q Serve(g_s), s	0.0	0.0	37.6	0.0	0.0	4.2	15.7	0.0	84.1	4.0	36.9	1.6
Cycle Q Clear(g_c), s	46.5	0.0	37.6	46.5	0.0	4.2	15.7	0.0	84.1	4.0	36.9	1.6
Prop In Lane	0.45		1.00	0.55		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	35	0	486	37	0	472	192	0	1005	63	870	643
V/C Ratio(X)	9.78	0.00	0.86	6.91	0.00	0.13	0.89	0.00	1.41	0.77	0.67	0.04
Avail Cap(c_a), veh/h	35	0	486	37	0	472	273	0	1005	65	870	643
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.9	0.0	48.6	74.9	0.0	37.1	64.9	0.0	32.9	71.7	30.2	21.0
Incr Delay (d2), s/veh	4006.6	0.0	14.7	2714.3	0.0	0.1	22.1	0.0	188.5	43.0	3.0	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	40.2	0.0	18.3	29.7	0.0	1.8	8.1	0.0	93.9	2.8	19.2	0.6
LnGrp Delay(d),s/veh	4081.5	0.0	63.3	2789.2	0.0	37.2	87.0	0.0	221.4	114.7	33.2	21.0
LnGrp LOS	F		E	F		D	F		F	F	C	C
Approach Vol, veh/h		759			318			1582			660	
Approach Delay, s/veh		1868.6			2270.0			206.9			38.8	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.3	89.5		51.0	22.1	76.8		51.0
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	5.4	84.1		46.5	25.5	64.0		46.5
Max Q Clear Time (g_c+I1), s	6.0	86.1		48.5	17.7	38.9		48.5
Green Ext Time (p_c), s	0.0	0.0		0.0	0.3	24.6		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		751.2
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	240	50	836	145	295	50	775	846	190	836	41
Future Volume (veh/h)	70	240	50	836	145	295	50	775	846	190	836	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1839	1900	1881	1870	1900	1900	1845	1881	1900	1860	1900
Adj Flow Rate, veh/h	74	255	53	999	0	314	53	824	900	202	889	44
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	1	3	0	0	3	1	0	2	2
Cap, veh/h	212	351	72	1019	0	457	69	1262	575	182	1448	72
Arrive On Green	0.12	0.12	0.12	0.28	0.00	0.28	0.04	0.36	0.36	0.10	0.42	0.42
Sat Flow, veh/h	1740	2884	589	3583	0	1606	1810	3505	1596	1810	3423	169
Grp Volume(v), veh/h	74	153	155	999	0	314	53	824	900	202	459	474
Grp Sat Flow(s),veh/h/ln	1740	1747	1726	1792	0	1606	1810	1752	1596	1810	1767	1826
Q Serve(g_s), s	5.4	11.7	12.1	38.4	0.0	24.1	4.0	27.3	50.0	14.0	28.1	28.1
Cycle Q Clear(g_c), s	5.4	11.7	12.1	38.4	0.0	24.1	4.0	27.3	50.0	14.0	28.1	28.1
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	212	212	210	1019	0	457	69	1262	575	182	747	772
V/C Ratio(X)	0.35	0.72	0.74	0.98	0.00	0.69	0.77	0.65	1.57	1.11	0.61	0.61
Avail Cap(c_a), veh/h	351	352	348	1019	0	457	117	1262	575	182	747	772
HCM Platoon Ratio	1.00	1.00	1.00	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	56.0	58.7	58.9	49.3	0.0	44.2	66.2	37.2	44.4	62.4	31.2	31.2
Incr Delay (d2), s/veh	1.0	4.5	5.1	23.4	0.0	4.3	16.5	1.4	263.1	98.3	1.8	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	2.7	5.9	6.1	22.3	0.0	11.2	2.3	13.4	63.9	11.9	14.0	14.5
LnGrp Delay(d),s/veh	57.0	63.2	63.9	72.7	0.0	48.5	82.8	38.6	307.5	160.8	33.0	33.0
LnGrp LOS	E	E	E	E		D	F	D	F	F	C	C
Approach Vol, veh/h		382			1313			1777			1135	
Approach Delay, s/veh		62.3			66.9			176.1			55.7	
Approach LOS		E			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	55.0		21.9	9.3	63.7		44.0
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	14.0	50.0		28.0	9.0	55.0		39.5
Max Q Clear Time (g_c+I1), s	16.0	52.0		14.1	6.0	30.1		40.4
Green Ext Time (p_c), s	0.0	0.0		1.7	0.0	21.9		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		105.9
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	329	1140	25	35	1095	515	55	20	15	490	20	259
Future Volume (veh/h)	329	1140	25	35	1095	515	55	20	15	490	20	259
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1882	1900	1845	1881	1776	1900	1900	1900	1863	1866	1900
Adj Flow Rate, veh/h	343	1188	26	36	1141	0	57	21	16	525	0	270
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	1	1	3	1	7	0	0	0	2	0	0
Cap, veh/h	348	1738	38	45	1140	481	130	71	54	789	0	357
Arrive On Green	0.19	0.49	0.49	0.03	0.32	0.00	0.07	0.07	0.07	0.22	0.00	0.22
Sat Flow, veh/h	1810	3577	78	1757	3574	1509	1810	994	757	3548	0	1606
Grp Volume(v), veh/h	343	594	620	36	1141	0	57	0	37	525	0	270
Grp Sat Flow(s),veh/h/ln	1810	1788	1867	1757	1787	1509	1810	0	1751	1774	0	1606
Q Serve(g_s), s	18.9	25.6	25.7	2.0	32.0	0.0	3.0	0.0	2.0	13.5	0.0	15.8
Cycle Q Clear(g_c), s	18.9	25.6	25.7	2.0	32.0	0.0	3.0	0.0	2.0	13.5	0.0	15.8
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	348	868	907	45	1140	481	130	0	126	789	0	357
V/C Ratio(X)	0.99	0.68	0.68	0.80	1.00	0.00	0.44	0.00	0.29	0.67	0.00	0.76
Avail Cap(c_a), veh/h	348	868	907	89	1140	481	130	0	126	1132	0	512
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.4	19.9	19.9	48.6	34.2	0.0	44.6	0.0	44.1	35.6	0.0	36.5
Incr Delay (d2), s/veh	44.1	3.8	3.6	26.9	26.8	0.0	10.4	0.0	5.9	1.4	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	13.7	13.4	14.0	1.3	19.9	0.0	1.9	0.0	1.2	6.8	0.0	7.5
LnGrp Delay(d),s/veh	84.5	23.6	23.5	75.5	61.0	0.0	55.0	0.0	50.0	37.0	0.0	41.6
LnGrp LOS	F	C	C	E	F		E		D	D		D
Approach Vol, veh/h		1557			1177			94			795	
Approach Delay, s/veh		37.0			61.4			53.1			38.5	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.2	7.1	53.7		27.3	23.8	37.0
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		7.2	5.1	46.2		32.0	19.3	32.0
Max Q Clear Time (g_c+I1), s		5.0	4.0	27.7		17.8	20.9	34.0
Green Ext Time (p_c), s		0.1	0.0	18.1		4.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1125	535	640	1355	0	0	0	0	70	5	330
Future Volume (veh/h)	0	1125	535	640	1355	0	0	0	0	70	5	330
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1881	1863	1863	1827	0				1900	1863	1900
Adj Flow Rate, veh/h	0	1184	563	674	1426	0				74	5	347
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	1	2	2	4	0				0	0	0
Cap, veh/h	0	1223	540	677	2650	0				309	4	267
Arrive On Green	0.00	0.34	0.34	0.38	0.76	0.00				0.17	0.17	0.17
Sat Flow, veh/h	0	3668	1579	1774	3563	0				1810	23	1565
Grp Volume(v), veh/h	0	1184	563	674	1426	0				74	0	352
Grp Sat Flow(s),veh/h/ln	0	1787	1579	1774	1736	0				1810	0	1587
Q Serve(g_s), s	0.0	45.6	47.9	53.1	23.1	0.0				5.0	0.0	23.9
Cycle Q Clear(g_c), s	0.0	45.6	47.9	53.1	23.1	0.0				5.0	0.0	23.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1223	540	677	2650	0				309	0	271
V/C Ratio(X)	0.00	0.97	1.04	1.00	0.54	0.00				0.24	0.00	1.30
Avail Cap(c_a), veh/h	0	1223	540	677	2650	0				309	0	271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.67	0.67	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	45.3	46.0	43.2	6.6	0.0				50.2	0.0	58.1
Incr Delay (d2), s/veh	0.0	14.8	43.2	9.5	0.1	0.0				0.1	0.0	159.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	25.0	27.3	27.8	10.9	0.0				2.5	0.0	22.4
LnGrp Delay(d),s/veh	0.0	60.1	89.2	52.7	6.7	0.0				50.3	0.0	217.1
LnGrp LOS		E	F	D	A					D		F
Approach Vol, veh/h		1747			2100						426	
Approach Delay, s/veh		69.5			21.5						188.1	
Approach LOS		E			C						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	59.0	53.0		28.0		112.0		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	53.4	47.9		23.9		106.9		
Max Q Clear Time (g_c+I1), s	55.1	49.9		25.9		25.1		
Green Ext Time (p_c), s	0.0	0.0		0.0		34.7		

Intersection Summary	
HCM 2010 Ctrl Delay	57.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	885	0	0	1550	135	445	5	570	0	0	0
Future Volume (veh/h)	310	885	0	0	1550	135	445	5	570	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1881	0	0	1881	1881	1810	1848	1863			
Adj Flow Rate, veh/h	337	962	0	0	1685	147	700	0	392			
Adj No. of Lanes	1	2	0	0	2	1	2	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	1	0	0	1	1	5	0	2			
Cap, veh/h	328	2445	0	0	1658	742	789	0	363			
Arrive On Green	0.19	0.68	0.00	0.00	0.46	0.46	0.23	0.00	0.23			
Sat Flow, veh/h	1774	3668	0	0	3668	1599	3447	0	1583			
Grp Volume(v), veh/h	337	962	0	0	1685	147	700	0	392			
Grp Sat Flow(s),veh/h/ln	1774	1787	0	0	1787	1599	1723	0	1583			
Q Serve(g_s), s	18.5	11.6	0.0	0.0	46.4	5.4	19.6	0.0	22.9			
Cycle Q Clear(g_c), s	18.5	11.6	0.0	0.0	46.4	5.4	19.6	0.0	22.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	328	2445	0	0	1658	742	789	0	363			
V/C Ratio(X)	1.03	0.39	0.00	0.00	1.02	0.20	0.89	0.00	1.08			
Avail Cap(c_a), veh/h	328	2445	0	0	1658	742	789	0	363			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.26	0.26	0.00	0.00	0.66	0.66	1.00	0.00	1.00			
Uniform Delay (d), s/veh	40.8	6.8	0.0	0.0	26.8	15.8	37.3	0.0	38.5			
Incr Delay (d2), s/veh	32.4	0.1	0.0	0.0	22.1	0.4	12.2	0.0	70.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	12.0	5.7	0.0	0.0	27.9	2.4	10.7	0.0	17.1			
LnGrp Delay(d),s/veh	73.1	7.0	0.0	0.0	48.9	16.2	49.5	0.0	109.2			
LnGrp LOS	F	A			F	B	D		F			
Approach Vol, veh/h		1299			1832			1092				
Approach Delay, s/veh		24.1			46.2			70.9				
Approach LOS		C			D			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		73.0			22.0	51.0		27.0
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		68.4			18.5	46.4		22.9
Max Q Clear Time (g_c+I1), s		13.6			20.5	48.4		24.9
Green Ext Time (p_c), s		27.5			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	1060	340	57	1440	0	250	0	57	0	0	0
Future Volume (veh/h)	55	1060	340	57	1440	0	250	0	57	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1858	1900	1900	1863	0	1827	0	1810			
Adj Flow Rate, veh/h	60	1165	374	63	1582	0	275	0	63			
Adj No. of Lanes	1	3	0	1	3	0	1	0	1			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	2	2	0	2	0	4	0	5			
Cap, veh/h	127	1683	540	87	2154	0	362	0	320			
Arrive On Green	0.07	0.45	0.45	0.05	0.42	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	1810	3777	1212	1810	5253	0	1740	0	1538			
Grp Volume(v), veh/h	60	1043	496	63	1582	0	275	0	63			
Grp Sat Flow(s),veh/h/ln	1810	1691	1607	1810	1695	0	1740	0	1538			
Q Serve(g_s), s	1.4	11.2	11.2	1.6	11.8	0.0	6.7	0.0	1.5			
Cycle Q Clear(g_c), s	1.4	11.2	11.2	1.6	11.8	0.0	6.7	0.0	1.5			
Prop In Lane	1.00		0.75	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	127	1507	716	87	2154	0	362	0	320			
V/C Ratio(X)	0.47	0.69	0.69	0.72	0.73	0.00	0.76	0.00	0.20			
Avail Cap(c_a), veh/h	240	1507	716	224	2188	0	806	0	713			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	20.3	10.1	10.1	21.3	10.9	0.0	16.9	0.0	14.8			
Incr Delay (d2), s/veh	2.7	2.0	4.1	10.6	1.8	0.0	3.3	0.0	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			
%ile BackOfQ(50%),veh/ln	0.8	5.5	5.6	1.0	5.8	0.0	3.5	0.0	0.7			
LnGrp Delay(d),s/veh	23.0	12.1	14.2	31.8	12.7	0.0	20.2	0.0	15.1			
LnGrp LOS	C	B	B	C	B		C		B			
Approach Vol, veh/h		1599			1645			338				
Approach Delay, s/veh		13.1			13.4			19.2				
Approach LOS		B			B			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	6.2	25.2			7.2	24.2		13.9
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.6	19.9			6.0	19.5		21.0
Max Q Clear Time (g_c+I1), s	3.6	13.2			3.4	13.8		8.7
Green Ext Time (p_c), s	0.0	6.7			0.0	5.4		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	2482	1921	5
Future Vol, veh/h	0	20	5	2482	1921	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	2559	1980	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	993	1985	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.2	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.95	3.1	-	-	-
Pot Cap-1 Maneuver	0	205	130	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	205	130	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.5	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	130	-	205	-	-
HCM Lane V/C Ratio	0.04	-	0.101	-	-
HCM Control Delay (s)	33.8	-	24.5	-	-
HCM Lane LOS	D	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	325	125	165	200	100	50	524	305	175	284	100
Future Volume (veh/h)	70	325	125	165	200	100	50	524	305	175	284	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	76	353	136	179	217	109	54	570	332	190	309	109
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	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	98	351	135	206	392	197	77	569	331	215	881	305
Arrive On Green	0.05	0.27	0.27	0.12	0.34	0.34	0.04	0.26	0.26	0.12	0.34	0.34
Sat Flow, veh/h	1774	1282	494	1774	1171	588	1774	2156	1255	1774	2581	893
Grp Volume(v), veh/h	76	0	489	179	0	326	54	468	434	190	210	208
Grp Sat Flow(s),veh/h/ln	1774	0	1776	1774	0	1759	1774	1770	1641	1774	1770	1705
Q Serve(g_s), s	3.4	0.0	21.9	7.9	0.0	12.1	2.4	21.1	21.1	8.4	7.1	7.3
Cycle Q Clear(g_c), s	3.4	0.0	21.9	7.9	0.0	12.1	2.4	21.1	21.1	8.4	7.1	7.3
Prop In Lane	1.00		0.28	1.00		0.33	1.00		0.76	1.00		0.52
Lane Grp Cap(c), veh/h	98	0	486	206	0	589	77	467	433	215	604	582
V/C Ratio(X)	0.78	0.00	1.01	0.87	0.00	0.55	0.70	1.00	1.00	0.88	0.35	0.36
Avail Cap(c_a), veh/h	140	0	486	206	0	589	149	467	433	215	604	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	0.00	1.00	0.57	0.00	0.57	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	29.1	34.7	0.0	21.7	37.7	29.5	29.5	34.6	19.7	19.8
Incr Delay (d2), s/veh	16.0	0.0	42.3	19.4	0.0	0.6	10.7	42.2	44.0	32.1	1.6	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	2.1	0.0	16.4	5.0	0.0	6.0	1.4	15.7	14.8	6.0	3.7	3.7
LnGrp Delay(d),s/veh	53.3	0.0	71.4	54.1	0.0	22.4	48.4	71.7	73.5	66.7	21.3	21.5
LnGrp LOS	D		F	D		C	D	F	F	E	C	C
Approach Vol, veh/h		565			505			956			608	
Approach Delay, s/veh		69.0			33.6			71.2			35.5	
Approach LOS		E			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	25.6	13.8	26.4	8.0	31.8	8.9	31.3
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	9.7	21.1	9.3	21.9	6.7	24.1	6.3	24.9
Max Q Clear Time (g_c+I1), s	10.4	23.1	9.9	23.9	4.4	9.3	5.4	14.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	7.5	0.0	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	55.3
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	817	130	29	1012	50	120	5	39	95	10	355
Future Volume (veh/h)	170	817	130	29	1012	50	120	5	39	95	10	355
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	185	888	141	32	1100	54	130	5	42	103	215	250
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	1635	258	176	1822	89	192	19	156	70	147	188
Arrive On Green	0.12	0.37	0.37	0.10	0.37	0.37	0.11	0.11	0.11	0.12	0.12	0.12
Sat Flow, veh/h	1774	4429	700	1774	4966	244	1774	171	1438	594	1239	1583
Grp Volume(v), veh/h	185	679	350	32	751	403	130	0	47	318	0	250
Grp Sat Flow(s),veh/h/ln	1774	1695	1739	1774	1695	1820	1774	0	1609	1833	0	1583
Q Serve(g_s), s	6.1	9.3	9.4	1.0	10.6	10.6	4.2	0.0	1.6	7.0	0.0	7.0
Cycle Q Clear(g_c), s	6.1	9.3	9.4	1.0	10.6	10.6	4.2	0.0	1.6	7.0	0.0	7.0
Prop In Lane	1.00		0.40	1.00		0.13	1.00		0.89	0.32		1.00
Lane Grp Cap(c), veh/h	210	1252	642	176	1244	668	192	0	174	217	0	188
V/C Ratio(X)	0.88	0.54	0.55	0.18	0.60	0.60	0.68	0.00	0.27	1.46	0.00	1.33
Avail Cap(c_a), veh/h	210	1493	766	176	1378	740	901	0	817	217	0	188
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	25.6	14.7	14.7	24.4	15.2	15.2	25.3	0.0	24.2	26.0	0.0	26.0
Incr Delay (d2), s/veh	32.0	1.3	2.6	0.5	1.8	3.3	4.1	0.0	0.8	232.1	0.0	181.2
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	4.6	4.9	0.5	5.2	5.9	2.2	0.0	0.7	17.5	0.0	12.5
LnGrp Delay(d),s/veh	57.6	16.0	17.3	24.9	17.0	18.5	29.5	0.0	25.0	258.2	0.0	207.2
LnGrp LOS	E	B	B	C	B	B	C		C	F		F
Approach Vol, veh/h		1214			1186			177			568	
Approach Delay, s/veh		22.7			17.7			28.3			235.7	
Approach LOS		C			B			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.9	26.8		10.4	11.0	26.7		11.0
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 26		30.0	7.0	24.0		7.0
Max Q Clear Time (g_c+I1), s	3.0	11.4		6.2	8.1	12.6		9.0
Green Ext Time (p_c), s	1.8	10.4		0.6	0.0	9.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	59.6
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	0	83	402	0	161	48	2227	387	142	1739	60
Future Volume (veh/h)	105	0	83	402	0	161	48	2227	387	142	1739	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	114	0	90	437	0	175	52	2421	421	154	1890	65
Adj No. of Lanes	1	1	0	2	1	0	1	3	1	1	3	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	142	0	132	480	0	226	67	2633	1040	174	2918	100
Arrive On Green	0.08	0.00	0.08	0.14	0.00	0.14	0.04	0.52	0.52	0.10	0.58	0.58
Sat Flow, veh/h	1774	0	1583	3442	0	1583	1774	5085	1583	1774	5049	173
Grp Volume(v), veh/h	114	0	90	437	0	175	52	2421	421	154	1268	687
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1721	0	1583	1774	1695	1583	1774	1695	1832
Q Serve(g_s), s	7.0	0.0	6.1	13.9	0.0	11.9	3.2	48.7	13.8	9.5	28.1	28.1
Cycle Q Clear(g_c), s	7.0	0.0	6.1	13.9	0.0	11.9	3.2	48.7	13.8	9.5	28.1	28.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	142	0	132	480	0	226	67	2633	1040	174	1959	1059
V/C Ratio(X)	0.80	0.00	0.68	0.91	0.00	0.78	0.78	0.92	0.40	0.89	0.65	0.65
Avail Cap(c_a), veh/h	242	0	256	480	0	260	145	2633	1040	174	1959	1059
HCM Platoon Ratio	1.00	1.00	1.00	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	50.3	0.0	49.6	47.2	0.0	46.0	53.1	24.7	8.9	49.6	15.8	15.8
Incr Delay (d2), s/veh	10.2	0.0	6.1	21.6	0.0	11.9	17.2	6.6	1.2	38.0	1.7	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	3.9	0.0	2.9	8.1	0.0	5.9	1.9	24.3	6.3	6.5	13.5	15.0
LnGrp Delay(d),s/veh	60.5	0.0	55.7	68.8	0.0	57.9	70.2	31.3	10.1	87.5	17.5	18.9
LnGrp LOS	E		E	E		E	E	C	B	F	B	B
Approach Vol, veh/h		204			612			2894			2109	
Approach Delay, s/veh		58.4			65.7			28.9			23.1	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	62.1	20.0	13.7	8.7	68.8	13.4	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	10.9	57.6	15.5	18.0	9.1	59.4	15.2	18.3
Max Q Clear Time (g_c+I1), s	11.5	50.7	15.9	8.1	5.2	30.1	9.0	13.9
Green Ext Time (p_c), s	0.0	6.8	0.0	1.1	0.0	28.9	0.1	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	31.7
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	690	7	0	233	0	3
Future Vol, veh/h	690	7	0	233	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	-	-	-	-	-	-
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	750	8	0	253	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	754
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	409
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	409
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	409	-	-	-
HCM Lane V/C Ratio	0.008	-	-	-
HCM Control Delay (s)	13.9	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	480	638	194	365	0	1233	0	354	0	0	0
Future Volume (veh/h)	5	480	638	194	365	0	1233	0	354	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1776	1845	1776	1792	1900	1810	1827	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	500	0	202	380	0	1284	0	369	0	0	0
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	7	3	7	6	6	5	0	0	0	0	0
Cap, veh/h	11	423	374	162	588	0	981	0	884	1	1	0
Arrive On Green	0.01	0.24	0.00	0.10	0.33	0.00	0.57	0.00	0.57	0.00	0.00	0.00
Sat Flow, veh/h	1810	1776	1568	1691	1792	0	1723	0	1553	1810	1900	0
Grp Volume(v), veh/h	5	500	0	202	380	0	1284	0	369	0	0	0
Grp Sat Flow(s),veh/h/ln	1810	1776	1568	1691	1792	0	1723	0	1553	1810	1900	0
Q Serve(g_s), s	0.4	33.5	0.0	13.5	25.4	0.0	80.0	0.0	18.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	33.5	0.0	13.5	25.4	0.0	80.0	0.0	18.9	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	11	423	374	162	588	0	981	0	884	1	1	0
V/C Ratio(X)	0.44	1.18	0.00	1.24	0.65	0.00	1.31	0.00	0.42	0.00	0.00	0.00
Avail Cap(c_a), veh/h	64	423	374	162	588	0	981	0	884	64	68	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	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	69.6	53.5	0.0	63.5	40.2	0.0	30.2	0.0	17.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	24.2	103.3	0.0	150.6	2.4	0.0	146.2	0.0	0.3	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	0.3	28.5	0.0	13.1	13.0	0.0	77.7	0.0	8.2	0.0	0.0	0.0
LnGrp Delay(d),s/veh	93.8	156.8	0.0	214.1	42.7	0.0	176.5	0.0	17.4	0.0	0.0	0.0
LnGrp LOS	F	F		F	D		F		B			
Approach Vol, veh/h		505			582			1653			0	
Approach Delay, s/veh		156.2			102.2			141.0			0.0	
Approach LOS		F			F			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		84.5	18.0	38.0		0.0	5.4	50.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		80.0	13.5	33.5		5.0	5.0	42.0
Max Q Clear Time (g_c+I1), s		82.0	15.5	35.5		0.0	2.4	27.4
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	135.5
HCM 2010 LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	17	285	2001	17	240	1035
Future Volume (veh/h)	17	285	2001	17	240	1035
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1863	1900	1863	1810
Adj Flow Rate, veh/h	18	306	2152	18	258	1113
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	2	2	2	5
Cap, veh/h	13	218	2161	18	272	2711
Arrive On Green	0.14	0.14	0.60	0.60	0.15	0.79
Sat Flow, veh/h	90	1530	3691	30	1774	3529
Grp Volume(v), veh/h	325	0	1057	1113	258	1113
Grp Sat Flow(s),veh/h/ln	1625	0	1770	1858	1774	1719
Q Serve(g_s), s	18.5	0.0	77.0	77.5	18.7	13.2
Cycle Q Clear(g_c), s	18.5	0.0	77.0	77.5	18.7	13.2
Prop In Lane	0.06	0.94		0.02	1.00	
Lane Grp Cap(c), veh/h	231	0	1063	1116	272	2711
V/C Ratio(X)	1.41	0.00	0.99	1.00	0.95	0.41
Avail Cap(c_a), veh/h	231	0	1063	1116	272	2711
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	55.8	0.0	25.7	25.8	54.6	4.3
Incr Delay (d2), s/veh	206.1	0.0	26.3	26.3	41.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.5	0.0	45.0	47.4	12.3	6.4
LnGrp Delay(d),s/veh	261.9	0.0	52.0	52.1	95.6	4.8
LnGrp LOS	F		D	D	F	A
Approach Vol, veh/h	325		2170			1371
Approach Delay, s/veh	261.9		52.0			21.9
Approach LOS	F		D			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	24.4	82.6				107.0		23.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	19.9	78.1				102.5		18.5
Max Q Clear Time (g_c+I1), s	20.7	79.5				15.2		20.5
Green Ext Time (p_c), s	0.0	0.0				72.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	59.0
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	5	37	5	10	10	1803	382	20	1332	5
Future Vol, veh/h	5	5	5	37	5	10	10	1803	382	20	1332	5
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	-	-	30	-	-	30	105	-	-	105	-	-
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, %	0	0	0	0	0	0	0	2	1	0	5	0
Mvmt Flow	5	5	5	40	5	11	11	1960	415	22	1448	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2498	3891	727	2959	3686	1188	1453	0	0	2375	0	0
Stage 1	1494	1494	-	2189	2189	-	-	-	-	-	-	-
Stage 2	1004	2397	-	770	1497	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	15	~ 4	371	~ 7	~ 5	184	472	-	-	207	-	-
Stage 1	131	188	-	48	85	-	-	-	-	-	-	-
Stage 2	263	66	-	364	188	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 3	371	-	~ 4	184	472	-	-	207	-	-
Mov Cap-2 Maneuver	-	~ 3	-	-	~ 4	-	-	-	-	-	-	-
Stage 1	128	168	-	47	83	-	-	-	-	-	-	-
Stage 2	226	64	-	310	168	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.1	0.4
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	472	-	-	-	371	-	184	207	-	-
HCM Lane V/C Ratio	0.023	-	-	-	0.015	-	0.059	0.105	-	-
HCM Control Delay (s)	12.8	-	-	-	14.8	-	25.8	24.4	-	-
HCM Lane LOS	B	-	-	-	B	-	D	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	0	-	0.2	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	65	187	50	25	20	117	384	90	15	189	130
Future Volume (veh/h)	285	65	187	50	25	20	117	384	90	15	189	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1826	1810	1900	1875	1900	1827	1866	1900	1900	1810	1827
Adj Flow Rate, veh/h	320	73	210	56	28	22	131	431	101	17	212	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	5	5	5	5	4	2	2	0	5	4
Cap, veh/h	372	85	400	75	38	29	167	565	132	36	562	482
Arrive On Green	0.26	0.26	0.26	0.08	0.08	0.08	0.10	0.39	0.39	0.02	0.31	0.00
Sat Flow, veh/h	1428	326	1538	932	466	366	1740	1463	343	1810	1810	1553
Grp Volume(v), veh/h	393	0	210	106	0	0	131	0	532	17	212	0
Grp Sat Flow(s),veh/h/ln	1754	0	1538	1764	0	0	1740	0	1806	1810	1810	1553
Q Serve(g_s), s	15.2	0.0	8.3	4.2	0.0	0.0	5.2	0.0	18.2	0.7	6.5	0.0
Cycle Q Clear(g_c), s	15.2	0.0	8.3	4.2	0.0	0.0	5.2	0.0	18.2	0.7	6.5	0.0
Prop In Lane	0.81		1.00	0.53		0.21	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	456	0	400	142	0	0	167	0	698	36	562	482
V/C Ratio(X)	0.86	0.00	0.52	0.75	0.00	0.00	0.78	0.00	0.76	0.47	0.38	0.00
Avail Cap(c_a), veh/h	530	0	465	446	0	0	320	0	698	127	562	482
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.1	0.0	22.6	32.0	0.0	0.0	31.5	0.0	19.0	34.5	19.2	0.0
Incr Delay (d2), s/veh	12.2	0.0	1.1	7.6	0.0	0.0	7.8	0.0	7.7	9.1	1.9	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	8.9	0.0	3.7	2.3	0.0	0.0	2.9	0.0	10.5	0.4	3.5	0.0
LnGrp Delay(d),s/veh	37.3	0.0	23.6	39.6	0.0	0.0	39.3	0.0	26.7	43.6	21.1	0.0
LnGrp LOS	D		C	D			D		C	D	C	
Approach Vol, veh/h		603			106			663			229	
Approach Delay, s/veh		32.5			39.6			29.2			22.8	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	32.0		23.0	11.3	26.6		10.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	27.5		21.5	13.1	19.4		18.0
Max Q Clear Time (g_c+I1), s	2.7	20.2		17.2	7.2	8.5		6.2
Green Ext Time (p_c), s	0.0	2.8		1.3	0.1	3.6		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	30.2
HCM 2010 LOS	C

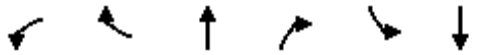
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	28	533	350	1
Future Vol, veh/h	0	11	28	533	350	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	4	2	3	0
Mvmt Flow	0	13	33	620	407	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1093	408	408	0	-	0
Stage 1	408	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	239	648	1140	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	504	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	232	648	1140	-	-	-
Mov Cap-2 Maneuver	232	-	-	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	489	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1140	-	648	-	-
HCM Lane V/C Ratio	0.029	-	0.02	-	-
HCM Control Delay (s)	8.3	-	10.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	160	401	27	260	101
Future Volume (veh/h)	12	160	401	27	260	101
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1852	1900	1874	1900	1810	1881
Adj Flow Rate, veh/h	14	182	456	31	295	115
Adj No. of Lanes	0	0	1	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	1	1	5	1
Cap, veh/h	18	228	694	47	349	1285
Arrive On Green	0.16	0.16	0.40	0.40	0.20	0.68
Sat Flow, veh/h	113	1467	1735	118	1723	1881
Grp Volume(v), veh/h	197	0	0	487	295	115
Grp Sat Flow(s),veh/h/ln	1588	0	0	1853	1723	1881
Q Serve(g_s), s	6.7	0.0	0.0	11.9	9.2	1.1
Cycle Q Clear(g_c), s	6.7	0.0	0.0	11.9	9.2	1.1
Prop In Lane	0.07	0.92		0.06	1.00	
Lane Grp Cap(c), veh/h	246	0	0	741	349	1285
V/C Ratio(X)	0.80	0.00	0.00	0.66	0.85	0.09
Avail Cap(c_a), veh/h	514	0	0	741	418	1285
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	0.0	0.0	13.6	21.3	3.0
Incr Delay (d2), s/veh	5.9	0.0	0.0	4.5	12.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.0	6.9	5.6	0.6
LnGrp Delay(d),s/veh	28.6	0.0	0.0	18.1	34.2	3.1
LnGrp LOS	C			B	C	A
Approach Vol, veh/h	197		487			410
Approach Delay, s/veh	28.6		18.1			25.4
Approach LOS	C		B			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.8	26.7				42.5		13.1
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	13.5	20.0				38.0		18.0
Max Q Clear Time (g_c+I1), s	11.2	13.9				3.1		8.7
Green Ext Time (p_c), s	0.2	1.9				4.3		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	100	0	353	20	0	201
Future Vol, veh/h	100	0	353	20	0	201
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	106	0	376	21	0	214

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	600	386	0	0	397	0
Stage 1	386	-	-	-	-	-
Stage 2	214	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	467	666	-	-	1173	-
Stage 1	691	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	467	666	-	-	1173	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	826	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	467	-	1173	-
HCM Lane V/C Ratio	-	-	0.228	-	-	-
HCM Control Delay (s)	-	-	15	0	0	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0.9	-	0	-

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	0	0	38	0	8	0	365	44	8	243	0
Future Vol, veh/h	0	0	0	38	0	8	0	365	44	8	243	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	3	0	0	0	2	0	0	3	0
Mvmt Flow	0	0	0	42	0	9	0	401	48	9	267	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	715	734	267	710	710	425	267	0	0	449	0	0
Stage 1	285	285	-	425	425	-	-	-	-	-	-	-
Stage 2	430	449	-	285	285	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	348	350	777	347	361	634	1308	-	-	1122	-	-
Stage 1	727	679	-	605	590	-	-	-	-	-	-	-
Stage 2	607	576	-	720	679	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	341	347	777	345	358	634	1308	-	-	1122	-	-
Mov Cap-2 Maneuver	341	347	-	345	358	-	-	-	-	-	-	-
Stage 1	727	674	-	605	590	-	-	-	-	-	-	-
Stage 2	599	576	-	714	674	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	16.1	0	0.3
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1308	-	-	-	375	1122	-	-
HCM Lane V/C Ratio	-	-	-	-	0.135	0.008	-	-
HCM Control Delay (s)	0	-	-	0	16.1	8.2	-	-
HCM Lane LOS	A	-	-	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	159	42	367	160	38	243
Future Vol, veh/h	159	42	367	160	38	243
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	181	48	417	182	43	276

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	871	508	0	0	599	0
Stage 1	508	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	324	569	-	-	988	-
Stage 1	608	-	-	-	-	-
Stage 2	708	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	310	569	-	-	988	-
Mov Cap-2 Maneuver	433	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	677	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.6	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	433	569	988	-
HCM Lane V/C Ratio	-	-	0.417	0.084	0.044	-
HCM Control Delay (s)	-	-	19.1	11.9	8.8	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	2	0.3	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	31	25	500	354	3
Future Vol, veh/h	3	31	25	500	354	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	3	4	2	3	0
Mvmt Flow	3	35	28	562	398	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1017	399	401	0	-	0
Stage 1	399	-	-	-	-	-
Stage 2	618	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.236	-	-	-
Pot Cap-1 Maneuver	266	649	1147	-	-	-
Stage 1	682	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	260	649	1147	-	-	-
Mov Cap-2 Maneuver	387	-	-	-	-	-
Stage 1	682	-	-	-	-	-
Stage 2	529	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1147	-	612	-	-
HCM Lane V/C Ratio	0.024	-	0.062	-	-
HCM Control Delay (s)	8.2	-	11.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

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	0	0	119	0	0	10	174	1115	0	0	860	25
Future Vol, veh/h	0	0	119	0	0	10	174	1115	0	0	860	25
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	7	4	3	0	33	1	0
Mvmt Flow	0	0	125	0	0	11	183	1174	0	0	905	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	905	2445	2445	1174	905	0	0	1174	0	0
Stage 1	-	-	-	1540	1540	-	-	-	-	-	-	-
Stage 2	-	-	-	905	905	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.21	7.1	6.5	6.27	4.14	-	-	4.43	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.309	3.5	4	3.363	2.236	-	-	2.497	-	-
Pot Cap-1 Maneuver	0	0	336	22	32	228	743	-	-	497	-	-
Stage 1	0	0	-	146	179	-	-	-	-	-	-	-
Stage 2	0	0	-	334	358	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	336	11	24	228	743	-	-	497	-	-
Mov Cap-2 Maneuver	-	-	-	11	24	-	-	-	-	-	-	-
Stage 1	-	-	-	110	135	-	-	-	-	-	-	-
Stage 2	-	-	-	209	358	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.9	21.6	1.5	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	743	-	-	336	228	497	-	-
HCM Lane V/C Ratio	0.247	-	-	0.373	0.046	-	-	-
HCM Control Delay (s)	11.4	-	-	21.9	21.6	0	-	-
HCM Lane LOS	B	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	1	-	-	1.7	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	693	5	11	230	6	6
Future Vol, veh/h	693	5	11	230	6	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	753	5	12	250	7	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	759	0	1030	756
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	274	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	852	-	259	408
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	772	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	852	-	255	408
Mov Cap-2 Maneuver	-	-	-	-	368	-
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	761	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	14.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	387	-	-	852	-
HCM Lane V/C Ratio	0.034	-	-	0.014	-
HCM Control Delay (s)	14.6	-	-	9.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	85	292	123	40	20	271	354	258	30	215	30
Future Volume (veh/h)	75	85	292	123	40	20	271	354	258	30	215	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1667	1827	1881	1810	1900	1863	1863	1845	1900	1854	1900
Adj Flow Rate, veh/h	93	105	360	152	49	25	335	437	319	37	265	37
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	2	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	8	14	4	1	5	5	2	2	3	0	2	2
Cap, veh/h	456	454	414	237	149	76	358	638	528	46	492	68
Arrive On Green	0.27	0.27	0.27	0.13	0.13	0.13	0.20	0.34	0.34	0.03	0.16	0.16
Sat Flow, veh/h	1675	1667	1520	1792	1123	573	1774	1863	1543	1810	3086	424
Grp Volume(v), veh/h	93	105	360	152	0	74	335	437	319	37	149	153
Grp Sat Flow(s),veh/h/ln	1675	1667	1520	1792	0	1696	1774	1863	1543	1810	1761	1749
Q Serve(g_s), s	3.3	3.8	17.4	6.2	0.0	3.0	14.3	15.5	13.2	1.6	6.0	6.2
Cycle Q Clear(g_c), s	3.3	3.8	17.4	6.2	0.0	3.0	14.3	15.5	13.2	1.6	6.0	6.2
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	456	454	414	237	0	224	358	638	528	46	281	279
V/C Ratio(X)	0.20	0.23	0.87	0.64	0.00	0.33	0.94	0.69	0.60	0.81	0.53	0.55
Avail Cap(c_a), veh/h	611	608	554	653	0	618	358	788	653	94	470	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)	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	21.5	21.7	26.7	31.6	0.0	30.2	30.2	21.7	20.9	37.2	29.7	29.7
Incr Delay (d2), s/veh	0.1	0.1	9.0	1.1	0.0	0.3	31.5	1.1	0.4	11.6	0.6	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	1.7	8.3	3.1	0.0	1.4	10.1	8.1	5.6	0.9	3.0	3.0
LnGrp Delay(d),s/veh	21.6	21.8	35.6	32.7	0.0	30.6	61.7	22.8	21.4	48.9	30.2	30.4
LnGrp LOS	C	C	D	C		C	E	C	C	D	C	C
Approach Vol, veh/h		558			226			1091			339	
Approach Delay, s/veh		30.7			32.0			34.3			32.3	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	31.8		24.9	20.0	17.7		14.2
Change Period (Y+Rc), s	4.0	5.5		4.0	4.5	5.5		4.0
Max Green Setting (Gmax), s	4.0	32.5		28.0	15.5	20.5		28.0
Max Q Clear Time (g_c+I1), s	3.6	17.5		19.4	16.3	8.2		8.2
Green Ext Time (p_c), s	0.0	3.3		0.9	0.0	3.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	15	10	80	20	275	20	596	120	405	508	10
Future Volume (veh/h)	10	15	10	80	20	275	20	596	120	405	508	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1845	1900	1881	1845	1863	1846	1900
Adj Flow Rate, veh/h	11	17	11	91	23	312	23	677	136	460	577	11
Adj No. of Lanes	0	1	0	0	1	1	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	3	0	1	3	2	3	3
Cap, veh/h	105	147	77	285	64	712	27	748	617	499	1198	23
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.02	0.40	0.40	0.28	0.66	0.66
Sat Flow, veh/h	275	848	441	1182	367	1559	1810	1881	1552	1774	1804	34
Grp Volume(v), veh/h	39	0	0	114	0	312	23	677	136	460	0	588
Grp Sat Flow(s),veh/h/ln	1564	0	0	1549	0	1559	1810	1881	1552	1774	0	1838
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	11.1	1.0	27.6	4.7	20.5	0.0	12.9
Cycle Q Clear(g_c), s	4.9	0.0	0.0	4.9	0.0	11.1	1.0	27.6	4.7	20.5	0.0	12.9
Prop In Lane	0.28		0.28	0.80		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	328	0	0	349	0	712	27	748	617	499	0	1220
V/C Ratio(X)	0.12	0.00	0.00	0.33	0.00	0.44	0.84	0.91	0.22	0.92	0.00	0.48
Avail Cap(c_a), veh/h	408	0	0	428	0	796	122	774	639	567	0	1220
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	0.0	29.8	0.0	15.1	40.0	23.1	16.2	28.4	0.0	6.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.5	0.0	0.4	21.5	14.0	0.2	18.8	0.0	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	0.0	0.0	2.3	0.0	4.8	0.7	17.2	2.0	12.6	0.0	6.5
LnGrp Delay(d),s/veh	28.6	0.0	0.0	30.3	0.0	15.5	61.5	37.1	16.4	47.2	0.0	7.1
LnGrp LOS	C			C		B	E	D	B	D		A
Approach Vol, veh/h		39			426			836			1048	
Approach Delay, s/veh		28.6			19.5			34.4			24.7	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	26.9	36.4		18.1	5.2	58.0		18.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	26.0	33.5		18.5	5.5	54.0		18.5
Max Q Clear Time (g_c+I1), s	22.5	29.6		6.9	3.0	14.9		13.1
Green Ext Time (p_c), s	0.4	2.8		1.6	0.0	12.3		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	35	45	50	70	50	275	600	105	30	165	530
Future Volume (veh/h)	65	35	45	50	70	50	275	600	105	30	165	530
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1839	1810	1845	1857	1900	1881	1868	1900	1845	1827	1881
Adj Flow Rate, veh/h	73	39	51	56	79	56	309	674	118	34	185	0
Adj No. of Lanes	0	1	1	1	1	0	1	2	0	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	5	3	4	4	1	2	2	3	4	1
Cap, veh/h	136	73	180	215	124	88	379	1208	211	68	415	363
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.21	0.40	0.40	0.04	0.23	0.00
Sat Flow, veh/h	1161	620	1538	1757	1012	718	1792	3021	528	1757	1827	1599
Grp Volume(v), veh/h	112	0	51	56	0	135	309	396	396	34	185	0
Grp Sat Flow(s),veh/h/ln	1781	0	1538	1757	0	1730	1792	1775	1775	1757	1827	1599
Q Serve(g_s), s	2.6	0.0	1.3	1.3	0.0	3.3	7.3	7.6	7.7	0.8	3.9	0.0
Cycle Q Clear(g_c), s	2.6	0.0	1.3	1.3	0.0	3.3	7.3	7.6	7.7	0.8	3.9	0.0
Prop In Lane	0.65		1.00	1.00		0.41	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	209	0	180	215	0	212	379	709	710	68	415	363
V/C Ratio(X)	0.54	0.00	0.28	0.26	0.00	0.64	0.82	0.56	0.56	0.50	0.45	0.00
Avail Cap(c_a), veh/h	1023	0	884	728	0	717	787	1412	1412	257	918	804
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00
Uniform Delay (d), s/veh	18.5	0.0	17.9	17.7	0.0	18.5	16.7	10.3	10.3	20.9	14.8	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.3	0.2	0.0	1.2	1.7	0.4	0.4	2.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.6	0.6	0.0	1.6	3.8	3.8	3.8	0.4	2.0	0.0
LnGrp Delay(d),s/veh	19.3	0.0	18.2	17.9	0.0	19.7	18.3	10.7	10.7	23.0	15.2	0.0
LnGrp LOS	B		B	B		B	B	B	B	C	B	
Approach Vol, veh/h		163			191			1101			219	
Approach Delay, s/veh		18.9			19.2			12.8			16.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	21.4		8.7	12.4	13.8		9.5
Change Period (Y+Rc), s	3.0	3.7		3.5	3.0	3.7		4.1
Max Green Setting (Gmax), s	6.5	35.3		25.5	19.5	22.3		18.4
Max Q Clear Time (g_c+I1), s	2.8	9.7		4.6	9.3	5.9		5.3
Green Ext Time (p_c), s	0.0	4.8		0.4	0.3	4.2		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	232.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	295	360	620	220	70	190
Future Vol, veh/h	295	360	620	220	70	190
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	91	91	91	91	91	91
Heavy Vehicles, %	3	1	2	2	4	5
Mvmt Flow	324	396	681	242	77	209

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1044	681	0	0	681	0
Stage 1	681	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Critical Hdwy	6.43	6.21	-	-	4.14	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.309	-	-	2.236	-
Pot Cap-1 Maneuver	~ 253	452	-	-	902	-
Stage 1	501	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 228	452	-	-	902	-
Mov Cap-2 Maneuver	~ 228	-	-	-	-	-
Stage 1	501	-	-	-	-	-
Stage 2	634	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 621	0	2.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	313	902	-
HCM Lane V/C Ratio	-	-	2.3	0.085	-
HCM Control Delay (s)	-	-	$ 621	9.4	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	55.7	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	15.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	387	209	70	103	74	260
Future Vol, veh/h	387	209	70	103	74	260
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	86	86	86	86	86	86
Heavy Vehicles, %	4	4	2	7	5	3
Mvmt Flow	450	243	81	120	86	302

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	693	0	855	572
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	283	-
Critical Hdwy	-	-	4.12	-	6.45	6.23
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.327
Pot Cap-1 Maneuver	-	-	902	-	325	518
Stage 1	-	-	-	-	559	-
Stage 2	-	-	-	-	758	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	902	-	294	518
Mov Cap-2 Maneuver	-	-	-	-	294	-
Stage 1	-	-	-	-	559	-
Stage 2	-	-	-	-	685	-

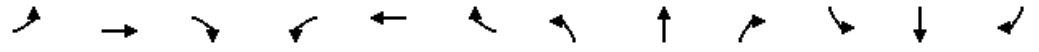
Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	48.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	443	-	-	902	-
HCM Lane V/C Ratio	0.877	-	-	0.09	-
HCM Control Delay (s)	48.4	-	-	9.4	0
HCM Lane LOS	E	-	-	A	A
HCM 95th %tile Q(veh)	9.1	-	-	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	220	266	533	170	35	179	753	546	40	769	40
Future Volume (veh/h)	80	220	266	533	170	35	179	753	546	40	769	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1881	1845	1881	1863	1900	1792	1827	1863	1900	1863	1845
Adj Flow Rate, veh/h	85	234	283	567	181	37	190	801	581	43	818	43
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	1	3	1	2	0	6	4	2	0	2	3
Cap, veh/h	109	441	368	558	620	531	164	1170	788	55	959	523
Arrive On Green	0.06	0.23	0.23	0.16	0.33	0.33	0.10	0.34	0.34	0.03	0.27	0.27
Sat Flow, veh/h	1757	1881	1568	3476	1863	1595	1707	3471	1583	1810	3539	1568
Grp Volume(v), veh/h	85	234	283	567	181	37	190	801	581	43	818	43
Grp Sat Flow(s),veh/h/ln	1757	1881	1568	1738	1863	1595	1707	1736	1583	1810	1770	1568
Q Serve(g_s), s	4.0	9.2	14.2	13.5	6.0	1.3	8.1	16.7	24.5	2.0	18.4	1.6
Cycle Q Clear(g_c), s	4.0	9.2	14.2	13.5	6.0	1.3	8.1	16.7	24.5	2.0	18.4	1.6
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	109	441	368	558	620	531	164	1170	788	55	959	523
V/C Ratio(X)	0.78	0.53	0.77	1.02	0.29	0.07	1.16	0.68	0.74	0.79	0.85	0.08
Avail Cap(c_a), veh/h	209	536	447	558	620	531	164	1170	788	107	1026	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)	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	38.9	28.2	30.1	35.3	20.7	19.2	38.0	24.0	16.8	40.5	29.1	19.2
Incr Delay (d2), s/veh	11.2	2.1	9.1	42.5	0.6	0.1	118.5	2.2	4.4	21.7	7.6	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	2.3	5.0	7.0	9.7	3.2	0.6	9.2	8.4	11.5	1.3	10.0	0.7
LnGrp Delay(d),s/veh	50.1	30.3	39.2	77.8	21.3	19.3	156.6	26.2	21.2	62.2	36.7	19.4
LnGrp LOS	D	C	D	F	C	B	F	C	C	E	D	B
Approach Vol, veh/h		602			785			1572			904	
Approach Delay, s/veh		37.2			62.0			40.1			37.1	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	33.9	18.0	25.3	12.6	28.3	9.7	33.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	27.5	13.5	24.0	8.1	24.4	10.0	27.5
Max Q Clear Time (g_c+I1), s	4.0	26.5	15.5	16.2	10.1	20.4	6.0	8.0
Green Ext Time (p_c), s	0.0	1.0	0.0	3.6	0.0	2.4	0.1	6.8

Intersection Summary	
HCM 2010 Ctrl Delay	43.4
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	270	115	0	86	0	1370	280	250	1209	110
Future Volume (vph)	0	0	270	115	0	86	0	1370	280	250	1209	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	0.99	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1597	1805		1455		5036	1599	1752	5030	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1597	1805		1455		5036	1599	1752	5030	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	281	120	0	90	0	1427	292	260	1259	115
RTOR Reduction (vph)	0	0	168	0	0	66	0	0	156	0	16	0
Lane Group Flow (vph)	0	0	113	120	0	24	0	1427	136	260	1358	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			6.0	6.5		17.0		23.5	30.0	10.5	38.0	
Effective Green, g (s)			6.0	6.5		17.0		23.5	30.0	10.5	38.0	
Actuated g/C Ratio			0.09	0.10		0.26		0.36	0.47	0.16	0.59	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			148	181		383		1834	743	285	2963	
v/s Ratio Prot				c0.07				c0.28	0.02	c0.15	0.27	
v/s Ratio Perm			c0.07			0.02			0.07			
v/c Ratio			0.76	0.66		0.06		0.78	0.18	0.91	0.46	
Uniform Delay, d1			28.6	27.9		17.8		18.2	10.1	26.5	7.5	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			20.7	8.8		0.1		2.3	0.1	30.9	0.2	
Delay (s)			49.2	36.7		17.9		20.5	10.2	57.4	7.6	
Level of Service			D	D		B		C	B	E	A	
Approach Delay (s)		49.2			28.7			18.7			15.5	
Approach LOS		D			C			B			B	

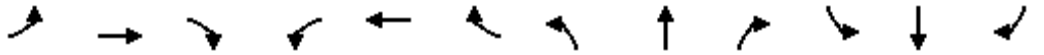
Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	64.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	298	20	210	140	30	65	210	1514	85	100	1508	207
Future Volume (veh/h)	298	20	210	140	30	65	210	1514	85	100	1508	207
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1863	1881	1845	1863	1881
Adj Flow Rate, veh/h	310	21	219	146	31	68	219	1577	89	104	1571	216
Adj No. of Lanes	1	1	2	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	1	3	2	1
Cap, veh/h	345	301	459	179	120	110	256	1771	799	132	2177	675
Arrive On Green	0.20	0.16	0.16	0.10	0.07	0.07	0.15	0.50	0.50	0.07	0.43	0.43
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	3539	1597	1757	5085	1577
Grp Volume(v), veh/h	310	21	219	146	31	68	219	1577	89	104	1571	216
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1770	1597	1757	1695	1577
Q Serve(g_s), s	18.7	1.0	7.7	8.8	1.8	4.4	13.2	43.2	3.2	6.3	27.5	9.8
Cycle Q Clear(g_c), s	18.7	1.0	7.7	8.8	1.8	4.4	13.2	43.2	3.2	6.3	27.5	9.8
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	345	301	459	179	120	110	256	1771	799	132	2177	675
V/C Ratio(X)	0.90	0.07	0.48	0.82	0.26	0.62	0.86	0.89	0.11	0.79	0.72	0.32
Avail Cap(c_a), veh/h	485	510	777	490	491	450	728	1771	799	327	2364	733
HCM Platoon Ratio	1.00	1.00	1.00	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	42.0	38.0	40.7	47.3	47.5	48.7	44.8	24.2	14.2	48.9	25.5	20.4
Incr Delay (d2), s/veh	15.0	0.1	0.8	8.7	1.1	5.5	8.0	6.5	0.1	10.1	1.4	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	10.4	0.5	3.0	4.7	0.9	2.1	6.9	22.6	1.4	3.4	13.1	4.3
LnGrp Delay(d),s/veh	57.0	38.0	41.5	56.0	48.6	54.2	52.8	30.7	14.4	59.0	26.8	21.0
LnGrp LOS	E	D	D	E	D	D	D	C	B	E	C	C
Approach Vol, veh/h		550			245			1885			1891	
Approach Delay, s/veh		50.1			54.6			32.5			27.9	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	58.8	15.0	21.7	19.8	51.0	25.3	11.3
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	50.0	30.0	30.0	45.0	50.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	8.3	45.2	10.8	9.7	15.2	29.5	20.7	6.4
Green Ext Time (p_c), s	0.2	4.8	0.3	1.3	0.6	16.5	0.7	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	33.9
HCM 2010 LOS	C

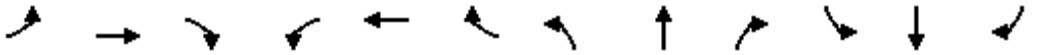


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	290	1090	150	397	400	1457	240	0	1808	25
Future Volume (veh/h)	80	0	290	1090	150	397	400	1457	240	0	1808	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1881	1863	1830	1776	1900	1863	1845	0	1810	1900
Adj Flow Rate, veh/h	83	0	302	1135	350	285	417	1518	250	0	1883	26
Adj No. of Lanes	1	0	1	2	1	1	1	3	1	0	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	1	2	1	7	0	2	3	0	5	0
Cap, veh/h	75	0	0	1187	465	384	380	2950	910	0	1650	539
Arrive On Green	0.04	0.00	0.00	0.33	0.25	0.25	0.42	1.00	1.00	0.00	0.33	0.33
Sat Flow, veh/h	1810	83		3548	1830	1509	1810	5085	1568	0	5103	1615
Grp Volume(v), veh/h	83	197.7		1135	350	285	417	1518	250	0	1883	26
Grp Sat Flow(s),veh/h/ln	1810	F		1774	1830	1509	1810	1695	1568	0	1647	1615
Q Serve(g_s), s	5.4			40.7	22.9	22.6	27.3	0.0	0.0	0.0	43.4	1.4
Cycle Q Clear(g_c), s	5.4			40.7	22.9	22.6	27.3	0.0	0.0	0.0	43.4	1.4
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	75			1187	465	384	380	2950	910	0	1650	539
V/C Ratio(X)	1.10			0.96	0.75	0.74	1.10	0.51	0.27	0.00	1.14	0.05
Avail Cap(c_a), veh/h	75			1348	549	453	380	2950	910	0	1650	539
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	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	0.57	0.57
Uniform Delay (d), s/veh	62.3			42.3	44.7	44.5	37.7	0.0	0.0	0.0	43.3	29.3
Incr Delay (d2), s/veh	135.0			13.9	3.8	4.1	75.0	0.6	0.7	0.0	68.1	0.1
Initial Q Delay(d3),s/veh	0.3			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			22.1	12.1	9.9	21.4	0.2	0.2	0.0	30.1	0.6
LnGrp Delay(d),s/veh	197.7			56.2	48.5	48.7	112.7	0.6	0.7	0.0	111.4	29.4
LnGrp LOS	F			E	D	D	F	A	A		F	C
Approach Vol, veh/h					1770			2185			1909	
Approach Delay, s/veh					53.5			22.0			110.3	
Approach LOS					D			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		81.6	48.4		32.0	49.6	10.0	38.4
Change Period (Y+Rc), s		6.2	4.9		* 4.7	6.2	4.6	5.3
Max Green Setting (Gmax), s		69.5	49.4		* 27	37.5	5.4	39.0
Max Q Clear Time (g_c+I1), s		2.0	42.7		29.3	45.4	7.4	24.9
Green Ext Time (p_c), s		23.0	0.8		0.0	0.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	62.2
HCM 2010 LOS	E

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	679	285	85	125	0	345	0	1409	100	435	1051	442
Future Volume (veh/h)	679	285	85	125	0	345	0	1409	100	435	1051	442
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1827	1900	0	1900	0	1776	1900	1881	1845	1827
Adj Flow Rate, veh/h	700	294	88	129	0	356	0	1453	103	448	1084	0
Adj No. of Lanes	2	2	1	1	0	1	0	4	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	4	0	0	0	0	7	0	1	3	4
Cap, veh/h	767	363	159	154	0	0	0	1566	414	1355	2433	1078
Arrive On Green	0.22	0.10	0.10	0.08	0.00	0.00	0.00	0.26	0.26	0.78	1.00	0.00
Sat Flow, veh/h	3442	3539	1553	1810	129		0	6357	1615	3476	3505	1553
Grp Volume(v), veh/h	700	294	88	129	79.2		0	1453	103	448	1084	0
Grp Sat Flow(s),veh/h/ln	1721	1770	1553	1810	E		0	1527	1615	1738	1752	1553
Q Serve(g_s), s	25.8	10.6	7.0	9.1			0.0	30.2	5.1	5.0	0.0	0.0
Cycle Q Clear(g_c), s	25.8	10.6	7.0	9.1			0.0	30.2	5.1	5.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	767	363	159	154			0	1566	414	1355	2433	1078
V/C Ratio(X)	0.91	0.81	0.55	0.84			0.00	0.93	0.25	0.33	0.45	0.00
Avail Cap(c_a), veh/h	810	1143	502	187			0	1607	425	1355	2433	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00			0.00	0.93	0.93	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.3	57.1	55.5	58.6			0.0	47.2	23.0	9.3	0.0	0.0
Incr Delay (d2), s/veh	14.0	1.7	1.1	20.6			0.0	10.4	1.3	0.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	5.3	3.1	5.5			0.0	13.8	2.4	2.4	0.2	0.0
LnGrp Delay(d),s/veh	63.3	58.8	56.6	79.2			0.0	57.6	24.3	9.3	0.6	0.0
LnGrp LOS	E	E	E	E				E	C	A	A	
Approach Vol, veh/h		1082						1556			1532	
Approach Delay, s/veh		61.5						55.4			3.1	
Approach LOS		E						E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6	7	
Phs Duration (G+Y+Rc), s	56.9	39.5	15.6	17.9		96.4	33.6	
Change Period (Y+Rc), s	6.2	* 6.2	4.6	4.6		6.2	4.6	
Max Green Setting (Gmax), s	20.4	* 34	13.4	42.0		59.2	30.6	
Max Q Clear Time (g_c+I1), s	7.0	32.2	11.1	12.6		2.0	27.8	
Green Ext Time (p_c), s	3.2	1.2	0.0	0.8		3.6	0.7	

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	12	58	10	14	100	46	1239	75	0	1236	201
Future Volume (veh/h)	170	12	58	10	14	100	46	1239	75	0	1236	201
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1568	1776	1863	1865	1900	0	1863	1863
Adj Flow Rate, veh/h	177	12	60	10	15	104	48	1291	78	0	1288	209
Adj No. of Lanes	1	1	0	0	1	1	1	4	0	0	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	7	2	2	2	0	2	2
Cap, veh/h	221	34	169	55	82	134	69	3967	239	0	1938	867
Arrive On Green	0.12	0.12	0.12	0.09	0.09	0.09	0.04	0.64	0.64	0.00	0.55	0.55
Sat Flow, veh/h	1774	271	1353	615	922	1509	1774	6234	376	0	3632	1583
Grp Volume(v), veh/h	177	0	72	25	0	104	48	996	373	0	1288	209
Grp Sat Flow(s),veh/h/ln	1774	0	1624	1537	0	1509	1774	1604	1798	0	1770	1583
Q Serve(g_s), s	8.7	0.0	3.7	1.4	0.0	6.1	2.4	8.5	8.6	0.0	23.3	6.2
Cycle Q Clear(g_c), s	8.7	0.0	3.7	1.4	0.0	6.1	2.4	8.5	8.6	0.0	23.3	6.2
Prop In Lane	1.00		0.83	0.40		1.00	1.00		0.21	0.00		1.00
Lane Grp Cap(c), veh/h	221	0	203	137	0	134	69	3062	1144	0	1938	867
V/C Ratio(X)	0.80	0.00	0.36	0.18	0.00	0.78	0.70	0.33	0.33	0.00	0.66	0.24
Avail Cap(c_a), veh/h	355	0	325	307	0	302	99	3062	1144	0	1938	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	0.00	1.00	1.00	0.00	1.00	0.85	0.85	0.85	0.00	0.87	0.87
Uniform Delay (d), s/veh	38.3	0.0	36.1	38.0	0.0	40.1	42.7	7.5	7.5	0.0	14.5	10.6
Incr Delay (d2), s/veh	6.6	0.0	1.1	0.6	0.0	9.2	10.3	0.2	0.6	0.0	1.6	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	4.7	0.0	1.7	0.6	0.0	2.9	1.4	3.8	4.5	0.0	11.7	2.8
LnGrp Delay(d),s/veh	44.8	0.0	37.1	38.6	0.0	49.3	53.0	7.7	8.2	0.0	16.1	11.2
LnGrp LOS	D		D	D		D	D	A	A		B	B
Approach Vol, veh/h		249			129			1417			1497	
Approach Delay, s/veh		42.6			47.2			9.4			15.4	
Approach LOS		D			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		61.8		15.7	8.0	53.8		12.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		40.5		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s		10.6		10.7	4.4	25.3		8.1
Green Ext Time (p_c), s		24.5		0.5	0.0	5.4		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	105	500	75	205	5	515	1110	175	115	901	255
Future Volume (veh/h)	245	105	500	75	205	5	515	1110	175	115	901	255
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1827	1900	1900	1900	1863	1881	1727	1863	1900
Adj Flow Rate, veh/h	253	108	515	77	211	5	531	1144	180	119	929	263
Adj No. of Lanes	1	1	1	2	1	1	1	3	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	4	0	0	0	2	1	10	2	0
Cap, veh/h	244	612	520	117	422	359	498	2157	677	140	828	377
Arrive On Green	0.13	0.32	0.32	0.03	0.22	0.22	0.28	0.42	0.42	0.09	0.23	0.23
Sat Flow, veh/h	1810	1900	1615	3375	1900	1615	1810	5085	1597	1645	3539	1612
Grp Volume(v), veh/h	253	108	515	77	211	5	531	1144	180	119	929	263
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1688	1900	1615	1810	1695	1597	1645	1770	1612
Q Serve(g_s), s	19.9	6.0	46.9	3.3	14.4	0.4	40.7	24.7	10.8	10.5	34.6	22.1
Cycle Q Clear(g_c), s	19.9	6.0	46.9	3.3	14.4	0.4	40.7	24.7	10.8	10.5	34.6	22.1
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	244	612	520	117	422	359	498	2157	677	140	828	377
V/C Ratio(X)	1.04	0.18	0.99	0.66	0.50	0.01	1.07	0.53	0.27	0.85	1.12	0.70
Avail Cap(c_a), veh/h	244	612	520	167	450	382	498	2157	677	218	828	377
HCM Platoon Ratio	1.00	1.00	1.00	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	64.0	36.0	49.9	70.5	50.3	44.9	53.6	31.6	27.6	66.7	56.6	51.8
Incr Delay (d2), s/veh	68.1	0.2	36.9	6.1	1.1	0.0	59.0	0.3	0.3	16.7	70.3	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	14.5	3.2	26.2	1.7	7.7	0.2	28.4	11.6	4.8	5.4	24.9	10.5
LnGrp Delay(d),s/veh	132.1	36.2	86.8	76.6	51.4	44.9	112.6	31.9	27.9	83.3	126.9	57.6
LnGrp LOS	F	D	F	E	D	D	F	C	C	F	F	E
Approach Vol, veh/h		876			293			1855			1311	
Approach Delay, s/veh		93.6			57.9			54.6			109.1	
Approach LOS		F			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	68.5	9.6	52.6	45.2	40.4	24.4	37.8
Change Period (Y+Rc), s	4.5	5.8	4.5	5.0	4.5	5.8	4.5	5.0
Max Green Setting (Gmax), s	19.6	55.7	7.3	47.6	40.7	34.6	19.9	35.0
Max Q Clear Time (g_c+I1), s	12.5	26.7	5.3	48.9	42.7	36.6	21.9	16.4
Green Ext Time (p_c), s	0.1	23.0	0.0	0.0	0.0	0.0	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	79.2
HCM 2010 LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	90	50	35	1629	1461	70
Future Volume (veh/h)	90	50	35	1629	1461	70
Number	5	12	3	8	4	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1900	1900	1863	1847	1900
Adj Flow Rate, veh/h	98	54	38	1771	1588	76
Adj No. of Lanes	2	1	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	2	3	3
Cap, veh/h	327	155	76	2380	2603	125
Arrive On Green	0.10	0.10	0.04	0.67	0.53	0.53
Sat Flow, veh/h	3408	1615	1810	3632	5097	236
Grp Volume(v), veh/h	98	54	38	1771	1082	582
Grp Sat Flow(s),veh/h/ln	1704	1615	1810	1770	1681	1805
Q Serve(g_s), s	1.2	1.4	0.9	14.4	9.9	9.9
Cycle Q Clear(g_c), s	1.2	1.4	0.9	14.4	9.9	9.9
Prop In Lane	1.00	1.00	1.00			0.13
Lane Grp Cap(c), veh/h	327	155	76	2380	1775	953
V/C Ratio(X)	0.30	0.35	0.50	0.74	0.61	0.61
Avail Cap(c_a), veh/h	1433	679	210	2517	1775	953
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	18.5	18.6	20.6	4.7	7.2	7.2
Incr Delay (d2), s/veh	0.5	1.3	4.9	1.2	0.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.7	0.6	7.3	4.7	5.2
LnGrp Delay(d),s/veh	19.0	19.9	25.6	6.0	7.9	8.5
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	152			1809	1664	
Approach Delay, s/veh	19.4			6.4	8.1	
Approach LOS	B			A	A	

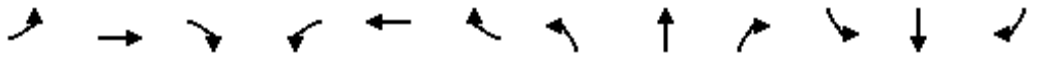
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		8.7	6.4	28.9				35.3
Change Period (Y+Rc), s		4.5	4.5	5.7				5.7
Max Green Setting (Gmax), s		18.5	5.1	21.7				31.3
Max Q Clear Time (g_c+I1), s		3.4	2.9	11.9				16.4
Green Ext Time (p_c), s		0.4	0.0	9.7				13.1

Intersection Summary	
HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	285	320	80	170	188	265	1290	75	237	1103	136
Future Volume (veh/h)	187	285	320	80	170	188	265	1290	75	237	1103	136
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1881	1863	1846	1900	1827	1858	1900	1863	1863	1827
Adj Flow Rate, veh/h	195	297	333	83	177	196	276	1344	78	247	1149	142
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	1	2	5	5	4	2	2	2	2	4
Cap, veh/h	226	880	393	95	306	266	351	1334	77	238	2156	646
Arrive On Green	0.13	0.25	0.25	0.05	0.17	0.17	0.10	0.39	0.39	0.13	0.42	0.42
Sat Flow, veh/h	1774	3539	1580	1774	1754	1522	3375	3390	196	1774	5085	1524
Grp Volume(v), veh/h	195	297	333	83	177	196	276	698	724	247	1149	142
Grp Sat Flow(s),veh/h/ln	1774	1770	1580	1774	1754	1522	1688	1765	1822	1774	1695	1524
Q Serve(g_s), s	12.0	7.7	22.4	5.2	10.4	13.6	8.9	44.0	44.0	15.0	18.8	6.6
Cycle Q Clear(g_c), s	12.0	7.7	22.4	5.2	10.4	13.6	8.9	44.0	44.0	15.0	18.8	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	226	880	393	95	306	266	351	695	717	238	2156	646
V/C Ratio(X)	0.86	0.34	0.85	0.87	0.58	0.74	0.79	1.01	1.01	1.04	0.53	0.22
Avail Cap(c_a), veh/h	317	982	438	95	306	266	453	695	717	238	2156	646
HCM Platoon Ratio	1.00	1.00	1.00	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	47.8	34.5	40.0	52.5	42.4	43.7	48.9	33.9	33.9	48.4	24.0	20.5
Incr Delay (d2), s/veh	15.6	0.8	18.2	53.3	3.3	11.1	10.0	35.4	35.9	68.5	0.3	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	6.9	3.9	11.8	3.9	5.3	6.5	4.7	28.1	29.1	11.8	8.8	2.8
LnGrp Delay(d),s/veh	63.4	35.3	58.2	105.8	45.7	54.8	58.8	69.3	69.8	116.9	24.3	20.7
LnGrp LOS	E	D	E	F	D	D	E	F	F	F	C	C
Approach Vol, veh/h		825			456			1698			1538	
Approach Delay, s/veh		51.2			60.5			67.8			38.8	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	49.0	10.0	33.8	15.6	52.4	18.3	25.5
Change Period (Y+Rc), s	4.0	5.0	4.0	6.0	4.0	5.0	4.0	6.0
Max Green Setting (Gmax), s	15.0	44.0	6.0	31.0	15.0	44.0	20.0	17.0
Max Q Clear Time (g_c+I1), s	17.0	46.0	7.2	24.4	10.9	20.8	14.0	15.6
Green Ext Time (p_c), s	0.0	0.0	0.0	3.0	0.7	22.5	0.3	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.2
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	105	145	35	40	25	140	636	75	25	549	90
Future Volume (veh/h)	70	105	145	35	40	25	140	636	75	25	549	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1644	1810	1900	1800	1900	1792	1804	1900	1597	1863	1863
Adj Flow Rate, veh/h	77	115	159	38	44	27	154	699	82	27	603	99
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	26	26	5	0	0	0	6	5	5	19	2	2
Cap, veh/h	65	63	514	68	54	541	189	722	85	43	695	578
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.11	0.46	0.46	0.03	0.37	0.37
Sat Flow, veh/h	0	189	1536	0	161	1614	1707	1585	186	1521	1863	1548
Grp Volume(v), veh/h	192	0	159	82	0	27	154	0	781	27	603	99
Grp Sat Flow(s),veh/h/ln	189	0	1536	161	0	1614	1707	0	1771	1521	1863	1548
Q Serve(g_s), s	0.0	0.0	5.9	0.0	0.0	0.9	6.8	0.0	33.2	1.4	23.2	3.3
Cycle Q Clear(g_c), s	25.9	0.0	5.9	25.9	0.0	0.9	6.8	0.0	33.2	1.4	23.2	3.3
Prop In Lane	0.40		1.00	0.46		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	129	0	514	122	0	541	189	0	807	43	695	578
V/C Ratio(X)	1.49	0.00	0.31	0.67	0.00	0.05	0.82	0.00	0.97	0.62	0.87	0.17
Avail Cap(c_a), veh/h	129	0	514	122	0	541	223	0	807	108	723	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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	0.0	19.1	22.4	0.0	17.4	33.6	0.0	20.5	37.1	22.4	16.2
Incr Delay (d2), s/veh	257.9	0.0	0.4	14.0	0.0	0.0	18.5	0.0	24.4	15.9	12.2	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	11.9	0.0	2.5	2.2	0.0	0.4	4.2	0.0	21.5	0.8	14.2	1.5
LnGrp Delay(d),s/veh	284.5	0.0	19.5	36.4	0.0	17.4	52.1	0.0	44.9	53.1	34.6	16.6
LnGrp LOS	F		B	D		B	D		D	D	C	B
Approach Vol, veh/h		351			109			935			729	
Approach Delay, s/veh		164.5			31.7			46.1			32.8	
Approach LOS		F			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	40.6		30.4	12.7	34.3		30.4
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	5.5	34.6		25.9	10.1	30.0		25.9
Max Q Clear Time (g_c+I1), s	3.4	35.2		27.9	8.8	25.2		27.9
Green Ext Time (p_c), s	0.0	0.0		0.0	0.1	3.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	60.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	145	45	471	80	145	15	596	532	155	540	45
Future Volume (veh/h)	76	145	45	471	80	145	15	596	532	155	540	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1855	1881	1900	1845	1881	1827	1859	1900
Adj Flow Rate, veh/h	81	154	48	562	0	154	16	634	566	165	574	48
Adj No. of Lanes	1	2	0	2	0	1	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	6	1	0	3	1	4	2	2
Cap, veh/h	200	302	91	753	0	333	27	1212	552	175	1421	119
Arrive On Green	0.11	0.11	0.11	0.21	0.00	0.21	0.01	0.35	0.35	0.10	0.43	0.43
Sat Flow, veh/h	1810	2727	820	3583	0	1588	1810	3505	1596	1740	3293	275
Grp Volume(v), veh/h	81	100	102	562	0	154	16	634	566	165	307	315
Grp Sat Flow(s),veh/h/ln	1810	1805	1742	1792	0	1588	1810	1752	1596	1740	1766	1802
Q Serve(g_s), s	3.3	4.2	4.4	11.7	0.0	6.7	0.7	11.5	27.5	7.5	9.5	9.6
Cycle Q Clear(g_c), s	3.3	4.2	4.4	11.7	0.0	6.7	0.7	11.5	27.5	7.5	9.5	9.6
Prop In Lane	1.00		0.47	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	200	200	193	753	0	333	27	1212	552	175	762	778
V/C Ratio(X)	0.40	0.50	0.53	0.75	0.00	0.46	0.59	0.52	1.03	0.94	0.40	0.40
Avail Cap(c_a), veh/h	637	636	613	1262	0	559	91	1212	552	175	762	778
HCM Platoon Ratio	1.00	1.00	1.00	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	32.9	33.3	33.4	29.4	0.0	27.5	38.9	20.8	26.0	35.5	15.6	15.6
Incr Delay (d2), s/veh	1.3	1.9	2.2	1.5	0.0	1.0	18.8	0.6	44.8	51.3	0.5	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	1.7	2.2	2.2	5.9	0.0	3.0	0.5	5.6	18.8	6.1	4.7	4.8
LnGrp Delay(d),s/veh	34.2	35.2	35.6	30.9	0.0	28.5	57.7	21.3	70.8	86.9	16.0	16.0
LnGrp LOS	C	D	D	C		C	E	C	F	F	B	B
Approach Vol, veh/h		283			716			1216			787	
Approach Delay, s/veh		35.1			30.4			44.8			30.9	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	32.5		13.8	5.2	39.3		21.2
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		4.5
Max Green Setting (Gmax), s	8.0	27.5		28.0	4.0	31.5		28.0
Max Q Clear Time (g_c+I1), s	9.5	29.5		6.4	2.7	11.6		13.7
Green Ext Time (p_c), s	0.0	0.0		1.3	0.0	14.0		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	36.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	333	730	25	25	505	515	50	20	25	400	20	222
Future Volume (veh/h)	333	730	25	25	505	515	50	20	25	400	20	222
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1882	1900	1810	1881	1827	1900	1848	1900	1881	1876	1863
Adj Flow Rate, veh/h	354	777	27	27	537	0	53	21	27	441	0	236
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	5	1	4	0	0	0	1	4	2
Cap, veh/h	315	1551	54	39	1023	445	154	62	80	773	0	340
Arrive On Green	0.18	0.44	0.44	0.02	0.29	0.00	0.09	0.09	0.09	0.22	0.00	0.22
Sat Flow, veh/h	1792	3525	122	1723	3574	1553	1810	729	938	3583	0	1575
Grp Volume(v), veh/h	354	394	410	27	537	0	53	0	48	441	0	236
Grp Sat Flow(s),veh/h/ln	1792	1788	1860	1723	1787	1553	1810	0	1667	1792	0	1575
Q Serve(g_s), s	14.5	13.0	13.0	1.3	10.4	0.0	2.3	0.0	2.2	9.1	0.0	11.4
Cycle Q Clear(g_c), s	14.5	13.0	13.0	1.3	10.4	0.0	2.3	0.0	2.2	9.1	0.0	11.4
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	315	787	818	39	1023	445	154	0	142	773	0	340
V/C Ratio(X)	1.12	0.50	0.50	0.70	0.52	0.00	0.34	0.00	0.34	0.57	0.00	0.69
Avail Cap(c_a), veh/h	315	787	818	123	1172	509	154	0	142	1392	0	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)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.9	16.6	16.6	40.0	24.7	0.0	35.5	0.0	35.5	28.9	0.0	29.8
Incr Delay (d2), s/veh	87.8	1.8	1.7	20.4	1.5	0.0	6.0	0.0	6.4	0.9	0.0	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	14.8	6.7	7.0	0.8	5.4	0.0	1.4	0.0	1.3	4.6	0.0	5.3
LnGrp Delay(d),s/veh	121.7	18.4	18.3	60.4	26.2	0.0	41.5	0.0	41.9	29.8	0.0	33.4
LnGrp LOS	F	B	B	E	C		D		D	C		C
Approach Vol, veh/h		1158			564			101			677	
Approach Delay, s/veh		49.9			27.8			41.7			31.1	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.0	6.3	41.2		22.8	19.0	28.6
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		7.0	5.9	35.6		32.0	14.5	27.0
Max Q Clear Time (g_c+I1), s		4.3	3.3	15.0		13.4	16.5	12.4
Green Ext Time (p_c), s		0.1	0.0	16.1		3.7	0.0	11.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	725	470	445	895	0	0	0	0	45	5	190
Future Volume (veh/h)	0	725	470	445	895	0	0	0	0	45	5	190
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1845	1863	0				1827	1864	1900
Adj Flow Rate, veh/h	0	763	495	468	942	0				47	5	200
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	3	2	0				4	0	4
Cap, veh/h	0	1403	626	501	2632	0				268	6	239
Arrive On Green	0.00	0.40	0.40	0.29	0.74	0.00				0.15	0.15	0.15
Sat Flow, veh/h	0	3632	1580	1757	3632	0				1740	39	1551
Grp Volume(v), veh/h	0	763	495	468	942	0				47	0	205
Grp Sat Flow(s),veh/h/ln	0	1770	1580	1757	1770	0				1740	0	1590
Q Serve(g_s), s	0.0	14.9	24.8	23.4	8.4	0.0				2.1	0.0	11.3
Cycle Q Clear(g_c), s	0.0	14.9	24.8	23.4	8.4	0.0				2.1	0.0	11.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	1403	626	501	2632	0				268	0	245
V/C Ratio(X)	0.00	0.54	0.79	0.93	0.36	0.00				0.18	0.00	0.84
Avail Cap(c_a), veh/h	0	1403	626	554	2632	0				445	0	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.54	0.54	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.9	23.9	31.3	4.0	0.0				33.1	0.0	37.0
Incr Delay (d2), s/veh	0.0	1.3	8.4	13.5	0.2	0.0				0.1	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.6	12.2	13.2	4.1	0.0				1.0	0.0	5.2
LnGrp Delay(d),s/veh	0.0	22.2	32.3	44.9	4.2	0.0				33.2	0.0	40.2
LnGrp LOS		C	C	D	A					C		D
Approach Vol, veh/h		1258			1410						252	
Approach Delay, s/veh		26.2			17.7						38.9	
Approach LOS		C			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	31.3	40.8		18.0		72.0		
Change Period (Y+Rc), s	5.6	5.1		4.1		5.1		
Max Green Setting (Gmax), s	28.4	23.8		23.0		57.8		
Max Q Clear Time (g_c+I1), s	25.4	26.8		13.3		10.4		
Green Ext Time (p_c), s	0.3	0.0		0.6		13.6		

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	565	0	0	855	100	480	5	410	0	0	0
Future Volume (veh/h)	205	565	0	0	855	100	480	5	410	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1881	1881	0	0	1845	1900	1845	1828	1827			
Adj Flow Rate, veh/h	228	628	0	0	950	111	677	0	306			
Adj No. of Lanes	1	2	0	0	2	1	2	0	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	1	1	0	0	3	0	3	33	4			
Cap, veh/h	278	2121	0	0	1313	605	873	0	386			
Arrive On Green	0.16	0.59	0.00	0.00	0.37	0.37	0.25	0.00	0.25			
Sat Flow, veh/h	1792	3668	0	0	3597	1615	3514	0	1553			
Grp Volume(v), veh/h	228	628	0	0	950	111	677	0	306			
Grp Sat Flow(s),veh/h/ln	1792	1787	0	0	1752	1615	1757	0	1553			
Q Serve(g_s), s	6.8	4.8	0.0	0.0	12.8	2.5	9.9	0.0	10.1			
Cycle Q Clear(g_c), s	6.8	4.8	0.0	0.0	12.8	2.5	9.9	0.0	10.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	278	2121	0	0	1313	605	873	0	386			
V/C Ratio(X)	0.82	0.30	0.00	0.00	0.72	0.18	0.78	0.00	0.79			
Avail Cap(c_a), veh/h	309	2121	0	0	1313	605	952	0	421			
HCM Platoon Ratio	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	0.00	0.00	0.91	0.91	1.00	0.00	1.00			
Uniform Delay (d), s/veh	22.5	5.5	0.0	0.0	14.8	11.5	19.2	0.0	19.4			
Incr Delay (d2), s/veh	11.4	0.3	0.0	0.0	3.2	0.6	4.1	0.0	10.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.2	2.4	0.0	0.0	6.6	1.2	5.3	0.0	5.4			
LnGrp Delay(d),s/veh	33.9	5.8	0.0	0.0	17.9	12.2	23.4	0.0	29.4			
LnGrp LOS	C	A			B	B	C		C			
Approach Vol, veh/h		856			1061			983				
Approach Delay, s/veh		13.3			17.3			25.3				
Approach LOS		B			B			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		37.2			12.0	25.2		17.8
Change Period (Y+Rc), s		4.6			3.5	4.6		4.1
Max Green Setting (Gmax), s		31.4			9.5	18.4		14.9
Max Q Clear Time (g_c+I1), s		6.8			8.8	14.8		12.1
Green Ext Time (p_c), s		9.0			0.0	2.5		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	710	205	44	710	0	245	0	59	0	0	0
Future Volume (veh/h)	60	710	205	44	710	0	245	0	59	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1867	1900	1900	1845	0	1900	0	1900			
Adj Flow Rate, veh/h	65	772	223	48	772	0	266	0	64			
Adj No. of Lanes	1	3	0	1	3	0	1	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	3	0	0	0	0			
Cap, veh/h	136	1752	501	73	2080	0	361	0	322			
Arrive On Green	0.08	0.45	0.45	0.04	0.41	0.00	0.20	0.00	0.20			
Sat Flow, veh/h	1810	3915	1118	1810	5202	0	1810	0	1615			
Grp Volume(v), veh/h	65	669	326	48	772	0	266	0	64			
Grp Sat Flow(s),veh/h/ln	1810	1699	1635	1810	1679	0	1810	0	1615			
Q Serve(g_s), s	1.5	5.9	5.9	1.1	4.6	0.0	6.0	0.0	1.4			
Cycle Q Clear(g_c), s	1.5	5.9	5.9	1.1	4.6	0.0	6.0	0.0	1.4			
Prop In Lane	1.00		0.68	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	136	1521	732	73	2080	0	361	0	322			
V/C Ratio(X)	0.48	0.44	0.45	0.65	0.37	0.00	0.74	0.00	0.20			
Avail Cap(c_a), veh/h	251	1524	734	234	2213	0	900	0	803			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	19.2	8.2	8.2	20.4	8.8	0.0	16.2	0.0	14.4			
Incr Delay (d2), s/veh	2.6	0.6	1.2	9.5	0.3	0.0	2.9	0.0	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			
%ile BackOfQ(50%),veh/ln	0.8	2.8	2.9	0.8	2.1	0.0	3.2	0.0	0.7			
LnGrp Delay(d),s/veh	21.8	8.8	9.4	29.9	9.1	0.0	19.2	0.0	14.7			
LnGrp LOS	C	A	A	C	A		B		B			
Approach Vol, veh/h		1060			820			330				
Approach Delay, s/veh		9.8			10.3			18.3				
Approach LOS		A			B			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	5.8	24.4			7.3	22.9		13.1
Change Period (Y+Rc), s	4.0	5.0			4.0	5.0		4.5
Max Green Setting (Gmax), s	5.6	19.4			6.0	19.0		21.5
Max Q Clear Time (g_c+I1), s	3.1	7.9			3.5	6.6		8.0
Green Ext Time (p_c), s	0.0	10.4			0.0	11.3		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	11.2
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	10	1650	1594	0
Future Vol, veh/h	0	0	10	1650	1594	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	10	1701	1643	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	822	1643	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	0	276	193	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	276	193	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	193	-	-	-	-
HCM Lane V/C Ratio	0.053	-	-	-	-
HCM Control Delay (s)	24.7	-	0	-	-
HCM Lane LOS	C	-	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	255	90	210	185	70	40	483	405	145	317	120
Future Volume (veh/h)	140	255	90	210	185	70	40	483	405	145	317	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1872	1900	1863	1863	1900	1810	1863	1900	1863	1841	1900
Adj Flow Rate, veh/h	152	277	98	228	201	76	43	525	440	158	345	130
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	2	5	2	2	2	1	1
Cap, veh/h	186	279	99	254	324	123	63	449	376	355	1022	379
Arrive On Green	0.10	0.21	0.21	0.14	0.25	0.25	0.04	0.25	0.25	0.20	0.41	0.41
Sat Flow, veh/h	1810	1322	468	1774	1289	487	1723	1829	1533	1774	2500	927
Grp Volume(v), veh/h	152	0	375	228	0	277	43	508	457	158	240	235
Grp Sat Flow(s),veh/h/ln	1810	0	1790	1774	0	1777	1723	1770	1592	1774	1749	1678
Q Serve(g_s), s	7.4	0.0	18.8	11.4	0.0	12.4	2.2	22.1	22.1	7.0	8.4	8.7
Cycle Q Clear(g_c), s	7.4	0.0	18.8	11.4	0.0	12.4	2.2	22.1	22.1	7.0	8.4	8.7
Prop In Lane	1.00		0.26	1.00		0.27	1.00		0.96	1.00		0.55
Lane Grp Cap(c), veh/h	186	0	378	254	0	447	63	435	391	355	715	686
V/C Ratio(X)	0.82	0.00	0.99	0.90	0.00	0.62	0.68	1.17	1.17	0.45	0.34	0.34
Avail Cap(c_a), veh/h	227	0	378	254	0	447	126	435	391	355	715	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)	1.00	0.00	1.00	0.49	0.00	0.49	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	0.0	35.4	37.9	0.0	29.9	42.8	34.0	34.0	31.6	18.2	18.3
Incr Delay (d2), s/veh	17.1	0.0	44.2	18.1	0.0	1.3	12.2	98.2	100.2	4.0	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	4.6	0.0	13.9	6.9	0.0	6.2	1.3	22.6	20.5	3.8	4.3	4.2
LnGrp Delay(d),s/veh	56.7	0.0	79.6	56.0	0.0	31.2	55.0	132.2	134.2	35.6	19.5	19.6
LnGrp LOS	E		E	E		C	E	F	F	D	B	B
Approach Vol, veh/h		527			505			1008			633	
Approach Delay, s/veh		73.0			42.4			129.8			23.6	
Approach LOS		E			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	26.6	17.4	23.5	7.8	41.3	13.8	27.1
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	18.0	22.1	12.9	19.0	6.6	33.5	11.3	20.6
Max Q Clear Time (g_c+I1), s	9.0	24.1	13.4	20.8	4.2	10.7	9.4	14.4
Green Ext Time (p_c), s	0.3	0.0	0.0	0.0	0.0	10.5	0.1	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	76.9
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	689	80	32	554	10	95	5	33	25	5	85
Future Volume (veh/h)	30	689	80	32	554	10	95	5	33	25	5	85
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1867	1900	1900	1863	1900	1900	1790	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	725	84	34	583	11	100	5	35	26	48	60
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	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, %	0	2	2	0	2	2	0	0	0	0	0	0
Cap, veh/h	66	1789	206	69	2106	40	165	18	124	59	109	145
Arrive On Green	0.04	0.39	0.39	0.04	0.41	0.41	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1810	4636	533	1810	5141	97	1810	194	1357	656	1211	1615
Grp Volume(v), veh/h	32	530	279	34	384	210	100	0	40	74	0	60
Grp Sat Flow(s),veh/h/ln	1810	1699	1772	1810	1696	1846	1810	0	1551	1867	0	1615
Q Serve(g_s), s	0.8	5.2	5.2	0.8	3.4	3.4	2.4	0.0	1.1	1.7	0.0	1.6
Cycle Q Clear(g_c), s	0.8	5.2	5.2	0.8	3.4	3.4	2.4	0.0	1.1	1.7	0.0	1.6
Prop In Lane	1.00		0.30	1.00		0.05	1.00		0.88	0.35		1.00
Lane Grp Cap(c), veh/h	66	1311	684	69	1389	756	165	0	141	167	0	145
V/C Ratio(X)	0.48	0.40	0.41	0.49	0.28	0.28	0.61	0.00	0.28	0.44	0.00	0.41
Avail Cap(c_a), veh/h	199	1939	1012	199	1936	1054	1192	0	1021	287	0	248
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	21.5	10.2	10.2	21.5	9.0	9.0	19.9	0.0	19.3	19.7	0.0	19.6
Incr Delay (d2), s/veh	5.4	0.7	1.4	5.3	0.4	0.7	3.6	0.0	1.1	1.8	0.0	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	0.5	2.5	2.8	0.5	1.7	1.9	1.4	0.0	0.5	1.0	0.0	0.8
LnGrp Delay(d),s/veh	26.9	10.9	11.6	26.7	9.3	9.7	23.5	0.0	20.4	21.5	0.0	21.5
LnGrp LOS	C	B	B	C	A	A	C		C	C		C
Approach Vol, veh/h		841			628			140			134	
Approach Delay, s/veh		11.8			10.4			22.6			21.5	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.7	22.6		8.1	5.7	23.7		8.1
Change Period (Y+Rc), s	5.0	* 5		4.0	4.0	5.0		4.0
Max Green Setting (Gmax), s	5.0	* 26		30.0	5.0	26.0		7.0
Max Q Clear Time (g_c+I1), s	2.8	7.2		4.4	2.8	5.4		3.7
Green Ext Time (p_c), s	1.3	10.3		0.5	0.0	8.2		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	0	90	499	0	229	52	1329	528	221	1317	56
Future Volume (veh/h)	98	0	90	499	0	229	52	1329	528	221	1317	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	107	0	98	542	0	249	57	1445	574	240	1432	61
Adj No. of Lanes	1	1	0	2	1	0	1	3	1	1	3	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	137	0	166	617	0	327	80	1706	815	277	2234	95
Arrive On Green	0.08	0.00	0.10	0.18	0.00	0.21	0.04	0.34	0.34	0.16	0.45	0.45
Sat Flow, veh/h	1774	0	1583	3442	0	1583	1774	5085	1583	1774	5002	213
Grp Volume(v), veh/h	107	0	98	542	0	249	57	1445	574	240	971	522
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1721	0	1583	1774	1695	1583	1774	1695	1825
Q Serve(g_s), s	4.7	0.0	4.7	12.3	0.0	11.9	2.5	21.1	22.1	10.6	17.8	17.8
Cycle Q Clear(g_c), s	4.7	0.0	4.7	12.3	0.0	11.9	2.5	21.1	22.1	10.6	17.8	17.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	137	0	166	617	0	327	80	1706	815	277	1514	815
V/C Ratio(X)	0.78	0.00	0.59	0.88	0.00	0.76	0.72	0.85	0.70	0.87	0.64	0.64
Avail Cap(c_a), veh/h	266	0	355	627	0	407	115	1706	815	277	1514	815
HCM Platoon Ratio	1.00	1.00	1.00	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	36.3	0.0	34.3	32.0	0.0	29.9	37.8	24.7	14.8	33.0	17.2	17.2
Incr Delay (d2), s/veh	9.1	0.0	3.3	13.3	0.0	6.5	11.3	5.4	5.1	24.1	2.1	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	2.7	0.0	2.2	6.9	0.0	5.8	1.5	10.8	10.7	7.1	8.7	9.7
LnGrp Delay(d),s/veh	45.4	0.0	37.6	45.4	0.0	36.4	49.1	30.1	19.9	57.1	19.3	21.1
LnGrp LOS	D		D	D		D	D	C	B	E	B	C
Approach Vol, veh/h		205			791			2076			1733	
Approach Delay, s/veh		41.7			42.6			27.8			25.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	31.4	18.9	12.9	8.1	40.3	10.7	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	12.5	26.9	14.6	18.0	5.2	34.2	12.0	20.6
Max Q Clear Time (g_c+I1), s	12.6	24.1	14.3	6.7	4.5	19.8	6.7	13.9
Green Ext Time (p_c), s	0.0	2.7	0.1	1.7	0.0	13.6	0.1	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	29.8
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	515	15	0	201	0	6
Future Vol, veh/h	515	15	0	201	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	560	16	0	218	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	568
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	522
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	522
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	522	-	-	-
HCM Lane V/C Ratio	0.012	-	-	-
HCM Control Delay (s)	12	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	340	636	348	145	5	1025	10	363	5	5	15
Future Volume (veh/h)	5	340	636	348	145	5	1025	10	363	5	5	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1624	1792	1810	1863	1796	1900	1827	1795	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	420	0	430	179	6	1265	12	448	6	6	19
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	17	6	5	2	6	6	4	0	0	0	0	0
Cap, veh/h	11	332	285	281	580	19	890	20	763	44	10	31
Arrive On Green	0.01	0.19	0.00	0.16	0.34	0.34	0.51	0.51	0.51	0.02	0.02	0.02
Sat Flow, veh/h	1547	1792	1538	1774	1728	58	1740	40	1492	1810	402	1273
Grp Volume(v), veh/h	6	420	0	430	0	185	1265	0	460	6	0	25
Grp Sat Flow(s),veh/h/ln	1547	1792	1538	1774	0	1786	1740	0	1532	1810	0	1675
Q Serve(g_s), s	0.6	27.5	0.0	23.5	0.0	11.4	76.0	0.0	31.2	0.5	0.0	2.2
Cycle Q Clear(g_c), s	0.6	27.5	0.0	23.5	0.0	11.4	76.0	0.0	31.2	0.5	0.0	2.2
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.97	1.00		0.76
Lane Grp Cap(c), veh/h	11	332	285	281	0	600	890	0	783	44	0	41
V/C Ratio(X)	0.53	1.27	0.00	1.53	0.00	0.31	1.42	0.00	0.59	0.14	0.00	0.61
Avail Cap(c_a), veh/h	52	332	285	281	0	600	890	0	783	61	0	56
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	73.5	60.6	0.0	62.6	0.0	36.6	36.3	0.0	25.4	71.0	0.0	71.8
Incr Delay (d2), s/veh	32.7	141.6	0.0	257.0	0.0	0.3	196.3	0.0	1.1	1.4	0.0	14.1
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	0.3	26.6	0.0	31.5	0.0	5.7	84.9	0.0	13.4	0.3	0.0	1.2
LnGrp Delay(d),s/veh	106.2	202.2	0.0	319.5	0.0	36.9	232.6	0.0	26.5	72.4	0.0	85.9
LnGrp LOS	F	F		F		D	F		C	E		F
Approach Vol, veh/h		426			615			1725			31	
Approach Delay, s/veh		200.8			234.5			177.7			83.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		80.5	28.0	32.0		8.1	5.6	54.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		76.0	23.5	27.5		5.0	5.0	46.0
Max Q Clear Time (g_c+I1), s		78.0	25.5	29.5		4.2	2.6	13.4
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	192.6
HCM 2010 LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	270	1180	14	180	986
Future Volume (veh/h)	34	270	1180	14	180	986
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1845	1900	1696	1827
Adj Flow Rate, veh/h	35	281	1229	15	188	1027
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	3	3	12	4
Cap, veh/h	41	325	1446	18	248	2196
Arrive On Green	0.22	0.22	0.41	0.41	0.15	0.63
Sat Flow, veh/h	181	1449	3640	43	1616	3563
Grp Volume(v), veh/h	317	0	607	637	188	1027
Grp Sat Flow(s),veh/h/ln	1635	0	1753	1838	1616	1736
Q Serve(g_s), s	11.8	0.0	19.8	19.8	7.0	9.7
Cycle Q Clear(g_c), s	11.8	0.0	19.8	19.8	7.0	9.7
Prop In Lane	0.11	0.89		0.02	1.00	
Lane Grp Cap(c), veh/h	367	0	714	749	248	2196
V/C Ratio(X)	0.86	0.00	0.85	0.85	0.76	0.47
Avail Cap(c_a), veh/h	470	0	776	814	269	2363
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.5	0.0	16.9	16.9	25.5	6.0
Incr Delay (d2), s/veh	12.6	0.0	8.4	8.0	10.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	11.1	11.6	3.9	4.6
LnGrp Delay(d),s/veh	36.1	0.0	25.3	25.0	36.3	6.2
LnGrp LOS	D		C	C	D	A
Approach Vol, veh/h	317		1244			1215
Approach Delay, s/veh	36.1		25.1			10.9
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.2	30.2				44.4		18.6
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	10.5	27.9				42.9		18.1
Max Q Clear Time (g_c+I1), s	9.0	21.8				11.7		13.8
Green Ext Time (p_c), s	1.0	3.9				9.7		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	226.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	10	5	44	0	5	5	989	274	100	1275	5
Future Vol, veh/h	0	10	5	44	0	5	5	989	274	100	1275	5
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	-	-	30	-	-	30	105	-	-	105	-	-
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, %	0	0	0	0	0	0	0	4	8	0	4	50
Mvmt Flow	0	11	5	48	0	5	5	1075	298	109	1386	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2154	2990	696	2151	2844	686	1391	0	0	1373	0	0
Stage 1	1606	1606	-	1235	1235	-	-	-	-	-	-	-
Stage 2	548	1384	-	916	1609	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	28	14	389	~ 28	17	395	498	-	-	506	-	-
Stage 1	112	166	-	190	251	-	-	-	-	-	-	-
Stage 2	493	213	-	297	165	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	23	11	389	~ 2	13	395	498	-	-	506	-	-
Mov Cap-2 Maneuver	23	11	-	~ 2	13	-	-	-	-	-	-	-
Stage 1	111	130	-	188	248	-	-	-	-	-	-	-
Stage 2	481	211	-	211	129	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 478.9	$ 12338.4	0	1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	498	-	-	11	389	2	395	506	-	-
HCM Lane V/C Ratio	0.011	-	-	0.988	0.014	23.913	0.014	0.215	-	-
HCM Control Delay (s)	12.3	-	-	$ 711.1	14.4	$ 13738.9	14.2	14.1	-	-
HCM Lane LOS	B	-	-	F	B	F	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	2	0	8	0	0.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	65	204	60	15	10	114	293	50	15	193	105
Future Volume (veh/h)	310	65	204	60	15	10	114	293	50	15	193	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1854	1881	1900	1874	1900	1900	1855	1900	1900	1845	1827
Adj Flow Rate, veh/h	508	107	334	98	25	16	187	480	82	25	316	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Percent Heavy Veh, %	0	0	1	0	0	0	0	2	2	0	3	4
Cap, veh/h	540	114	587	121	31	20	218	536	92	44	463	390
Arrive On Green	0.37	0.37	0.37	0.10	0.10	0.10	0.12	0.35	0.35	0.02	0.25	0.00
Sat Flow, veh/h	1471	310	1599	1251	319	204	1810	1544	264	1810	1845	1553
Grp Volume(v), veh/h	615	0	334	139	0	0	187	0	562	25	316	0
Grp Sat Flow(s),veh/h/ln	1781	0	1599	1775	0	0	1810	0	1808	1810	1845	1553
Q Serve(g_s), s	36.5	0.0	18.2	8.4	0.0	0.0	11.1	0.0	32.1	1.5	16.9	0.0
Cycle Q Clear(g_c), s	36.5	0.0	18.2	8.4	0.0	0.0	11.1	0.0	32.1	1.5	16.9	0.0
Prop In Lane	0.83		1.00	0.71		0.12	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	653	0	587	172	0	0	218	0	627	44	463	390
V/C Ratio(X)	0.94	0.00	0.57	0.81	0.00	0.00	0.86	0.00	0.90	0.57	0.68	0.00
Avail Cap(c_a), veh/h	677	0	608	293	0	0	250	0	627	85	463	390
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.4	0.0	27.7	48.3	0.0	0.0	47.1	0.0	33.8	52.7	36.9	0.0
Incr Delay (d2), s/veh	21.1	0.0	1.2	8.6	0.0	0.0	22.5	0.0	17.9	11.0	7.9	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	21.8	0.0	8.2	4.5	0.0	0.0	6.9	0.0	19.2	0.9	9.6	0.0
LnGrp Delay(d),s/veh	54.5	0.0	28.8	56.9	0.0	0.0	69.6	0.0	51.7	63.7	44.9	0.0
LnGrp LOS	D		C	E			E		D	E	D	
Approach Vol, veh/h		949			139			749			341	
Approach Delay, s/veh		45.5			56.9			56.2			46.2	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	42.4		44.5	17.6	31.9		15.1
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.1	37.4		41.5	15.1	27.4		18.0
Max Q Clear Time (g_c+I1), s	3.5	34.1		38.5	13.1	18.9		10.4
Green Ext Time (p_c), s	0.0	1.7		1.6	0.1	3.6		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	50.0
HCM 2010 LOS	D

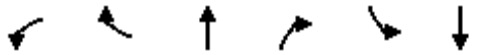
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	11	23	368	391	2
Future Vol, veh/h	1	11	23	368	391	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	-	-	85	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	3	2	0
Mvmt Flow	1	12	26	409	434	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	896	436	437	0	-	0
Stage 1	436	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	313	625	1112	-	-	-
Stage 1	656	-	-	-	-	-
Stage 2	640	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	306	625	1112	-	-	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	656	-	-	-	-	-
Stage 2	625	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1112	-	575	-	-
HCM Lane V/C Ratio	0.023	-	0.023	-	-
HCM Control Delay (s)	8.3	-	11.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	9	105	286	24	245	157
Future Volume (veh/h)	9	105	286	24	245	157
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1812	1900	1863	1845
Adj Flow Rate, veh/h	10	114	311	26	266	171
Adj No. of Lanes	0	0	1	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	4	4	2	3
Cap, veh/h	13	147	705	59	326	1306
Arrive On Green	0.10	0.10	0.43	0.43	0.18	0.71
Sat Flow, veh/h	130	1487	1650	138	1774	1845
Grp Volume(v), veh/h	125	0	0	337	266	171
Grp Sat Flow(s),veh/h/ln	1631	0	0	1788	1774	1845
Q Serve(g_s), s	3.5	0.0	0.0	6.2	6.7	1.4
Cycle Q Clear(g_c), s	3.5	0.0	0.0	6.2	6.7	1.4
Prop In Lane	0.08	0.91		0.08	1.00	
Lane Grp Cap(c), veh/h	161	0	0	764	326	1306
V/C Ratio(X)	0.78	0.00	0.00	0.44	0.81	0.13
Avail Cap(c_a), veh/h	630	0	0	764	400	1306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	0.0	9.4	18.3	2.2
Incr Delay (d2), s/veh	7.8	0.0	0.0	1.8	10.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	3.4	4.2	0.7
LnGrp Delay(d),s/veh	28.3	0.0	0.0	11.3	28.5	2.4
LnGrp LOS	C			B	C	A
Approach Vol, veh/h	125		337			437
Approach Delay, s/veh	28.3		11.3			18.3
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.1	24.4				37.5		9.1
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	10.5	18.0				33.0		18.0
Max Q Clear Time (g_c+I1), s	8.7	8.2				3.4		5.5
Green Ext Time (p_c), s	0.2	2.2				3.3		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.0
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	0	390	5	0	160
Future Vol, veh/h	5	0	390	5	0	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	70	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	48	48	48	48	48	48
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	10	0	813	10	0	333

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1151	818	0	0	823	0
Stage 1	818	-	-	-	-	-
Stage 2	333	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	221	379	-	-	816	-
Stage 1	437	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	221	379	-	-	816	-
Mov Cap-2 Maneuver	221	-	-	-	-	-
Stage 1	437	-	-	-	-	-
Stage 2	731	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	221	-	816	-
HCM Lane V/C Ratio	-	-	0.047	-	-	-
HCM Control Delay (s)	-	-	22.1	0	0	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	-	0	-

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	0	1	29	0	13	2	382	35	13	152	0
Future Vol, veh/h	0	0	1	29	0	13	2	382	35	13	152	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	-	-	-	-	-	-	150	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	51	51	51	51	51	51	51	51	51	51	51	51
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	2	0
Mvmt Flow	0	0	2	57	0	25	4	749	69	25	298	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1153	1174	298	1141	1140	783	298	0	0	818	0	0
Stage 1	349	349	-	791	791	-	-	-	-	-	-	-
Stage 2	804	825	-	350	349	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	176	193	746	179	203	397	1275	-	-	819	-	-
Stage 1	671	637	-	386	404	-	-	-	-	-	-	-
Stage 2	380	390	-	671	637	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	160	187	746	174	196	397	1275	-	-	819	-	-
Mov Cap-2 Maneuver	160	187	-	174	196	-	-	-	-	-	-	-
Stage 1	669	618	-	385	403	-	-	-	-	-	-	-
Stage 2	354	389	-	649	618	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	32.6	0	0.8
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1275	-	-	746	211	819	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003	0.39	0.031	-	-
HCM Control Delay (s)	7.8	-	-	9.8	32.6	9.5	-	-
HCM Lane LOS	A	-	-	A	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	1.7	0.1	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	17	402	69	7	175
Future Vol, veh/h	68	17	402	69	7	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	131	33	773	133	13	337

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1202	839	0	0	906	0
Stage 1	839	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	206	369	-	-	759	-
Stage 1	427	-	-	-	-	-
Stage 2	708	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	202	369	-	-	759	-
Mov Cap-2 Maneuver	325	-	-	-	-	-
Stage 1	427	-	-	-	-	-
Stage 2	696	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.8	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	325	369	759	-
HCM Lane V/C Ratio	-	-	0.402	0.089	0.018	-
HCM Control Delay (s)	-	-	23.3	15.7	9.8	-
HCM Lane LOS	-	-	C	C	A	-
HCM 95th %tile Q(veh)	-	-	1.9	0.3	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	21	33	455	246	1
Future Vol, veh/h	0	21	33	455	246	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	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	12	10	1	1	0
Mvmt Flow	0	38	60	827	447	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1395	448	449	0	-	0
Stage 1	448	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Critical Hdwy	6.4	6.32	4.2	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.408	2.29	-	-	-
Pot Cap-1 Maneuver	157	590	1070	-	-	-
Stage 1	648	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	148	590	1070	-	-	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	648	-	-	-	-	-
Stage 2	359	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1070	-	590	-	-
HCM Lane V/C Ratio	0.056	-	0.065	-	-
HCM Control Delay (s)	8.6	-	11.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	17.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	149	10	5	20	88	818	5	5	650	10
Future Vol, veh/h	0	0	149	10	5	20	88	818	5	5	650	10
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	-	-	-	-	-	-	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	50	4	22	0	5	1	2	0	0	2	13
Mvmt Flow	0	0	204	14	7	27	121	1121	7	7	890	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	890	2269	2269	1124	890	0	0	1127	0	0
Stage 1	-	-	-	1365	1365	-	-	-	-	-	-	-
Stage 2	-	-	-	904	904	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	7.32	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	3.698	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	339	25	41	246	766	-	-	627	-	-
Stage 1	0	0	-	165	217	-	-	-	-	-	-	-
Stage 2	0	0	-	306	358	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	339	~ 9	34	246	766	-	-	627	-	-
Mov Cap-2 Maneuver	-	-	-	~ 9	34	-	-	-	-	-	-	-
Stage 1	-	-	-	139	183	-	-	-	-	-	-	-
Stage 2	-	-	-	120	354	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.5	$ 721.9	1	0.1
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	766	-	-	339	26	627	-	-
HCM Lane V/C Ratio	0.157	-	-	0.602	1.844	0.011	-	-
HCM Control Delay (s)	10.6	-	-	30.5	$ 721.9	10.8	-	-
HCM Lane LOS	B	-	-	D	F	B	-	-
HCM 95th %tile Q(veh)	0.6	-	-	3.7	5.8	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	521	5	17	195	11	11
Future Vol, veh/h	521	5	17	195	11	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	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	566	5	18	212	12	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	572	0	818	569
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	249	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1001	-	346	522
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1001	-	340	522
Mov Cap-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	778	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	481	-	-	1001	-
HCM Lane V/C Ratio	0.05	-	-	0.018	-
HCM Control Delay (s)	12.9	-	-	8.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Project Driveway Option B

HCM Signalized Intersection Capacity Analysis
7: Sierra College Blvd & Brace Rd

01/21/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	65	297	0	220	0	861	27	80	1881	55
Future Volume (vph)	0	0	65	297	0	220	0	861	27	80	1881	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1447	1770		1495		4893	1583	1736	5066	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1447	1770		1495		4893	1583	1736	5066	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	69	316	0	234	0	916	29	85	2001	59
RTOR Reduction (vph)	0	0	65	0	0	163	0	0	12	0	4	0
Lane Group Flow (vph)	0	0	4	316	0	71	0	916	17	85	2056	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			3.1	5.5		13.1		27.6	33.1	3.9	35.5	
Effective Green, g (s)			3.1	5.5		13.1		27.6	33.1	3.9	35.5	
Actuated g/C Ratio			0.05	0.09		0.23		0.48	0.57	0.07	0.61	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			77	167		337		2324	901	116	3095	
v/s Ratio Prot				c0.18				0.19	0.00	0.05	c0.41	
v/s Ratio Perm			0.00			c0.05			0.01			
v/c Ratio			0.05	1.89		0.21		0.39	0.02	0.73	0.66	
Uniform Delay, d1			26.1	26.3		18.3		9.8	5.4	26.6	7.4	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.3	423.2		0.4		0.2	0.0	18.4	0.6	
Delay (s)			26.4	449.5		18.7		10.0	5.4	45.0	8.0	
Level of Service			C	F		B		B	A	D	A	
Approach Delay (s)		26.4			266.2			9.9			9.5	
Approach LOS		C			F			A			A	

Intersection Summary			
HCM 2000 Control Delay	48.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	58.1	Sum of lost time (s)	18.0
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	11	125	170	31	25	350	1002	100	80	1956	147
Future Volume (veh/h)	72	11	125	170	31	25	350	1002	100	80	1956	147
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1785	1900	1743	1845	1863
Adj Flow Rate, veh/h	75	11	130	177	32	26	365	1044	104	83	2038	153
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	7	9	3	2
Cap, veh/h	94	129	182	201	241	210	390	2702	269	104	2184	677
Arrive On Green	0.06	0.07	0.07	0.12	0.14	0.14	0.23	0.60	0.60	0.06	0.43	0.43
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	4506	448	1660	5036	1562
Grp Volume(v), veh/h	75	11	130	177	32	26	365	752	396	83	2038	153
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1624	1705	1660	1679	1562
Q Serve(g_s), s	5.4	0.7	6.2	12.7	2.0	1.8	25.2	14.5	14.5	5.9	46.3	7.4
Cycle Q Clear(g_c), s	5.4	0.7	6.2	12.7	2.0	1.8	25.2	14.5	14.5	5.9	46.3	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	94	129	182	201	241	210	390	1948	1023	104	2184	677
V/C Ratio(X)	0.80	0.09	0.72	0.88	0.13	0.12	0.94	0.39	0.39	0.80	0.93	0.23
Avail Cap(c_a), veh/h	186	435	611	207	452	395	412	1948	1023	196	2257	700
HCM Platoon Ratio	1.00	1.00	1.00	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	56.0	51.9	54.4	51.9	45.4	45.3	45.5	12.5	12.5	55.6	32.4	21.4
Incr Delay (d2), s/veh	14.1	0.3	5.2	32.0	0.2	0.3	28.1	0.3	0.5	13.1	8.1	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	2.8	0.4	2.2	7.6	0.9	0.8	14.9	6.6	7.0	3.1	23.0	3.3
LnGrp Delay(d),s/veh	70.1	52.1	59.6	83.9	45.6	45.6	73.6	12.8	13.1	68.8	40.5	21.7
LnGrp LOS	E	D	E	F	D	D	E	B	B	E	D	C
Approach Vol, veh/h		216			235			1513			2274	
Approach Delay, s/veh		62.9			74.4			27.5			40.3	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	77.1	18.7	12.9	31.5	57.2	10.9	20.8
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	14.2	68.7	15.1	30.0	29.0	53.9	13.6	31.5
Max Q Clear Time (g_c+I1), s	7.9	16.5	14.7	8.2	27.2	48.3	7.4	4.0
Green Ext Time (p_c), s	0.1	51.0	0.0	0.8	0.2	3.9	0.1	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

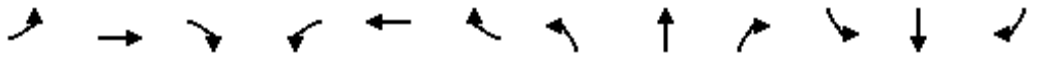
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	20	888	2163	5
Future Vol, veh/h	0	0	20	888	2163	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	21	935	2277	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1141	2282	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	0	169	92	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	169	92	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	92	-	-	-	-
HCM Lane V/C Ratio	0.229	-	-	-	-
HCM Control Delay (s)	55.4	-	0	-	-
HCM Lane LOS	F	-	A	-	-
HCM 95th %tile Q(veh)	0.8	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	33	142	0	58	93	825	144	56	2070	37
Future Volume (veh/h)	13	0	33	142	0	58	93	825	144	56	2070	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	14	0	36	154	0	63	101	897	157	61	2250	40
Adj No. of Lanes	1	1	0	2	1	0	1	3	1	1	3	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	30	0	95	232	0	175	129	2977	1034	85	2885	51
Arrive On Green	0.02	0.00	0.06	0.07	0.00	0.11	0.07	0.59	0.59	0.05	0.56	0.56
Sat Flow, veh/h	1774	0	1583	3442	0	1583	1774	5085	1583	1774	5146	91
Grp Volume(v), veh/h	14	0	36	154	0	63	101	897	157	61	1481	809
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1721	0	1583	1774	1695	1583	1774	1695	1847
Q Serve(g_s), s	0.6	0.0	1.6	3.3	0.0	2.8	4.2	6.7	2.9	2.6	25.7	25.8
Cycle Q Clear(g_c), s	0.6	0.0	1.6	3.3	0.0	2.8	4.2	6.7	2.9	2.6	25.7	25.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	30	0	95	232	0	175	129	2977	1034	85	1901	1035
V/C Ratio(X)	0.47	0.00	0.38	0.66	0.00	0.36	0.78	0.30	0.15	0.72	0.78	0.78
Avail Cap(c_a), veh/h	118	0	379	242	0	385	153	2977	1034	205	1901	1035
HCM Platoon Ratio	1.00	1.00	1.00	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	36.7	0.0	34.0	34.3	0.0	31.0	34.3	7.9	5.0	35.3	12.9	12.9
Incr Delay (d2), s/veh	10.9	0.0	2.5	6.3	0.0	1.2	19.6	0.3	0.3	10.8	3.2	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	0.4	0.0	0.8	1.8	0.0	1.3	2.8	3.1	1.3	1.5	12.8	14.7
LnGrp Delay(d),s/veh	47.6	0.0	36.5	40.6	0.0	32.2	54.0	8.1	5.3	46.1	16.1	18.8
LnGrp LOS	D		D	D		C	D	A	A	D	B	B
Approach Vol, veh/h		50			217			1155			2351	
Approach Delay, s/veh		39.6			38.1			11.7			17.8	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	48.6	9.6	9.0	10.0	46.7	5.8	12.8
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	8.7	40.0	5.3	18.0	6.5	42.2	5.0	18.3
Max Q Clear Time (g_c+I1), s	4.6	8.7	5.3	3.6	6.2	27.8	2.6	4.8
Green Ext Time (p_c), s	0.0	28.2	0.0	0.4	0.0	13.7	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

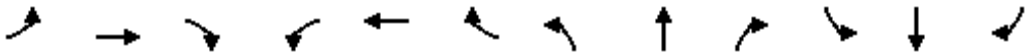
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	107	0	0	517	0	0
Future Vol, veh/h	107	0	0	517	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	-	-	-	-	-	-
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	116	0	0	562	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	116
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	936
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	936
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

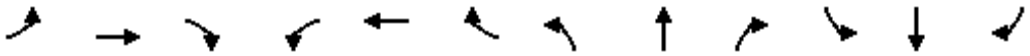
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	545	111	0	130	0	2110	378	322	1301	115
Future Volume (vph)	0	0	545	111	0	130	0	2110	378	322	1301	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes			0.99	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	0.99	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1603	1770		1553		5085	1615	1787	5031	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1603	1770		1553		5085	1615	1787	5031	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	568	116	0	135	0	2198	394	335	1355	120
RTOR Reduction (vph)	0	0	59	0	0	99	0	0	107	0	7	0
Lane Group Flow (vph)	0	0	509	116	0	36	0	2198	287	335	1468	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			33.0	5.0		42.5		82.5	87.5	21.0	107.5	
Effective Green, g (s)			33.0	5.0		42.5		82.5	87.5	21.0	107.5	
Actuated g/C Ratio			0.21	0.03		0.27		0.52	0.55	0.13	0.67	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			331	55		413		2630	885	235	3390	
v/s Ratio Prot				c0.07				c0.43	0.01	c0.19	0.29	
v/s Ratio Perm			c0.32			0.02			0.17			
v/c Ratio			1.54	2.11		0.09		0.84	0.32	1.43	0.43	
Uniform Delay, d1			63.2	77.2		43.9		32.7	19.8	69.2	12.0	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			256.0	555.1		0.1		2.6	0.2	214.4	0.1	
Delay (s)			319.3	632.3		44.1		35.3	20.0	283.7	12.1	
Level of Service			F	F		D		D	B	F	B	
Approach Delay (s)		319.3			315.9			33.0			62.4	
Approach LOS		F			F			C			E	

Intersection Summary			
HCM 2000 Control Delay	87.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	159.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	545	111	0	130	0	2110	378	322	1301	115
Future Volume (vph)	0	0	545	111	0	130	0	2110	378	322	1301	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes			0.99	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	0.99	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1603	1770		1553		5085	1615	1787	5031	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1603	1770		1553		5085	1615	1787	5031	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	568	116	0	135	0	2198	394	335	1355	120
RTOR Reduction (vph)	0	0	59	0	0	99	0	0	107	0	7	0
Lane Group Flow (vph)	0	0	509	116	0	36	0	2198	287	335	1468	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			33.0	5.0		42.5		82.5	87.5	21.0	107.5	
Effective Green, g (s)			33.0	5.0		42.5		82.5	87.5	21.0	107.5	
Actuated g/C Ratio			0.21	0.03		0.27		0.52	0.55	0.13	0.67	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			331	55		413		2630	885	235	3390	
v/s Ratio Prot				c0.07				c0.43	0.01	c0.19	0.29	
v/s Ratio Perm			c0.32			0.02			0.17			
v/c Ratio			1.54	2.11		0.09		0.84	0.32	1.43	0.43	
Uniform Delay, d1			63.2	77.2		43.9		32.7	19.8	69.2	12.0	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			256.0	555.1		0.1		2.6	0.2	214.4	0.1	
Delay (s)			319.3	632.3		44.1		35.3	20.0	283.7	12.1	
Level of Service			F	F		D		D	B	F	B	
Approach Delay (s)		319.3			315.9			33.0			62.4	
Approach LOS		F			F			C			E	

Intersection Summary			
HCM 2000 Control Delay	87.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	159.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	2488	1927	5
Future Vol, veh/h	0	20	5	2488	1927	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	2565	1987	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	996	1992	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.2	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.95	3.1	-	-	-
Pot Cap-1 Maneuver	0	204	129	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	204	129	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.6	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	129	-	204	-	-
HCM Lane V/C Ratio	0.04	-	0.101	-	-
HCM Control Delay (s)	34.1	-	24.6	-	-
HCM Lane LOS	D	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	0	83	370	0	167	48	2227	356	148	1739	60
Future Volume (veh/h)	105	0	83	370	0	167	48	2227	356	148	1739	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	114	0	90	402	0	182	52	2421	387	161	1890	65
Adj No. of Lanes	1	1	0	2	1	0	1	3	1	1	3	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	140	0	132	455	0	216	67	2658	1037	191	2991	103
Arrive On Green	0.08	0.00	0.08	0.13	0.00	0.14	0.04	0.52	0.52	0.11	0.59	0.59
Sat Flow, veh/h	1774	0	1583	3442	0	1583	1774	5085	1583	1774	5049	173
Grp Volume(v), veh/h	114	0	90	402	0	182	52	2421	387	161	1268	687
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1721	0	1583	1774	1695	1583	1774	1695	1832
Q Serve(g_s), s	7.4	0.0	6.4	13.4	0.0	13.1	3.4	50.6	13.0	10.4	28.4	28.5
Cycle Q Clear(g_c), s	7.4	0.0	6.4	13.4	0.0	13.1	3.4	50.6	13.0	10.4	28.4	28.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	140	0	132	455	0	216	67	2658	1037	191	2009	1086
V/C Ratio(X)	0.81	0.00	0.68	0.88	0.00	0.84	0.78	0.91	0.37	0.84	0.63	0.63
Avail Cap(c_a), veh/h	184	0	244	457	0	291	143	2658	1037	297	2009	1086
HCM Platoon Ratio	1.00	1.00	1.00	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	52.9	0.0	52.0	49.7	0.0	49.1	55.6	25.4	9.2	51.1	15.5	15.5
Incr Delay (d2), s/veh	18.6	0.0	6.1	18.2	0.0	15.2	17.1	6.0	1.0	12.3	1.5	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	4.3	0.0	3.0	7.5	0.0	6.6	2.0	25.0	5.9	5.7	13.6	15.2
LnGrp Delay(d),s/veh	71.5	0.0	58.1	67.9	0.0	64.3	72.7	31.4	10.2	63.3	17.0	18.3
LnGrp LOS	E		E	E		E	E	C	B	E	B	B
Approach Vol, veh/h		204			584			2860			2116	
Approach Delay, s/veh		65.6			66.8			29.3			20.9	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	65.5	19.9	14.2	8.9	73.6	13.7	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	19.5	59.0	15.5	18.0	9.4	69.1	12.1	21.4
Max Q Clear Time (g_c+I1), s	12.4	52.6	15.4	8.4	5.4	30.5	9.4	15.1
Green Ext Time (p_c), s	0.2	6.4	0.0	1.1	0.0	37.9	0.1	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	31.3
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	693	7	0	236	0	3
Future Vol, veh/h	693	7	0	236	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	-	-	-	-	-	-
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	753	8	0	257	0	3

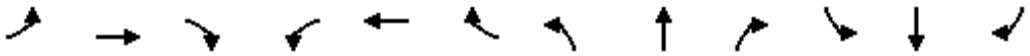
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	757
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	408
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	408
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	408	-	-	-
HCM Lane V/C Ratio	0.008	-	-	-
HCM Control Delay (s)	13.9	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

HCM Signalized Intersection Capacity Analysis
7: Sierra College Blvd & Brace Rd

01/21/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	270	127	0	80	0	1376	286	250	1209	110
Future Volume (vph)	0	0	270	127	0	80	0	1376	286	250	1209	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	0.99	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1601	1805		1455		5036	1599	1752	5030	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1601	1805		1455		5036	1599	1752	5030	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	281	132	0	83	0	1433	298	260	1259	115
RTOR Reduction (vph)	0	0	104	0	0	63	0	0	148	0	11	0
Lane Group Flow (vph)	0	0	177	132	0	20	0	1433	150	260	1363	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			13.1	5.0		22.6		41.8	46.8	15.1	60.9	
Effective Green, g (s)			13.1	5.0		22.6		41.8	46.8	15.1	60.9	
Actuated g/C Ratio			0.14	0.05		0.24		0.45	0.50	0.16	0.65	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			225	97		353		2263	804	284	3293	
v/s Ratio Prot				c0.07				c0.28	0.01	c0.15	0.27	
v/s Ratio Perm			c0.11			0.01			0.08			
v/c Ratio			0.79	1.36		0.06		0.63	0.19	0.92	0.41	
Uniform Delay, d1			38.6	44.0		27.0		19.7	12.7	38.3	7.6	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			16.4	215.2		0.1		0.7	0.1	31.5	0.1	
Delay (s)			55.0	259.2		27.1		20.4	12.8	69.8	7.7	
Level of Service			E	F		C		C	B	E	A	
Approach Delay (s)		55.0			169.6			19.1			17.6	
Approach LOS		E			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	93.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	24	210	196	34	65	210	1455	144	100	1452	203
Future Volume (veh/h)	294	24	210	196	34	65	210	1455	144	100	1452	203
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1864	1900	1845	1863	1881
Adj Flow Rate, veh/h	306	25	219	204	35	68	219	1516	150	104	1512	211
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	2	3	2	1
Cap, veh/h	344	243	370	243	129	119	256	2150	213	132	1955	606
Arrive On Green	0.20	0.13	0.13	0.14	0.07	0.07	0.15	0.46	0.46	0.07	0.38	0.38
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	4709	466	1757	5085	1577
Grp Volume(v), veh/h	306	25	219	204	35	68	219	1092	574	104	1512	211
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1697	1782	1757	1695	1577
Q Serve(g_s), s	14.8	1.0	6.4	9.8	1.6	3.5	10.6	22.2	22.3	5.0	22.4	8.2
Cycle Q Clear(g_c), s	14.8	1.0	6.4	9.8	1.6	3.5	10.6	22.2	22.3	5.0	22.4	8.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	344	243	370	243	129	119	256	1549	813	132	1955	606
V/C Ratio(X)	0.89	0.10	0.59	0.84	0.27	0.57	0.86	0.71	0.71	0.79	0.77	0.35
Avail Cap(c_a), veh/h	408	691	1054	359	612	562	299	1559	819	167	1955	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	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	33.6	32.9	35.2	36.2	37.8	38.6	35.9	18.8	18.8	39.2	23.2	18.8
Incr Delay (d2), s/veh	18.5	0.2	1.5	10.8	1.1	4.3	19.0	1.9	3.5	17.7	2.3	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	8.8	0.5	2.5	5.4	0.8	1.7	6.5	10.7	11.6	3.1	10.9	3.7
LnGrp Delay(d),s/veh	52.1	33.0	36.7	47.0	38.9	42.9	54.8	20.6	22.3	56.9	25.6	19.6
LnGrp LOS	D	C	D	D	D	D	D	C	C	E	C	B
Approach Vol, veh/h		550			307			1885			1827	
Approach Delay, s/veh		45.1			45.2			25.1			26.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	44.3	15.9	15.5	16.7	38.1	21.1	10.3
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	8.2	39.6	17.6	32.6	14.8	33.0	20.2	30.0
Max Q Clear Time (g_c+I1), s	7.0	24.3	11.8	8.4	12.6	24.4	16.8	5.5
Green Ext Time (p_c), s	0.0	15.1	0.3	1.4	0.1	8.5	0.3	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	10	1662	1606	0
Future Vol, veh/h	0	0	10	1662	1606	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	10	1713	1656	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	828	1656	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	0	273	190	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	273	190	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	190	-	-	-	-
HCM Lane V/C Ratio	0.054	-	-	-	-
HCM Control Delay (s)	25	-	0	-	-
HCM Lane LOS	D	-	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	0	90	439	0	241	52	1329	465	233	1317	56
Future Volume (veh/h)	98	0	90	439	0	241	52	1329	465	233	1317	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	107	0	98	477	0	262	57	1445	505	253	1432	61
Adj No. of Lanes	1	1	0	2	1	0	1	3	1	1	3	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	137	0	173	552	0	305	76	1835	825	294	2422	103
Arrive On Green	0.08	0.00	0.11	0.16	0.00	0.19	0.04	0.36	0.36	0.17	0.48	0.48
Sat Flow, veh/h	1774	0	1583	3442	0	1583	1774	5085	1583	1774	5002	213
Grp Volume(v), veh/h	107	0	98	477	0	262	57	1445	505	253	971	522
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1721	0	1583	1774	1695	1583	1774	1695	1825
Q Serve(g_s), s	5.2	0.0	5.2	11.9	0.0	14.2	2.8	22.4	19.8	12.3	18.3	18.3
Cycle Q Clear(g_c), s	5.2	0.0	5.2	11.9	0.0	14.2	2.8	22.4	19.8	12.3	18.3	18.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	137	0	173	552	0	305	76	1835	825	294	1641	884
V/C Ratio(X)	0.78	0.00	0.57	0.86	0.00	0.86	0.75	0.79	0.61	0.86	0.59	0.59
Avail Cap(c_a), veh/h	253	0	322	588	0	367	122	1835	825	431	1641	884
HCM Platoon Ratio	1.00	1.00	1.00	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	40.1	0.0	37.4	36.2	0.0	34.5	41.9	25.2	14.9	35.9	16.5	16.5
Incr Delay (d2), s/veh	9.4	0.0	2.9	12.1	0.0	15.8	14.0	3.5	3.4	11.2	1.6	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	2.9	0.0	2.4	6.6	0.0	7.5	1.7	11.0	9.4	6.9	8.9	9.9
LnGrp Delay(d),s/veh	49.5	0.0	40.3	48.3	0.0	50.3	55.9	28.7	18.2	47.1	18.1	19.4
LnGrp LOS	D		D	D		D	E	C	B	D	B	B
Approach Vol, veh/h		205			739			2007			1746	
Approach Delay, s/veh		45.1			49.0			26.9			22.7	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	36.4	18.7	14.2	8.3	47.3	11.3	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	21.5	27.4	15.1	18.0	6.1	42.8	12.6	20.5
Max Q Clear Time (g_c+I1), s	14.3	24.4	13.9	7.2	4.8	20.3	7.2	16.2
Green Ext Time (p_c), s	0.4	2.9	0.2	1.7	0.0	20.6	0.1	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	521	15	0	207	0	6
Future Vol, veh/h	521	15	0	207	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	566	16	0	225	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	574
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	518
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	518
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	518	-	-	-
HCM Lane V/C Ratio	0.013	-	-	-
HCM Control Delay (s)	12	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Project Driveway Option C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	65	295	0	222	0	859	25	80	1881	55
Future Volume (vph)	0	0	65	295	0	222	0	859	25	80	1881	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes			0.97	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1432	1770		1495		4893	1583	1736	5066	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1432	1770		1495		4893	1583	1736	5066	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	69	314	0	236	0	914	27	85	2001	59
RTOR Reduction (vph)	0	0	67	0	0	159	0	0	10	0	5	0
Lane Group Flow (vph)	0	0	2	314	0	77	0	914	17	85	2055	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	11%	2%	0%	8%	0%	6%	2%	4%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			1.7	13.1		19.3		23.2	36.3	3.3	30.5	
Effective Green, g (s)			1.7	13.1		19.3		23.2	36.3	3.3	30.5	
Actuated g/C Ratio			0.03	0.22		0.33		0.39	0.61	0.06	0.51	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			41	391		486		1914	969	96	2605	
v/s Ratio Prot				c0.18				0.19	0.00	0.05	c0.41	
v/s Ratio Perm			0.00			c0.05			0.01			
v/c Ratio			0.05	0.80		0.16		0.48	0.02	0.89	0.79	
Uniform Delay, d1			28.0	21.9		14.2		13.5	4.5	27.8	11.8	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.5	11.3		0.2		0.3	0.0	55.0	1.8	
Delay (s)			28.5	33.2		14.4		13.8	4.5	82.8	13.5	
Level of Service			C	C		B		B	A	F	B	
Approach Delay (s)		28.5			25.1			13.5			16.3	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	59.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	11	125	170	31	25	350	1002	100	80	1956	147
Future Volume (veh/h)	72	11	125	170	31	25	350	1002	100	80	1956	147
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1727	1776	1792	1785	1900	1743	1845	1863
Adj Flow Rate, veh/h	75	11	130	177	32	26	365	1044	104	83	2038	153
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	7	6	7	7	9	3	2
Cap, veh/h	94	129	182	201	241	210	390	2702	269	104	2184	677
Arrive On Green	0.06	0.07	0.07	0.12	0.14	0.14	0.23	0.60	0.60	0.06	0.43	0.43
Sat Flow, veh/h	1645	1743	2450	1645	1727	1509	1707	4505	448	1660	5036	1562
Grp Volume(v), veh/h	75	11	130	177	32	26	365	752	396	83	2038	153
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1645	1727	1509	1707	1624	1705	1660	1679	1562
Q Serve(g_s), s	5.4	0.7	6.2	12.7	2.0	1.8	25.2	14.5	14.5	5.9	46.3	7.4
Cycle Q Clear(g_c), s	5.4	0.7	6.2	12.7	2.0	1.8	25.2	14.5	14.5	5.9	46.3	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	94	129	182	201	241	210	390	1948	1023	104	2184	677
V/C Ratio(X)	0.80	0.09	0.72	0.88	0.13	0.12	0.94	0.39	0.39	0.80	0.93	0.23
Avail Cap(c_a), veh/h	186	435	611	207	452	395	412	1948	1023	196	2257	700
HCM Platoon Ratio	1.00	1.00	1.00	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	56.0	51.9	54.4	51.9	45.4	45.3	45.5	12.5	12.5	55.6	32.4	21.4
Incr Delay (d2), s/veh	14.1	0.3	5.2	32.0	0.2	0.3	28.1	0.3	0.5	13.1	8.1	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	2.8	0.4	2.2	7.6	0.9	0.8	14.9	6.6	7.0	3.1	23.0	3.3
LnGrp Delay(d),s/veh	70.1	52.1	59.6	83.9	45.6	45.6	73.6	12.8	13.1	68.8	40.5	21.7
LnGrp LOS	E	D	E	F	D	D	E	B	B	E	D	C
Approach Vol, veh/h		216			235			1513			2274	
Approach Delay, s/veh		62.9			74.4			27.5			40.3	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	77.1	18.7	12.9	31.5	57.2	10.9	20.8
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	14.2	68.7	15.1	30.0	29.0	53.9	13.6	31.5
Max Q Clear Time (g_c+I1), s	7.9	16.5	14.7	8.2	27.2	48.3	7.4	4.0
Green Ext Time (p_c), s	0.1	51.0	0.0	0.8	0.2	3.9	0.1	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

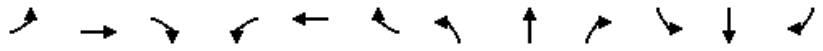
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	20	884	2161	5
Future Vol, veh/h	0	0	20	884	2161	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	7	3	0
Mvmt Flow	0	0	21	931	2275	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1140	2280	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	0	170	92	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	170	92	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	92	-	-	-	-
HCM Lane V/C Ratio	0.229	-	-	-	-
HCM Control Delay (s)	55.4	-	0	-	-
HCM Lane LOS	F	-	A	-	-
HCM 95th %tile Q(veh)	0.8	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	33	142	0	54	93	825	144	54	2070	37
Future Volume (veh/h)	13	0	33	142	0	54	93	825	144	54	2070	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	14	0	36	154	0	59	101	897	157	59	2250	40
Adj No. of Lanes	1	1	0	2	1	0	1	3	1	1	3	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	30	0	95	233	0	175	129	2977	1034	84	2881	51
Arrive On Green	0.02	0.00	0.06	0.07	0.00	0.11	0.07	0.59	0.59	0.05	0.56	0.56
Sat Flow, veh/h	1774	0	1583	3442	0	1583	1774	5085	1583	1774	5146	91
Grp Volume(v), veh/h	14	0	36	154	0	59	101	897	157	59	1481	809
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1721	0	1583	1774	1695	1583	1774	1695	1847
Q Serve(g_s), s	0.6	0.0	1.6	3.3	0.0	2.6	4.2	6.7	2.9	2.5	25.6	25.7
Cycle Q Clear(g_c), s	0.6	0.0	1.6	3.3	0.0	2.6	4.2	6.7	2.9	2.5	25.6	25.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	30	0	95	233	0	175	129	2977	1034	84	1898	1034
V/C Ratio(X)	0.47	0.00	0.38	0.66	0.00	0.34	0.78	0.30	0.15	0.71	0.78	0.78
Avail Cap(c_a), veh/h	118	0	380	252	0	391	154	2977	1034	173	1898	1034
HCM Platoon Ratio	1.00	1.00	1.00	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	36.5	0.0	33.9	34.1	0.0	30.8	34.2	7.8	5.0	35.2	12.9	12.9
Incr Delay (d2), s/veh	10.9	0.0	2.5	5.7	0.0	1.1	19.5	0.3	0.3	10.3	3.3	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	0.4	0.0	0.8	1.7	0.0	1.2	2.7	3.1	1.3	1.4	12.8	14.7
LnGrp Delay(d),s/veh	47.5	0.0	36.4	39.8	0.0	31.9	53.7	8.1	5.3	45.5	16.2	18.8
LnGrp LOS	D		D	D		C	D	A	A	D	B	B
Approach Vol, veh/h		50			213			1155			2349	
Approach Delay, s/veh		39.5			37.6			11.7			17.8	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	48.4	9.6	9.0	9.9	46.5	5.8	12.8
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	7.3	41.2	5.5	18.0	6.5	42.0	5.0	18.5
Max Q Clear Time (g_c+I1), s	4.5	8.7	5.3	3.6	6.2	27.7	2.6	4.6
Green Ext Time (p_c), s	0.0	29.2	0.0	0.4	0.0	13.5	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	17.3
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	105	0	0	517	0	0
Future Vol, veh/h	105	0	0	517	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	-	-	-	-	-	-
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	114	0	0	562	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	114
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	939
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	939
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)	-	-	-	-

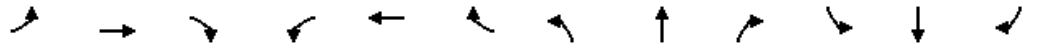
Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	105	1	3	515	5	4
Future Vol, veh/h	105	1	3	515	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	260	-	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	114	1	3	560	5	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	115	0	681	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	566	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1474	-	416	937
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	568	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1474	-	415	937
Mov Cap-2 Maneuver	-	-	-	-	485	-
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	567	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	617	-	-	1474	-
HCM Lane V/C Ratio	0.016	-	-	0.002	-
HCM Control Delay (s)	10.9	-	-	7.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	545	105	0	133	0	2107	375	322	1301	115
Future Volume (vph)	0	0	545	105	0	133	0	2107	375	322	1301	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes			0.99	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	0.99	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1604	1770		1553		5085	1615	1787	5031	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1604	1770		1553		5085	1615	1787	5031	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	568	109	0	139	0	2195	391	335	1355	120
RTOR Reduction (vph)	0	0	70	0	0	93	0	0	131	0	8	0
Lane Group Flow (vph)	0	0	498	109	0	46	0	2195	260	335	1467	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	2%	0%	4%	0%	2%	0%	1%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			31.0	7.5		43.0		52.5	60.0	21.0	77.5	
Effective Green, g (s)			31.0	7.5		43.0		52.5	60.0	21.0	77.5	
Actuated g/C Ratio			0.24	0.06		0.33		0.40	0.46	0.16	0.60	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			382	102		513		2053	745	288	2999	
v/s Ratio Prot				c0.06				c0.43	0.02	c0.19	0.29	
v/s Ratio Perm			c0.31			0.03			0.14			
v/c Ratio			1.30	1.07		0.09		1.07	0.35	1.16	0.49	
Uniform Delay, d1			49.5	61.2		30.0		38.8	22.5	54.5	15.0	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			154.5	108.8		0.1		41.3	0.3	104.7	0.2	
Delay (s)			204.0	170.1		30.1		80.1	22.7	159.2	15.1	
Level of Service			F	F		C		F	C	F	B	
Approach Delay (s)		204.0			91.6			71.4			41.8	
Approach LOS		F			F			E			D	

Intersection Summary			
HCM 2000 Control Delay	76.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	27	285	150	32	90	220	2121	84	100	1831	192
Future Volume (veh/h)	422	27	285	150	32	90	220	2121	84	100	1831	192
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1900	1863	1863	1881
Adj Flow Rate, veh/h	449	29	303	160	34	96	234	2256	89	106	1948	204
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	1
Cap, veh/h	429	403	603	188	165	138	232	2382	94	112	2051	636
Arrive On Green	0.24	0.22	0.22	0.11	0.09	0.09	0.13	0.47	0.47	0.06	0.40	0.40
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	5021	197	1774	5085	1577
Grp Volume(v), veh/h	449	29	303	160	34	96	234	1520	825	106	1948	204
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1695	1828	1774	1695	1577
Q Serve(g_s), s	30.0	1.6	12.3	11.3	2.2	7.7	17.0	54.0	54.7	7.5	46.8	11.2
Cycle Q Clear(g_c), s	30.0	1.6	12.3	11.3	2.2	7.7	17.0	54.0	54.7	7.5	46.8	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	429	403	603	188	165	138	232	1609	867	112	2051	636
V/C Ratio(X)	1.05	0.07	0.50	0.85	0.21	0.70	1.01	0.94	0.95	0.94	0.95	0.32
Avail Cap(c_a), veh/h	429	548	819	307	433	361	232	1609	867	112	2051	636
HCM Platoon Ratio	1.00	1.00	1.00	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	48.2	39.0	43.2	55.5	53.3	55.8	54.7	31.6	31.8	59.0	36.5	25.9
Incr Delay (d2), s/veh	55.9	0.1	0.6	11.6	0.6	6.2	61.7	12.1	20.1	67.3	10.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.6	0.8	4.7	6.1	1.1	3.5	12.0	27.8	32.3	5.8	23.8	5.0
LnGrp Delay(d),s/veh	104.1	39.1	43.8	67.1	53.9	62.0	116.5	43.7	51.9	126.3	47.1	26.5
LnGrp LOS	F	D	D	E	D	E	F	D	D	F	D	C
Approach Vol, veh/h		781			290			2579			2258	
Approach Delay, s/veh		78.3			63.9			53.0			49.0	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	65.0	17.5	31.9	21.0	56.0	34.0	15.4
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	60.0	22.1	37.9	17.0	51.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	9.5	56.7	13.3	14.3	19.0	48.8	32.0	9.7
Green Ext Time (p_c), s	0.0	3.3	0.3	1.9	0.0	2.2	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	55.3
HCM 2010 LOS	E

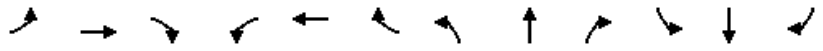
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	5	2482	1921	5
Future Vol, veh/h	0	20	5	2482	1921	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	2	2	50
Mvmt Flow	0	21	5	2559	1980	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	993	1985	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.2	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.95	3.1	-	-	-
Pot Cap-1 Maneuver	0	205	130	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	205	130	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.5	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	130	-	205	-	-
HCM Lane V/C Ratio	0.04	-	0.101	-	-
HCM Control Delay (s)	33.8	-	24.5	-	-
HCM Lane LOS	D	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	0	83	370	0	161	48	2227	356	142	1739	60
Future Volume (veh/h)	105	0	83	370	0	161	48	2227	356	142	1739	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	114	0	90	402	0	175	52	2421	387	154	1890	65
Adj No. of Lanes	1	1	0	2	1	0	1	3	1	1	3	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	141	0	132	449	0	212	67	2679	1040	174	2964	102
Arrive On Green	0.08	0.00	0.08	0.13	0.00	0.13	0.04	0.53	0.53	0.10	0.59	0.59
Sat Flow, veh/h	1774	0	1583	3442	0	1583	1774	5085	1583	1774	5049	173
Grp Volume(v), veh/h	114	0	90	402	0	175	52	2421	387	154	1268	687
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1721	0	1583	1774	1695	1583	1774	1695	1832
Q Serve(g_s), s	7.0	0.0	6.1	12.8	0.0	12.0	3.2	47.8	12.3	9.5	27.5	27.5
Cycle Q Clear(g_c), s	7.0	0.0	6.1	12.8	0.0	12.0	3.2	47.8	12.3	9.5	27.5	27.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	141	0	132	449	0	212	67	2679	1040	174	1990	1075
V/C Ratio(X)	0.81	0.00	0.68	0.90	0.00	0.82	0.78	0.90	0.37	0.89	0.64	0.64
Avail Cap(c_a), veh/h	179	0	256	449	0	303	145	2679	1040	174	1990	1075
HCM Platoon Ratio	1.00	1.00	1.00	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	50.4	0.0	49.6	47.6	0.0	46.9	53.1	23.8	8.7	49.6	15.2	15.2
Incr Delay (d2), s/veh	19.4	0.0	6.1	20.2	0.0	11.6	17.2	5.6	1.0	38.0	1.6	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	4.2	0.0	2.9	7.3	0.0	5.9	1.9	23.6	5.7	6.5	13.1	14.6
LnGrp Delay(d),s/veh	69.8	0.0	55.7	67.9	0.0	58.5	70.2	29.4	9.7	87.5	16.7	18.1
LnGrp LOS	E		E	E		E	E	C	A	F	B	B
Approach Vol, veh/h		204			577			2860			2109	
Approach Delay, s/veh		63.6			65.0			27.4			22.3	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	63.1	19.0	13.7	8.7	69.8	13.3	19.4
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	10.9	58.6	14.5	18.0	9.1	60.4	11.2	21.3
Max Q Clear Time (g_c+I1), s	11.5	49.8	14.8	8.1	5.2	29.5	9.0	14.0
Green Ext Time (p_c), s	0.0	8.7	0.0	1.1	0.0	30.4	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	30.6
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	690	7	0	233	0	3
Future Vol, veh/h	690	7	0	233	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	-	-	-	-	-	-
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	750	8	0	253	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	754
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	409
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	409
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	409	-	-	-
HCM Lane V/C Ratio	0.008	-	-	-
HCM Control Delay (s)	13.9	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	693	5	11	230	6	6
Future Vol, veh/h	693	5	11	230	6	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	260	-	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	753	5	12	250	7	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	759	0	1030	756
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	274	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	852	-	259	408
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	772	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	852	-	255	408
Mov Cap-2 Maneuver	-	-	-	-	368	-
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	761	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	14.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	387	-	-	852	-
HCM Lane V/C Ratio	0.034	-	-	0.014	-
HCM Control Delay (s)	14.6	-	-	9.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	270	115	0	86	0	1370	280	250	1209	110
Future Volume (vph)	0	0	270	115	0	86	0	1370	280	250	1209	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Lane Util. Factor			1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes			0.98	1.00		1.00		1.00	1.00	1.00	1.00	
Flpb, ped/bikes			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt			0.86	1.00		0.85		1.00	0.85	1.00	0.99	
Flt Protected			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1599	1805		1455		5036	1599	1752	5030	
Flt Permitted			1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1599	1805		1455		5036	1599	1752	5030	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	281	120	0	90	0	1427	292	260	1259	115
RTOR Reduction (vph)	0	0	165	0	0	66	0	0	161	0	16	0
Lane Group Flow (vph)	0	0	116	120	0	24	0	1427	131	260	1358	0
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	0%	1%	0%	0%	11%	0%	3%	1%	3%	2%	0%
Turn Type			Perm	Prot		Perm		NA	pm+ov	Prot	NA	
Protected Phases				3				6	3	5	2	
Permitted Phases			4			8			6			
Actuated Green, G (s)			7.0	5.5		17.0		23.5	29.0	10.5	38.0	
Effective Green, g (s)			7.0	5.5		17.0		23.5	29.0	10.5	38.0	
Actuated g/C Ratio			0.11	0.09		0.26		0.36	0.45	0.16	0.59	
Clearance Time (s)			4.0	4.5		4.0		5.5	4.5	4.0	5.5	
Vehicle Extension (s)			3.0	3.0		4.0		4.0	3.0	0.5	4.0	
Lane Grp Cap (vph)			173	153		383		1834	718	285	2963	
v/s Ratio Prot				c0.07				c0.28	0.02	c0.15	0.27	
v/s Ratio Perm			c0.07			0.02			0.07			
v/c Ratio			0.67	0.78		0.06		0.78	0.18	0.91	0.46	
Uniform Delay, d1			27.6	28.9		17.8		18.2	10.6	26.5	7.5	
Progression Factor			1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			9.8	22.6		0.1		2.3	0.1	30.9	0.2	
Delay (s)			37.4	51.5		17.9		20.5	10.8	57.4	7.6	
Level of Service			D	D		B		C	B	E	A	
Approach Delay (s)		37.4			37.1			18.8			15.5	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	64.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	24	210	196	34	65	210	1455	144	100	1452	203
Future Volume (veh/h)	294	24	210	196	34	65	210	1455	144	100	1452	203
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1864	1900	1845	1863	1881
Adj Flow Rate, veh/h	306	25	219	204	35	68	219	1516	150	104	1512	211
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	2	3	2	1
Cap, veh/h	344	243	370	243	129	119	256	2150	213	132	1955	606
Arrive On Green	0.20	0.13	0.13	0.14	0.07	0.07	0.15	0.46	0.46	0.07	0.38	0.38
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	4709	466	1757	5085	1577
Grp Volume(v), veh/h	306	25	219	204	35	68	219	1092	574	104	1512	211
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1697	1782	1757	1695	1577
Q Serve(g_s), s	14.8	1.0	6.4	9.8	1.6	3.5	10.6	22.2	22.3	5.0	22.4	8.2
Cycle Q Clear(g_c), s	14.8	1.0	6.4	9.8	1.6	3.5	10.6	22.2	22.3	5.0	22.4	8.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	344	243	370	243	129	119	256	1549	813	132	1955	606
V/C Ratio(X)	0.89	0.10	0.59	0.84	0.27	0.57	0.86	0.71	0.71	0.79	0.77	0.35
Avail Cap(c_a), veh/h	408	691	1054	359	612	562	299	1559	819	167	1955	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	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	33.6	32.9	35.2	36.2	37.8	38.6	35.9	18.8	18.8	39.2	23.2	18.8
Incr Delay (d2), s/veh	18.5	0.2	1.5	10.8	1.1	4.3	19.0	1.9	3.5	17.7	2.3	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	8.8	0.5	2.5	5.4	0.8	1.7	6.5	10.7	11.6	3.1	10.9	3.7
LnGrp Delay(d),s/veh	52.1	33.0	36.7	47.0	38.9	42.9	54.8	20.6	22.3	56.9	25.6	19.6
LnGrp LOS	D	C	D	D	D	D	D	C	C	E	C	B
Approach Vol, veh/h		550			307			1885			1827	
Approach Delay, s/veh		45.1			45.2			25.1			26.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	44.3	15.9	15.5	16.7	38.1	21.1	10.3
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	8.2	39.6	17.6	32.6	14.8	33.0	20.2	30.0
Max Q Clear Time (g_c+I1), s	7.0	24.3	11.8	8.4	12.6	24.4	16.8	5.5
Green Ext Time (p_c), s	0.0	15.1	0.3	1.4	0.1	8.5	0.3	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	10	1650	1594	0
Future Vol, veh/h	0	0	10	1650	1594	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	-	-	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	0	0	10	1701	1643	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	822	1643	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	5.3	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	0	276	193	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	276	193	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	193	-	-	-	-
HCM Lane V/C Ratio	0.053	-	-	-	-
HCM Control Delay (s)	24.7	-	0	-	-
HCM Lane LOS	C	-	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	0	90	439	0	229	52	1329	465	221	1317	56
Future Volume (veh/h)	98	0	90	439	0	229	52	1329	465	221	1317	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	107	0	98	477	0	249	57	1445	505	240	1432	61
Adj No. of Lanes	1	1	0	2	1	0	1	3	1	1	3	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	138	0	167	560	0	302	80	1761	806	279	2292	98
Arrive On Green	0.08	0.00	0.11	0.16	0.00	0.19	0.05	0.35	0.35	0.16	0.46	0.46
Sat Flow, veh/h	1774	0	1583	3442	0	1583	1774	5085	1583	1774	5002	213
Grp Volume(v), veh/h	107	0	98	477	0	249	57	1445	505	240	971	522
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1721	0	1583	1774	1695	1583	1774	1695	1825
Q Serve(g_s), s	4.7	0.0	4.7	10.6	0.0	11.9	2.5	20.5	18.1	10.4	17.1	17.1
Cycle Q Clear(g_c), s	4.7	0.0	4.7	10.6	0.0	11.9	2.5	20.5	18.1	10.4	17.1	17.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	138	0	167	560	0	302	80	1761	806	279	1553	836
V/C Ratio(X)	0.78	0.00	0.59	0.85	0.00	0.82	0.71	0.82	0.63	0.86	0.62	0.62
Avail Cap(c_a), veh/h	270	0	362	594	0	394	117	1761	806	295	1553	836
HCM Platoon Ratio	1.00	1.00	1.00	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	35.7	0.0	33.6	32.1	0.0	30.6	37.1	23.5	14.0	32.4	16.2	16.2
Incr Delay (d2), s/veh	9.0	0.0	3.2	11.0	0.0	10.5	11.0	4.4	3.7	21.2	1.9	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	2.6	0.0	2.2	5.9	0.0	6.1	1.5	10.2	8.6	6.7	8.4	9.4
LnGrp Delay(d),s/veh	44.7	0.0	36.9	43.0	0.0	41.1	48.1	28.0	17.6	53.6	18.1	19.7
LnGrp LOS	D		D	D		D	D	C	B	D	B	B
Approach Vol, veh/h		205			726			2007			1733	
Approach Delay, s/veh		41.0			42.4			25.9			23.5	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	31.8	17.3	12.8	8.1	40.6	10.6	19.5
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	13.1	27.3	13.6	18.0	5.2	35.2	12.0	19.6
Max Q Clear Time (g_c+I1), s	12.4	22.5	12.6	6.7	4.5	19.1	6.7	13.9
Green Ext Time (p_c), s	0.1	4.7	0.2	1.7	0.0	15.0	0.1	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	515	15	0	201	0	6
Future Vol, veh/h	515	15	0	201	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
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	560	16	0	218	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	568
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	522
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	522
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	522	-	-	-
HCM Lane V/C Ratio	0.012	-	-	-
HCM Control Delay (s)	12	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	521	5	17	195	11	11
Future Vol, veh/h	521	5	17	195	11	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	260	-	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	566	5	18	212	12	12

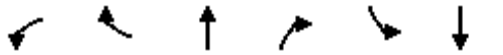
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	572	0	818	569
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	249	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1001	-	346	522
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1001	-	340	522
Mov Cap-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	778	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	481	-	-	1001	-
HCM Lane V/C Ratio	0.05	-	-	0.018	-
HCM Control Delay (s)	12.9	-	-	8.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Existing Plus Project with Mitigation Conditions

Project Driveway Option A



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	79	114	175	109	242	348
Future Volume (veh/h)	79	114	175	109	242	348
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1841	1900	1810	1827
Adj Flow Rate, veh/h	111	161	246	154	341	490
Adj No. of Lanes	0	0	1	0	1	1
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Percent Heavy Veh, %	0	0	4	4	5	4
Cap, veh/h	140	203	631	395	611	1088
Arrive On Green	0.20	0.20	0.60	0.60	0.60	0.60
Sat Flow, veh/h	687	997	1060	664	953	1827
Grp Volume(v), veh/h	273	0	0	400	341	490
Grp Sat Flow(s),veh/h/ln	1690	0	0	1723	953	1827
Q Serve(g_s), s	6.9	0.0	0.0	5.5	13.2	6.7
Cycle Q Clear(g_c), s	6.9	0.0	0.0	5.5	18.7	6.7
Prop In Lane	0.41	0.59		0.38	1.00	
Lane Grp Cap(c), veh/h	345	0	0	1027	611	1088
V/C Ratio(X)	0.79	0.00	0.00	0.39	0.56	0.45
Avail Cap(c_a), veh/h	681	0	0	1262	742	1338
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	0.0	0.0	4.8	9.7	5.0
Incr Delay (d2), s/veh	4.1	0.0	0.0	0.2	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.0	2.6	3.5	3.4
LnGrp Delay(d),s/veh	21.1	0.0	0.0	5.0	10.5	5.3
LnGrp LOS	C			A	B	A
Approach Vol, veh/h	273		400			831
Approach Delay, s/veh	21.1		5.0			7.4
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		31.3				31.3		13.7
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		32.9				32.9		18.1
Max Q Clear Time (g_c+I1), s		7.5				20.7		8.9
Green Ext Time (p_c), s		8.8				6.1		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	9.3
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	291	252	81	251	0	498	0	133	0	0	0
Future Volume (veh/h)	1	291	252	81	251	0	498	0	133	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1776	1845	1776	1792	1900	1900	1810	1827	1900	1900	1900
Adj Flow Rate, veh/h	1	303	0	84	261	0	519	0	139	0	0	0
Adj No. of Lanes	0	1	1	1	1	0	0	1	1	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	7	7	3	7	6	6	0	0	4	0	0	0
Cap, veh/h	113	530	468	580	535	0	727	0	655	0	6	0
Arrive On Green	0.30	0.30	0.00	0.30	0.30	0.00	0.42	0.00	0.42	0.00	0.00	0.00
Sat Flow, veh/h	1	1774	1568	1022	1792	0	1723	0	1553	0	1900	0
Grp Volume(v), veh/h	304	0	0	84	261	0	519	0	139	0	0	0
Grp Sat Flow(s),veh/h/ln	1775	0	1568	1022	1792	0	1723	0	1553	0	1900	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	3.8	0.0	8.0	0.0	1.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.7	0.0	0.0	1.5	3.8	0.0	8.0	0.0	1.8	0.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	642	0	468	580	535	0	727	0	655	0	6	0
V/C Ratio(X)	0.47	0.00	0.00	0.14	0.49	0.00	0.71	0.00	0.21	0.00	0.00	0.00
Avail Cap(c_a), veh/h	1111	0	882	850	1009	0	1361	0	1226	0	1063	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	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	9.5	0.0	0.0	8.4	9.3	0.0	7.7	0.0	5.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.7	0.0	1.3	0.0	0.2	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	2.4	0.0	0.0	0.6	2.0	0.0	4.0	0.0	0.8	0.0	0.0	0.0
LnGrp Delay(d),s/veh	10.1	0.0	0.0	8.5	9.9	0.0	9.0	0.0	6.1	0.0	0.0	0.0
LnGrp LOS	B			A	A		A		A			
Approach Vol, veh/h		304			345			658			0	
Approach Delay, s/veh		10.1			9.6			8.4			0.0	
Approach LOS		B			A			A				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		18.1		14.1		0.0		14.1
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		25.4		18.1		18.0		18.1
Max Q Clear Time (g_c+I1), s		10.0		6.7		0.0		5.8
Green Ext Time (p_c), s		3.5		3.0		0.0		3.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	149	9	2	19	111	481	5	5	565	8
Future Vol, veh/h	0	0	149	9	2	19	111	481	5	5	565	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	-	-	0	-	-	30	185	-	-	160	-	105
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	50	4	22	0	5	1	2	0	0	2	13
Mvmt Flow	0	0	204	12	3	26	152	659	7	7	774	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	774	1754	1754	662	774	0	0	666	0	0
Stage 1	-	-	-	966	966	-	-	-	-	-	-	-
Stage 2	-	-	-	788	788	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	7.32	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	3.698	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	395	59	86	457	846	-	-	933	-	-
Stage 1	0	0	-	282	336	-	-	-	-	-	-	-
Stage 2	0	0	-	356	405	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	395	24	70	457	846	-	-	933	-	-
Mov Cap-2 Maneuver	-	-	-	24	70	-	-	-	-	-	-	-
Stage 1	-	-	-	231	276	-	-	-	-	-	-	-
Stage 2	-	-	-	171	402	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.5	99.1	1.9	0.1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	846	-	-	395	27	457	933	-	-
HCM Lane V/C Ratio	0.18	-	-	0.517	0.558	0.057	0.007	-	-
HCM Control Delay (s)	10.2	-	-	23.5	247.2	13.4	8.9	-	-
HCM Lane LOS	B	-	-	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	2.9	1.7	0.2	0	-	-

Project Driveway Option B

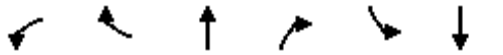
See Option A as noted in study

Project Driveway Option C

See Option A or B as noted in study

Cumulative Conditions – Short Term Plus Project with Mitigation Measures

Project Driveway Option A

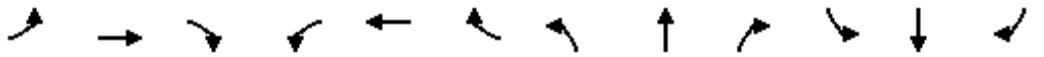


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	86	114	195	127	242	360
Future Volume (veh/h)	86	114	195	127	242	360
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1841	1900	1810	1827
Adj Flow Rate, veh/h	121	161	275	179	341	507
Adj No. of Lanes	0	0	1	0	1	1
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Percent Heavy Veh, %	0	0	4	4	5	4
Cap, veh/h	150	200	633	412	571	1109
Arrive On Green	0.21	0.21	0.61	0.61	0.61	0.61
Sat Flow, veh/h	724	964	1043	679	907	1827
Grp Volume(v), veh/h	283	0	0	454	341	507
Grp Sat Flow(s),veh/h/ln	1694	0	0	1721	907	1827
Q Serve(g_s), s	7.7	0.0	0.0	6.8	15.6	7.3
Cycle Q Clear(g_c), s	7.7	0.0	0.0	6.8	22.5	7.3
Prop In Lane	0.43	0.57		0.39	1.00	
Lane Grp Cap(c), veh/h	351	0	0	1045	571	1109
V/C Ratio(X)	0.81	0.00	0.00	0.43	0.60	0.46
Avail Cap(c_a), veh/h	631	0	0	1166	635	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	0.0	5.1	11.1	5.2
Incr Delay (d2), s/veh	4.4	0.0	0.0	0.3	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	0.0	3.2	4.1	3.8
LnGrp Delay(d),s/veh	22.7	0.0	0.0	5.4	12.4	5.5
LnGrp LOS	C			A	B	A
Approach Vol, veh/h	283		454			848
Approach Delay, s/veh	22.7		5.4			8.2
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		34.0				34.0		14.6
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		32.9				32.9		18.1
Max Q Clear Time (g_c+I1), s		8.8				24.5		9.7
Green Ext Time (p_c), s		9.5				5.0		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	10.0
HCM 2010 LOS	A

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	26	368	107	24	33	358	1851	69	61	1752	126
Future Volume (veh/h)	197	26	368	107	24	33	358	1851	69	61	1752	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1827	1827	1845	1827	1792	1810	1863	1900	1863	1864	1900
Adj Flow Rate, veh/h	210	28	391	114	26	35	381	1969	73	65	1864	134
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	3	4	6	5	2	2	2	2	2
Cap, veh/h	285	210	841	133	61	51	332	3206	119	83	2377	170
Arrive On Green	0.16	0.12	0.12	0.08	0.03	0.03	0.19	0.64	0.64	0.05	0.49	0.49
Sat Flow, veh/h	1810	1827	2733	1757	1827	1524	1723	5034	186	1774	4843	347
Grp Volume(v), veh/h	210	28	391	114	26	35	381	1325	717	65	1304	694
Grp Sat Flow(s),veh/h/ln	1810	1827	1367	1757	1827	1524	1723	1695	1830	1774	1696	1797
Q Serve(g_s), s	14.9	1.9	11.9	8.7	1.9	2.7	26.0	31.5	31.6	4.9	42.9	43.2
Cycle Q Clear(g_c), s	14.9	1.9	11.9	8.7	1.9	2.7	26.0	31.5	31.6	4.9	42.9	43.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.19
Lane Grp Cap(c), veh/h	285	210	841	133	61	51	332	2159	1165	83	1665	882
V/C Ratio(X)	0.74	0.13	0.47	0.86	0.43	0.69	1.15	0.61	0.62	0.79	0.78	0.79
Avail Cap(c_a), veh/h	285	433	1174	133	406	339	332	2159	1165	103	1665	882
HCM Platoon Ratio	1.00	1.00	1.00	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	0.63	0.63	0.63	0.62	0.62	0.62
Uniform Delay (d), s/veh	54.2	53.7	22.8	61.7	64.0	51.2	54.5	14.6	14.6	63.7	28.4	28.5
Incr Delay (d2), s/veh	9.7	0.3	0.4	39.6	4.7	15.4	86.9	0.8	1.5	17.9	2.4	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	8.2	1.0	4.5	5.7	1.0	1.4	20.4	14.8	16.4	2.8	20.7	22.5
LnGrp Delay(d),s/veh	63.9	54.0	23.2	101.3	68.7	66.6	141.4	15.4	16.2	81.5	30.8	33.0
LnGrp LOS	E	D	C	F	E	E	F	B	B	F	C	C
Approach Vol, veh/h		629			175			2423			2063	
Approach Delay, s/veh		38.2			89.5			35.5			33.1	
Approach LOS		D			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	91.0	14.2	19.5	30.0	71.3	25.2	8.5
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	7.8	68.0	10.2	32.0	26.0	49.8	12.2	30.0
Max Q Clear Time (g_c+I1), s	6.9	33.6	10.7	13.9	28.0	45.2	16.9	4.7
Green Ext Time (p_c), s	0.0	34.3	0.0	1.6	0.0	4.5	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	0	307	556	137	480	418	1639	392	0	2008	209
Future Volume (veh/h)	200	0	307	556	137	480	418	1639	392	0	2008	209
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1863	1845	1863	1810	1881	1845	1863	0	1792	1881
Adj Flow Rate, veh/h	213	0	327	591	146	511	445	1744	417	0	2136	222
Adj No. of Lanes	1	0	1	2	1	2	2	3	1	0	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	3	2	5	1	3	2	0	6	1
Cap, veh/h	166	0	0	1138	382	555	595	2940	924	0	1794	586
Arrive On Green	0.09	0.00	0.00	0.33	0.21	0.21	0.11	0.39	0.39	0.00	0.37	0.37
Sat Flow, veh/h	1810	213		3408	1863	2707	3476	5036	1583	0	5055	1599
Grp Volume(v), veh/h	213	225.9		591	146	511	445	1744	417	0	2136	222
Grp Sat Flow(s),veh/h/ln	1810	F		1704	1863	1354	1738	1679	1583	0	1631	1599
Q Serve(g_s), s	12.4			18.9	9.1	25.0	16.7	37.1	26.3	0.0	49.5	13.8
Cycle Q Clear(g_c), s	12.4			18.9	9.1	25.0	16.7	37.1	26.3	0.0	49.5	13.8
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	166			1138	382	555	595	2940	924	0	1794	586
V/C Ratio(X)	1.28			0.52	0.38	0.92	0.75	0.59	0.45	0.00	1.19	0.38
Avail Cap(c_a), veh/h	166			1424	538	782	595	2940	924	0	1794	586
HCM Platoon Ratio	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	1.00	1.00	1.00	0.00	0.22	0.22
Uniform Delay (d), s/veh	61.3			36.2	46.3	52.6	56.9	28.4	25.1	0.0	42.8	31.4
Incr Delay (d2), s/veh	164.6			0.1	0.2	10.5	4.6	0.9	1.6	0.0	87.1	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
%ile BackOfQ(50%),veh/ln	13.8			8.9	4.7	10.2	8.4	17.4	11.9	0.0	36.7	6.1
LnGrp Delay(d),s/veh	225.9			36.4	46.5	63.1	61.6	29.3	26.7	0.0	129.8	31.9
LnGrp LOS	F			D	D	E	E	C	C		F	C
Approach Vol, veh/h					1248			2606			2358	
Approach Delay, s/veh					48.5			34.4			120.6	
Approach LOS					D			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		85.0	50.0		29.3	55.7	17.0	33.0
Change Period (Y+Rc), s		6.2	4.9		6.2	* 6.2	4.6	5.3
Max Green Setting (Gmax), s		67.5	56.4		13.3	* 50	12.4	39.0
Max Q Clear Time (g_c+I1), s		39.1	20.9		18.7	51.5	14.4	27.0
Green Ext Time (p_c), s		7.3	0.4		0.0	0.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	75.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	291	382	132	251	0	590	0	171	0	0	0
Future Volume (veh/h)	1	291	382	132	251	0	590	0	171	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1776	1845	1776	1792	1900	1900	1810	1827	1900	1900	1900
Adj Flow Rate, veh/h	1	303	0	138	261	0	615	0	178	0	0	0
Adj No. of Lanes	0	1	1	1	1	0	0	1	1	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	7	7	3	7	6	6	0	0	4	0	0	0
Cap, veh/h	102	513	453	526	518	0	791	0	713	0	5	0
Arrive On Green	0.29	0.29	0.00	0.29	0.29	0.00	0.46	0.00	0.46	0.00	0.00	0.00
Sat Flow, veh/h	1	1774	1568	1022	1792	0	1723	0	1553	0	1900	0
Grp Volume(v), veh/h	304	0	0	138	261	0	615	0	178	0	0	0
Grp Sat Flow(s),veh/h/ln	1775	0	1568	1022	1792	0	1723	0	1553	0	1900	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	4.3	0.0	10.7	0.0	2.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.2	0.0	0.0	3.2	4.3	0.0	10.7	0.0	2.5	0.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	614	0	453	526	518	0	791	0	713	0	5	0
V/C Ratio(X)	0.49	0.00	0.00	0.26	0.50	0.00	0.78	0.00	0.25	0.00	0.00	0.00
Avail Cap(c_a), veh/h	996	0	791	746	904	0	1134	0	1022	0	266	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	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	10.9	0.0	0.0	10.2	10.6	0.0	8.1	0.0	5.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.8	0.0	2.2	0.0	0.2	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	2.6	0.0	0.0	1.1	2.2	0.0	5.4	0.0	1.1	0.0	0.0	0.0
LnGrp Delay(d),s/veh	11.5	0.0	0.0	10.4	11.3	0.0	10.3	0.0	6.1	0.0	0.0	0.0
LnGrp LOS	B			B	B		B		A			
Approach Vol, veh/h		304			399			793			0	
Approach Delay, s/veh		11.5			11.0			9.4			0.0	
Approach LOS		B			B			A				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.9		14.8		0.0		14.8
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		23.5		18.0		5.0		18.0
Max Q Clear Time (g_c+I1), s		12.7		7.2		0.0		6.3
Green Ext Time (p_c), s		3.7		3.1		0.0		3.2

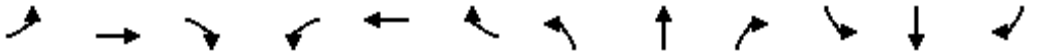
Intersection Summary	
HCM 2010 Ctrl Delay	10.2
HCM 2010 LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	16	81	1123	18	106	669
Future Volume (veh/h)	16	81	1123	18	106	669
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1863	1900	1863	1810
Adj Flow Rate, veh/h	17	87	1208	19	114	719
Adj No. of Lanes	0	0	1	0	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	2	2	2	5
Cap, veh/h	22	110	1484	23	287	1468
Arrive On Green	0.08	0.08	0.81	0.81	0.81	0.81
Sat Flow, veh/h	266	1364	1829	29	453	1810
Grp Volume(v), veh/h	105	0	0	1227	114	719
Grp Sat Flow(s),veh/h/ln	1646	0	0	1858	453	1810
Q Serve(g_s), s	5.2	0.0	0.0	30.6	15.6	10.4
Cycle Q Clear(g_c), s	5.2	0.0	0.0	30.6	46.3	10.4
Prop In Lane	0.16	0.83		0.02	1.00	
Lane Grp Cap(c), veh/h	133	0	0	1508	287	1468
V/C Ratio(X)	0.79	0.00	0.00	0.81	0.40	0.49
Avail Cap(c_a), veh/h	355	0	0	1623	316	1581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	0.0	0.0	4.4	17.2	2.5
Incr Delay (d2), s/veh	9.8	0.0	0.0	3.1	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	16.3	2.0	5.1
LnGrp Delay(d),s/veh	47.5	0.0	0.0	7.5	18.1	2.7
LnGrp LOS	D			A	B	A
Approach Vol, veh/h	105		1227			833
Approach Delay, s/veh	47.5		7.5			4.8
Approach LOS	D		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		72.3				72.3		11.3
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		73.0				73.0		18.0
Max Q Clear Time (g_c+I1), s		32.6				48.3		7.2
Green Ext Time (p_c), s		28.4				19.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

Notes

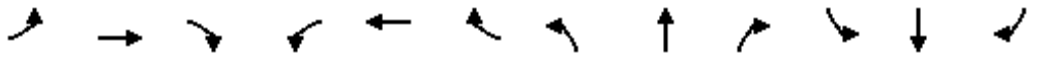


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	215	177	554	192	24	180	807	520	29	801	123
Future Volume (veh/h)	139	215	177	554	192	24	180	807	520	29	801	123
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1881	1845	1881	1863	1900	1792	1827	1863	1900	1863	1845
Adj Flow Rate, veh/h	148	229	188	589	204	26	191	859	553	31	852	131
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	1	3	1	2	0	6	4	2	0	2	3
Cap, veh/h	182	315	467	675	501	429	223	1340	919	43	950	584
Arrive On Green	0.10	0.17	0.17	0.19	0.27	0.27	0.13	0.39	0.39	0.02	0.27	0.27
Sat Flow, veh/h	1757	1881	1568	3476	1863	1594	1707	3471	1583	1810	3539	1568
Grp Volume(v), veh/h	148	229	188	589	204	26	191	859	553	31	852	131
Grp Sat Flow(s),veh/h/ln	1757	1881	1568	1738	1863	1594	1707	1736	1583	1810	1770	1568
Q Serve(g_s), s	7.6	10.6	0.0	15.1	8.3	1.1	10.1	18.6	3.6	1.6	21.3	2.8
Cycle Q Clear(g_c), s	7.6	10.6	0.0	15.1	8.3	1.1	10.1	18.6	3.6	1.6	21.3	2.8
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	182	315	467	675	501	429	223	1340	919	43	950	584
V/C Ratio(X)	0.81	0.73	0.40	0.87	0.41	0.06	0.86	0.64	0.60	0.72	0.90	0.22
Avail Cap(c_a), veh/h	306	491	614	707	541	463	226	1340	919	98	966	591
HCM Platoon Ratio	1.00	1.00	1.00	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	40.3	36.3	25.7	35.9	27.6	25.0	39.1	23.0	4.0	44.6	32.4	7.2
Incr Delay (d2), s/veh	8.4	6.7	1.2	11.2	1.1	0.1	26.1	1.5	1.7	20.0	11.5	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	4.1	6.1	3.9	8.3	4.4	0.5	6.3	9.1	5.2	1.0	11.9	1.2
LnGrp Delay(d),s/veh	48.7	42.9	26.9	47.2	28.7	25.1	65.3	24.5	5.7	64.6	43.9	7.7
LnGrp LOS	D	D	C	D	C	C	E	C	A	E	D	A
Approach Vol, veh/h		565			819			1603			1014	
Approach Delay, s/veh		39.1			41.9			22.9			39.9	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	41.0	23.4	20.9	17.5	30.2	14.0	30.2
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	32.3	18.7	* 24	12.2	* 25	16.0	26.7
Max Q Clear Time (g_c+I1), s	3.6	20.6	17.1	12.6	12.1	23.3	9.6	10.3
Green Ext Time (p_c), s	0.0	9.3	0.8	2.8	0.0	1.4	0.2	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	33.4
HCM 2010 LOS	C

Notes

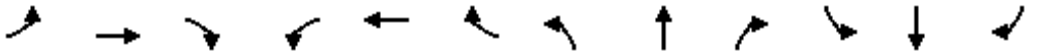


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	23	298	118	24	23	301	1678	98	64	1789	143
Future Volume (veh/h)	159	23	298	118	24	23	301	1678	98	64	1789	143
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1845	1759	1900	1827	1864	1900	1845	1864	1900
Adj Flow Rate, veh/h	166	24	310	123	25	24	314	1748	102	67	1864	149
Adj No. of Lanes	1	1	2	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	2	3	8	0	4	2	2	3	2	2
Cap, veh/h	191	111	1145	148	62	57	610	3323	194	85	1758	140
Arrive On Green	0.11	0.06	0.06	0.08	0.04	0.04	0.70	1.00	1.00	0.05	0.37	0.37
Sat Flow, veh/h	1740	1827	2787	1757	1759	1615	1740	4918	287	1757	4801	382
Grp Volume(v), veh/h	166	24	310	123	25	24	314	1205	645	67	1315	698
Grp Sat Flow(s),veh/h/ln	1740	1827	1393	1757	1759	1615	1740	1696	1813	1757	1696	1790
Q Serve(g_s), s	12.2	1.6	1.9	9.0	1.8	1.9	11.0	0.0	0.0	4.9	47.6	47.6
Cycle Q Clear(g_c), s	12.2	1.6	1.9	9.0	1.8	1.9	11.0	0.0	0.0	4.9	47.6	47.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		0.21
Lane Grp Cap(c), veh/h	191	111	1145	148	62	57	610	2292	1225	85	1242	656
V/C Ratio(X)	0.87	0.22	0.27	0.83	0.41	0.42	0.52	0.53	0.53	0.78	1.06	1.06
Avail Cap(c_a), veh/h	233	427	1628	230	406	373	610	2292	1225	143	1242	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.66	0.66	0.66	0.61	0.61	0.61
Uniform Delay (d), s/veh	56.9	58.1	12.9	58.6	61.4	61.4	14.3	0.0	0.0	61.2	41.2	41.2
Incr Delay (d2), s/veh	24.1	1.0	0.1	13.7	4.2	5.0	0.5	0.6	1.1	9.3	37.6	46.5
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	7.1	0.8	2.5	4.9	1.0	0.9	5.1	0.2	0.4	2.6	28.8	32.0
LnGrp Delay(d),s/veh	81.1	59.1	13.1	72.3	65.6	66.4	14.8	0.6	1.1	70.4	78.8	87.7
LnGrp LOS	F	E	B	E	E	E	B	A	A	E	F	F
Approach Vol, veh/h		500			172			2164			2080	
Approach Delay, s/veh		37.9			70.5			2.8			81.5	
Approach LOS		D			E			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	92.8	15.0	11.9	50.6	52.6	18.3	8.6
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	5.0	* 5	4.0	4.0
Max Green Setting (Gmax), s	10.6	55.0	17.0	30.4	18.0	* 48	17.4	30.0
Max Q Clear Time (g_c+I1), s	6.9	2.0	11.0	3.9	13.0	49.6	14.2	3.9
Green Ext Time (p_c), s	0.0	41.5	0.1	1.6	0.7	0.0	0.1	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	42.0
HCM 2010 LOS	D

Notes

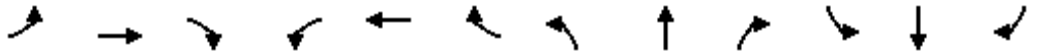


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	0	550	603	200	490	570	1363	418	0	1963	261
Future Volume (veh/h)	245	0	550	603	200	490	570	1363	418	0	1963	261
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1881	1863	1881	1776	1900	1863	1845	0	1810	1900
Adj Flow Rate, veh/h	255	0	573	628	208	510	594	1420	435	0	2045	272
Adj No. of Lanes	1	0	1	2	1	2	2	3	1	0	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	1	2	1	7	0	2	3	0	5	0
Cap, veh/h	155	0	0	1148	394	557	636	2955	911	0	1740	569
Arrive On Green	0.09	0.00	0.00	0.33	0.21	0.21	0.36	1.00	1.00	0.00	0.70	0.70
Sat Flow, veh/h	1810	255		3442	1881	2656	3510	5085	1568	0	5103	1615
Grp Volume(v), veh/h	255	379.2		628	208	510	594	1420	435	0	2045	272
Grp Sat Flow(s),veh/h/ln	1810	F		1721	1881	1328	1755	1695	1568	0	1647	1615
Q Serve(g_s), s	11.1			19.3	12.8	24.4	21.2	0.0	0.0	0.0	45.8	7.2
Cycle Q Clear(g_c), s	11.1			19.3	12.8	24.4	21.2	0.0	0.0	0.0	45.8	7.2
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	155			1148	394	557	636	2955	911	0	1740	569
V/C Ratio(X)	1.65			0.55	0.53	0.92	0.93	0.48	0.48	0.00	1.18	0.48
Avail Cap(c_a), veh/h	155			1459	564	797	636	2955	911	0	1740	569
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	2.00
Upstream Filter(I)	1.00			1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.69	0.69
Uniform Delay (d), s/veh	59.5			35.3	45.6	50.2	40.7	0.0	0.0	0.0	19.2	7.6
Incr Delay (d2), s/veh	319.8			0.2	0.4	9.5	20.8	0.6	1.8	0.0	83.3	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
%ile BackOfQ(50%),veh/ln	19.3			9.2	6.7	9.7	12.1	0.2	0.5	0.0	33.4	3.4
LnGrp Delay(d),s/veh	379.2			35.5	46.1	59.7	61.5	0.6	1.8	0.0	102.5	9.6
LnGrp LOS	F			D	D	E	E	A	A		F	A
Approach Vol, veh/h					1346			2449			2317	
Approach Delay, s/veh					46.3			15.6			91.6	
Approach LOS					D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		81.7	48.3		29.7	52.0	15.7	32.6
Change Period (Y+Rc), s		6.2	4.9		6.2	* 6.2	4.6	5.3
Max Green Setting (Gmax), s		63.8	55.1		13.3	* 46	11.1	39.0
Max Q Clear Time (g_c+I1), s		2.0	21.3		23.2	47.8	13.1	26.4
Green Ext Time (p_c), s		5.8	0.5		0.0	0.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	64.3
HCM 2010 LOS	E

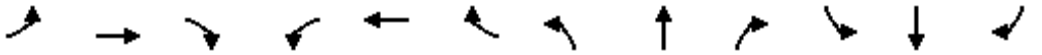
Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	23	97	46	10	42	107	432	58	40	523	81
Future Volume (veh/h)	58	23	97	46	10	42	107	432	58	40	523	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1771	1810	1900	1729	1900	1792	1803	1900	1597	1863	1863
Adj Flow Rate, veh/h	64	25	107	51	11	46	118	475	64	44	575	89
Adj No. of Lanes	0	1	1	0	1	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	26	26	5	0	0	0	6	5	5	19	2	2
Cap, veh/h	85	19	545	90	10	572	148	643	87	61	684	568
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.09	0.41	0.41	0.04	0.37	0.37
Sat Flow, veh/h	0	53	1536	0	29	1613	1707	1556	210	1521	1863	1548
Grp Volume(v), veh/h	89	0	107	62	0	46	118	0	539	44	575	89
Grp Sat Flow(s),veh/h/ln	53	0	1536	29	0	1613	1707	0	1766	1521	1863	1548
Q Serve(g_s), s	0.0	0.0	3.5	0.0	0.0	1.4	5.0	0.0	18.8	2.1	20.6	2.8
Cycle Q Clear(g_c), s	25.9	0.0	3.5	25.9	0.0	1.4	5.0	0.0	18.8	2.1	20.6	2.8
Prop In Lane	0.72		1.00	0.82		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	104	0	545	100	0	572	148	0	730	61	684	568
V/C Ratio(X)	0.86	0.00	0.20	0.62	0.00	0.08	0.80	0.00	0.74	0.72	0.84	0.16
Avail Cap(c_a), veh/h	104	0	545	100	0	572	161	0	730	115	719	598
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	0.0	16.3	32.3	0.0	15.7	32.7	0.0	18.1	34.6	21.2	15.5
Incr Delay (d2), s/veh	47.4	0.0	0.2	11.8	0.0	0.1	23.1	0.0	5.3	16.5	10.2	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	3.1	0.0	1.5	1.6	0.0	0.6	3.3	0.0	10.2	1.2	12.5	1.3
LnGrp Delay(d),s/veh	78.5	0.0	16.5	44.1	0.0	15.7	55.8	0.0	23.4	51.1	31.4	15.9
LnGrp LOS	E		B	D		B	E		C	D	C	B
Approach Vol, veh/h		196			108			657			708	
Approach Delay, s/veh		44.7			32.0			29.2			30.6	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.1	35.6		30.4	10.4	32.2		30.4
Change Period (Y+Rc), s	4.1	5.4		4.5	4.1	5.4		4.5
Max Green Setting (Gmax), s	5.5	29.6		25.9	6.9	28.2		25.9
Max Q Clear Time (g_c+I1), s	4.1	20.8		27.9	7.0	22.6		27.9
Green Ext Time (p_c), s	0.0	7.0		0.0	0.0	4.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	279	733	14	22	723	504	43	15	22	450	24	273
Future Volume (veh/h)	279	733	14	22	723	504	43	15	22	450	24	273
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1882	1900	1810	1881	1827	1900	1846	1900	1881	1875	1863
Adj Flow Rate, veh/h	297	780	15	23	769	0	46	16	23	498	0	290
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	2	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	5	1	4	0	0	0	1	4	2
Cap, veh/h	334	1614	31	33	1011	439	138	52	75	866	0	381
Arrive On Green	0.19	0.45	0.45	0.02	0.28	0.00	0.08	0.08	0.08	0.24	0.00	0.24
Sat Flow, veh/h	1792	3588	69	1723	3574	1553	1810	679	976	3583	0	1575
Grp Volume(v), veh/h	297	389	406	23	769	0	46	0	39	498	0	290
Grp Sat Flow(s),veh/h/ln	1792	1787	1869	1723	1787	1553	1810	0	1655	1792	0	1575
Q Serve(g_s), s	14.8	14.0	14.0	1.2	18.0	0.0	2.2	0.0	2.0	11.2	0.0	15.7
Cycle Q Clear(g_c), s	14.8	14.0	14.0	1.2	18.0	0.0	2.2	0.0	2.0	11.2	0.0	15.7
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	334	804	841	33	1011	439	138	0	126	866	0	381
V/C Ratio(X)	0.89	0.48	0.48	0.69	0.76	0.00	0.33	0.00	0.31	0.57	0.00	0.76
Avail Cap(c_a), veh/h	381	804	841	109	1053	457	138	0	126	1251	0	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.4	17.7	17.7	44.7	30.0	0.0	40.1	0.0	40.0	30.6	0.0	32.3
Incr Delay (d2), s/veh	20.3	1.6	1.6	22.4	4.8	0.0	6.4	0.0	6.2	0.9	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	9.2	7.3	7.6	0.8	9.5	0.0	1.3	0.0	1.2	5.6	0.0	7.3
LnGrp Delay(d),s/veh	56.7	19.4	19.3	67.0	34.8	0.0	46.5	0.0	46.3	31.5	0.0	37.3
LnGrp LOS	E	B	B	E	C		D		D	C		D
Approach Vol, veh/h		1092			792			85			788	
Approach Delay, s/veh		29.5			35.7			46.4			33.6	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.0	6.3	46.2		27.2	21.6	30.9
Change Period (Y+Rc), s		5.0	4.5	5.0		5.0	4.5	5.0
Max Green Setting (Gmax), s		7.0	5.8	40.7		32.0	19.5	27.0
Max Q Clear Time (g_c+I1), s		4.2	3.2	16.0		17.7	16.8	20.0
Green Ext Time (p_c), s		0.1	0.0	20.6		4.0	0.3	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	33.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	195	335	354	174	4	356	3	159	3	2	11
Future Volume (veh/h)	6	195	335	354	174	4	356	3	159	3	2	11
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1787	1810	1863	1795	1900	1900	1828	1792	1900	1900	1900
Adj Flow Rate, veh/h	7	241	0	437	215	5	440	4	196	4	2	14
Adj No. of Lanes	0	1	1	1	1	0	0	1	1	0	1	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	6	6	5	2	6	6	0	0	6	0	0	0
Cap, veh/h	56	786	684	595	777	18	520	5	459	23	11	80
Arrive On Green	0.44	0.44	0.00	0.44	0.44	0.44	0.30	0.30	0.30	0.07	0.07	0.07
Sat Flow, veh/h	13	1767	1538	1134	1747	41	1726	16	1524	335	168	1173
Grp Volume(v), veh/h	248	0	0	437	0	220	444	0	196	20	0	0
Grp Sat Flow(s),veh/h/ln	1779	0	1538	1134	0	1788	1741	0	1524	1676	0	0
Q Serve(g_s), s	0.0	0.0	0.0	19.7	0.0	5.7	17.4	0.0	7.5	0.8	0.0	0.0
Cycle Q Clear(g_c), s	6.5	0.0	0.0	26.2	0.0	5.7	17.4	0.0	7.5	0.8	0.0	0.0
Prop In Lane	0.03		1.00	1.00		0.02	0.99		1.00	0.20		0.70
Lane Grp Cap(c), veh/h	843	0	684	595	0	795	524	0	459	115	0	0
V/C Ratio(X)	0.29	0.00	0.00	0.73	0.00	0.28	0.85	0.00	0.43	0.17	0.00	0.00
Avail Cap(c_a), veh/h	1085	0	897	752	0	1042	693	0	606	115	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	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.0	0.0	0.0	18.7	0.0	12.8	23.9	0.0	20.4	32.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	2.8	0.0	0.2	7.5	0.0	0.6	0.7	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	3.2	0.0	0.0	8.5	0.0	2.9	9.5	0.0	3.2	0.4	0.0	0.0
LnGrp Delay(d),s/veh	13.2	0.0	0.0	21.5	0.0	13.0	31.3	0.0	21.1	32.7	0.0	0.0
LnGrp LOS	B			C		B	C		C	C		
Approach Vol, veh/h		248			657			640			20	
Approach Delay, s/veh		13.2			18.6			28.2			32.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		26.5		36.9		9.5		36.9
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		29.0		42.5		5.0		42.5
Max Q Clear Time (g_c+I1), s		19.4		8.5		2.8		28.2
Green Ext Time (p_c), s		2.5		5.4		0.0		4.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.9
HCM 2010 LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	25	66	748	20	44	670
Future Volume (veh/h)	25	66	748	20	44	670
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1846	1900	1696	1827
Adj Flow Rate, veh/h	26	69	779	21	46	698
Adj No. of Lanes	0	0	1	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	3	3	12	4
Cap, veh/h	38	102	1198	32	452	1223
Arrive On Green	0.09	0.09	0.67	0.67	0.67	0.67
Sat Flow, veh/h	451	1198	1789	48	616	1827
Grp Volume(v), veh/h	96	0	0	800	46	698
Grp Sat Flow(s),veh/h/ln	1666	0	0	1838	616	1827
Q Serve(g_s), s	2.1	0.0	0.0	9.3	1.7	7.5
Cycle Q Clear(g_c), s	2.1	0.0	0.0	9.3	11.1	7.5
Prop In Lane	0.27	0.72		0.03	1.00	
Lane Grp Cap(c), veh/h	142	0	0	1230	452	1223
V/C Ratio(X)	0.68	0.00	0.00	0.65	0.10	0.57
Avail Cap(c_a), veh/h	818	0	0	1654	594	1645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	0.0	3.5	6.8	3.2
Incr Delay (d2), s/veh	5.5	0.0	0.0	0.6	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	4.6	0.3	3.8
LnGrp Delay(d),s/veh	21.8	0.0	0.0	4.1	6.9	3.7
LnGrp LOS	C			A	A	A
Approach Vol, veh/h	96		800			744
Approach Delay, s/veh	21.8		4.1			3.9
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		29.0				29.0		7.6
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		33.0				33.0		18.0
Max Q Clear Time (g_c+I1), s		11.3				13.1		4.1
Green Ext Time (p_c), s		12.1				11.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	5.0
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	29	130	69	11	4	106	181	48	7	181	57
Future Volume (veh/h)	87	29	130	69	11	4	106	181	48	7	181	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1858	1881	1900	1869	1900	1900	1851	1900	1900	1845	1827
Adj Flow Rate, veh/h	143	48	213	113	18	7	174	297	79	11	297	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Percent Heavy Veh, %	0	0	1	0	0	0	0	2	2	0	3	4
Cap, veh/h	518	148	473	400	56	14	576	617	164	507	808	680
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.44	0.44	0.44	0.44	0.44	0.00
Sat Flow, veh/h	1122	501	1599	697	189	47	1099	1410	375	1023	1845	1553
Grp Volume(v), veh/h	191	0	213	138	0	0	174	0	376	11	297	0
Grp Sat Flow(s),veh/h/ln	1623	0	1599	933	0	0	1099	0	1785	1023	1845	1553
Q Serve(g_s), s	0.0	0.0	3.7	2.7	0.0	0.0	4.3	0.0	5.1	0.3	3.6	0.0
Cycle Q Clear(g_c), s	2.9	0.0	3.7	5.6	0.0	0.0	7.9	0.0	5.1	5.3	3.6	0.0
Prop In Lane	0.75		1.00	0.82		0.05	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	667	0	473	470	0	0	576	0	782	507	808	680
V/C Ratio(X)	0.29	0.00	0.45	0.29	0.00	0.00	0.30	0.00	0.48	0.02	0.37	0.00
Avail Cap(c_a), veh/h	1210	0	1064	912	0	0	1021	0	1504	921	1555	1309
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.4	0.0	9.7	10.9	0.0	0.0	9.0	0.0	6.8	8.7	6.4	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.7	0.3	0.0	0.0	0.3	0.0	0.5	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	1.4	0.0	1.7	1.2	0.0	0.0	1.3	0.0	2.5	0.1	1.9	0.0
LnGrp Delay(d),s/veh	9.6	0.0	10.3	11.3	0.0	0.0	9.3	0.0	7.2	8.7	6.6	0.0
LnGrp LOS	A		B	B			A		A	A	A	
Approach Vol, veh/h		404			138			550			308	
Approach Delay, s/veh		10.0			11.3			7.9			6.7	
Approach LOS		A			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		19.3		14.5		19.3		14.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		28.5		22.5		28.5		22.5
Max Q Clear Time (g_c+I1), s		9.9		5.7		7.3		7.6
Green Ext Time (p_c), s		4.9		2.6		5.1		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A

HCS 2010 Two-Way Stop Control Summary Report

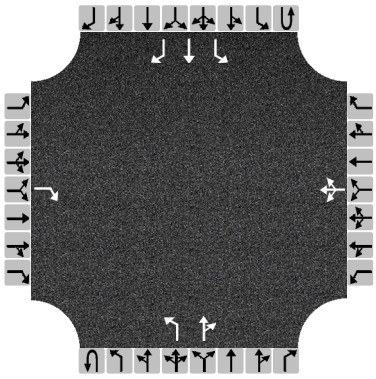
General Information

Analyst	NDD
Agency/Co.	Loomis
Date Performed	12/11/2018
Analysis Year	2020
Time Analyzed	Short Term plus Project
Intersection Orientation	North-South
Project Description	Loomis Costco

Site Information

Intersection	Taylor Road/Webb Street
Jurisdiction	Loomis
East/West Street	Webb Street
North/South Street	Taylor Road
Peak Hour Factor	0.73
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	1	0	0	1	1	0	0	1	1	1
Configuration				R			LTR			L		TR		L	T	R
Volume (veh/h)				176		9	2	19		136	690	5		5	798	8
Percent Heavy Vehicles				4		22	0	5		1				7		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				241			41			186				7		
Capacity				258			3			636				703		
v/c Ratio				0.93			15.54			0.29				0.01		
95% Queue Length				8.5			7.0			1.2				0.0		
Control Delay (s/veh)				82.1			9141.2			13.0				10.2		
Level of Service (LOS)				F			F			B				B		
Approach Delay (s/veh)	82.1				9141.2				2.1				0.1			
Approach LOS	F				F											

HCS 2010 Two-Way Stop Control Summary Report

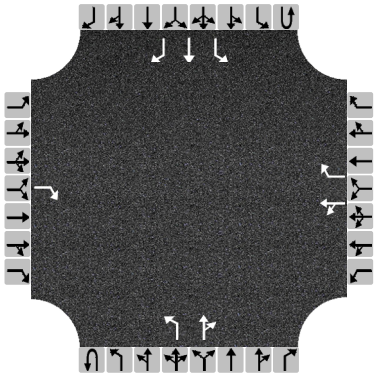
General Information

Analyst	NDD
Agency/Co.	Loomis
Date Performed	12/11/2018
Analysis Year	2020
Time Analyzed	Short Term plus Project
Intersection Orientation	North-South
Project Description	Loomis Costco

Site Information

Intersection	Taylor Road/Webb Street
Jurisdiction	Loomis
East/West Street	Webb Street
North/South Street	Taylor Road
Peak Hour Factor	0.73
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	1	1	0	1	1	0	0	1	1	1
Configuration				R		LT		R		L		TR		L	T	R
Volume (veh/h)				184		9	2	19		144	728	5		5	838	8
Percent Heavy Vehicles				4		22	0	5		1				7		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				252		15		26		197				7		
Capacity				240		90		292		606				671		
v/c Ratio				1.05		0.17		0.09		0.32				0.01		
95% Queue Length				10.5		0.6		0.3		1.4				0.0		
Control Delay (s/veh)				116.8		52.9		18.6		13.8				10.4		
Level of Service (LOS)				F		F		C		B				B		
Approach Delay (s/veh)	116.8								2.3				0.1			
Approach LOS	F															

Project Driveway Option B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	24	241	159	42	28	265	804	123	89	1301	95
Future Volume (veh/h)	108	24	241	159	42	28	265	804	123	89	1301	95
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1727	1743	1638	1727	1746	1900	1792	1789	1900	1743	1846	1900
Adj Flow Rate, veh/h	112	25	251	166	44	29	276	838	128	93	1355	99
Adj No. of Lanes	1	1	2	2	1	0	1	3	0	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	10	9	16	10	10	10	6	7	7	9	3	3
Cap, veh/h	135	140	1146	219	66	43	661	2740	416	115	1502	110
Arrive On Green	0.08	0.08	0.08	0.07	0.07	0.07	0.77	1.00	1.00	0.07	0.31	0.31
Sat Flow, veh/h	1645	1743	2450	3191	984	648	1707	4280	650	1660	4788	350
Grp Volume(v), veh/h	112	25	251	166	0	73	276	636	330	93	951	503
Grp Sat Flow(s),veh/h/ln	1645	1743	1225	1596	0	1632	1707	1628	1674	1660	1680	1778
Q Serve(g_s), s	8.0	1.6	1.4	6.1	0.0	5.2	6.5	0.0	0.0	6.6	32.5	32.5
Cycle Q Clear(g_c), s	8.0	1.6	1.4	6.1	0.0	5.2	6.5	0.0	0.0	6.6	32.5	32.5
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.39	1.00		0.20
Lane Grp Cap(c), veh/h	135	140	1146	219	0	109	661	2084	1072	115	1054	558
V/C Ratio(X)	0.83	0.18	0.22	0.76	0.00	0.67	0.42	0.31	0.31	0.81	0.90	0.90
Avail Cap(c_a), veh/h	156	439	1566	298	0	408	661	2084	1072	190	1064	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.94	0.94	0.94	0.78	0.78	0.78
Uniform Delay (d), s/veh	54.3	51.5	9.1	54.9	0.0	54.7	9.0	0.0	0.0	55.1	39.4	39.4
Incr Delay (d2), s/veh	26.9	0.6	0.1	7.4	0.0	6.9	0.4	0.4	0.7	9.9	10.0	16.8
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	4.7	0.8	1.7	2.9	0.0	2.6	3.0	0.1	0.2	3.4	16.5	18.5
LnGrp Delay(d),s/veh	81.1	52.1	9.2	62.2	0.0	61.6	9.4	0.4	0.7	65.0	49.4	56.2
LnGrp LOS	F	D	A	E		E	A	A	A	E	D	E
Approach Vol, veh/h		388			239			1242			1547	
Approach Delay, s/veh		32.7			62.0			2.5			52.6	
Approach LOS		C			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	81.8	12.2	13.6	51.5	42.6	13.8	12.0
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	5.0	* 5	4.0	4.0
Max Green Setting (Gmax), s	13.7	47.9	11.2	30.2	23.6	* 38	11.4	30.0
Max Q Clear Time (g_c+I1), s	8.6	2.0	8.1	3.6	8.5	34.5	10.0	7.2
Green Ext Time (p_c), s	0.1	17.7	0.1	1.6	9.2	3.1	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.8
HCM 2010 LOS	C

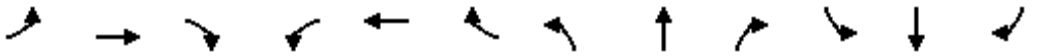
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	0	307	556	137	480	418	1639	392	0	2008	209
Future Volume (veh/h)	200	0	307	556	137	480	418	1639	392	0	2008	209
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1863	1845	1863	1810	1881	1845	1863	0	1792	1881
Adj Flow Rate, veh/h	213	0	327	591	146	511	445	1744	417	0	2136	222
Adj No. of Lanes	1	0	1	2	1	2	2	3	1	0	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	2	3	2	5	1	3	2	0	6	1
Cap, veh/h	165	0	0	1135	382	555	586	2948	927	0	1817	594
Arrive On Green	0.09	0.00	0.00	0.33	0.20	0.20	0.34	1.00	1.00	0.00	0.74	0.74
Sat Flow, veh/h	1810	213		3408	1863	2707	3476	5036	1583	0	5055	1599
Grp Volume(v), veh/h	213	230.4		591	146	511	445	1744	417	0	2136	222
Grp Sat Flow(s),veh/h/ln	1810	F		1704	1863	1354	1738	1679	1583	0	1631	1599
Q Serve(g_s), s	12.4			19.0	9.2	25.2	15.5	0.0	0.0	0.0	50.5	4.9
Cycle Q Clear(g_c), s	12.4			19.0	9.2	25.2	15.5	0.0	0.0	0.0	50.5	4.9
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	165			1135	382	555	586	2948	927	0	1817	594
V/C Ratio(X)	1.29			0.52	0.38	0.92	0.76	0.59	0.45	0.00	1.18	0.37
Avail Cap(c_a), veh/h	165			1413	534	776	586	2948	927	0	1817	594
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	2.00
Upstream Filter(I)	1.00			1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.67	0.67
Uniform Delay (d), s/veh	61.8			36.6	46.6	53.0	42.6	0.0	0.0	0.0	17.5	6.3
Incr Delay (d2), s/veh	168.6			0.1	0.2	10.8	5.2	0.9	1.6	0.0	83.2	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
%ile BackOfQ(50%),veh/ln	13.9			9.0	4.8	10.3	7.8	0.2	0.4	0.0	35.9	2.3
LnGrp Delay(d),s/veh	230.4			36.7	46.9	63.8	47.8	0.9	1.6	0.0	100.7	7.5
LnGrp LOS	F			D	D	E	D	A	A		F	A
Approach Vol, veh/h					1248			2606			2358	
Approach Delay, s/veh					49.0			9.0			92.0	
Approach LOS					D			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		85.8	50.2		29.1	56.7	17.0	33.2
Change Period (Y+Rc), s		6.2	4.9		6.2	* 6.2	4.6	5.3
Max Green Setting (Gmax), s		68.5	56.4		13.3	* 51	12.4	39.0
Max Q Clear Time (g_c+I1), s		2.0	21.0		17.5	52.5	14.4	27.2
Green Ext Time (p_c), s		7.7	0.4		0.0	0.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	54.6
HCM 2010 LOS	D

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	155	27	298	174	28	23	301	1619	157	64	1733	139
Future Volume (vph)	155	27	298	174	28	23	301	1619	157	64	1733	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	1.00	0.88	0.97	1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.93		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1827	2787	3400	1697		1736	5016		1752	5027	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1736	1827	2787	3400	1697		1736	5016		1752	5027	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	161	28	310	181	29	24	314	1686	164	67	1805	145
RTOR Reduction (vph)	0	0	37	0	23	0	0	7	0	0	5	0
Lane Group Flow (vph)	161	28	273	181	30	0	314	1843	0	67	1945	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	4%	4%	2%	3%	8%	0%	4%	2%	1%	3%	2%	1%
Turn Type	Prot	NA	pm+ov	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	15.5	8.7	33.3	14.5	7.7		24.6	76.1		13.7	65.2	
Effective Green, g (s)	15.5	8.7	33.3	14.5	7.7		24.6	76.1		13.7	65.2	
Actuated g/C Ratio	0.12	0.07	0.26	0.11	0.06		0.19	0.59		0.11	0.50	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	206	122	713	379	100		328	2936		184	2521	
v/s Ratio Prot	c0.09	0.02	c0.07	0.05	0.02		c0.18	0.37		0.04	c0.39	
v/s Ratio Perm			0.03									
v/c Ratio	0.78	0.23	0.38	0.48	0.30		0.96	0.63		0.36	0.77	
Uniform Delay, d1	55.6	57.5	39.9	54.2	58.6		52.2	17.7		54.1	26.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.05	0.84		1.00	1.00	
Incremental Delay, d2	17.3	1.0	0.3	1.0	1.7		33.0	0.8		1.2	2.4	
Delay (s)	72.9	58.4	40.2	55.1	60.3		87.8	15.6		55.3	28.7	
Level of Service	E	E	D	E	E		F	B		E	C	
Approach Delay (s)		51.8			56.3			26.1			29.6	
Approach LOS		D			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	0	550	603	200	490	570	1363	418	0	1963	261
Future Volume (veh/h)	245	0	550	603	200	490	570	1363	418	0	1963	261
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1881	1863	1881	1776	1900	1863	1845	0	1810	1900
Adj Flow Rate, veh/h	255	0	573	628	208	510	594	1420	435	0	2045	272
Adj No. of Lanes	1	0	1	2	1	2	2	3	1	0	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	1	2	1	7	0	2	3	0	5	0
Cap, veh/h	173	0	0	1182	394	557	663	2904	895	0	1653	540
Arrive On Green	0.10	0.00	0.00	0.34	0.21	0.21	0.38	1.00	1.00	0.00	0.67	0.67
Sat Flow, veh/h	1810	255		3442	1881	2656	3510	5085	1568	0	5103	1615
Grp Volume(v), veh/h	255	302.1		628	208	510	594	1420	435	0	2045	272
Grp Sat Flow(s),veh/h/ln	1810	F		1721	1881	1328	1755	1695	1568	0	1647	1615
Q Serve(g_s), s	12.4			19.0	12.8	24.4	20.7	0.0	0.0	0.0	43.5	8.0
Cycle Q Clear(g_c), s	12.4			19.0	12.8	24.4	20.7	0.0	0.0	0.0	43.5	8.0
Prop In Lane	1.00			1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	173			1182	394	557	663	2904	895	0	1653	540
V/C Ratio(X)	1.48			0.53	0.53	0.92	0.90	0.49	0.49	0.00	1.24	0.50
Avail Cap(c_a), veh/h	173			1493	564	797	663	2904	895	0	1653	540
HCM Platoon Ratio	1.00			1.00	1.00	1.00	2.00	2.00	2.00	1.00	2.00	2.00
Upstream Filter(I)	1.00			1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.67	0.67
Uniform Delay (d), s/veh	58.8			34.3	45.6	50.2	39.3	0.0	0.0	0.0	21.5	8.6
Incr Delay (d2), s/veh	243.3			0.1	0.4	9.5	14.5	0.6	1.9	0.0	110.4	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
%ile BackOfQ(50%),veh/ln	17.9			9.1	6.7	9.7	11.2	0.2	0.5	0.0	35.9	3.8
LnGrp Delay(d),s/veh	302.1			34.4	46.1	59.7	53.7	0.6	1.9	0.0	131.9	10.9
LnGrp LOS	F			C	D	E	D	A	A		F	B
Approach Vol, veh/h					1346			2449			2317	
Approach Delay, s/veh					45.8			13.7			117.7	
Approach LOS					D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		80.4	49.6		30.7	49.7	17.0	32.6
Change Period (Y+Rc), s		6.2	4.9		6.2	* 6.2	4.6	5.3
Max Green Setting (Gmax), s		62.5	56.4		14.3	* 44	12.4	39.0
Max Q Clear Time (g_c+I1), s		2.0	21.0		22.7	45.5	14.4	26.4
Green Ext Time (p_c), s		5.8	0.5		0.0	0.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	69.9
HCM 2010 LOS	E

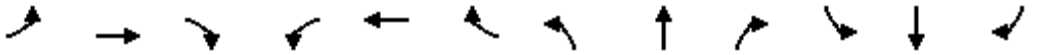
Notes

Project Driveway Option C

See Option A or B as noted in study

Cumulative Conditions – Long Term Plus Project with Mitigation Measures

Project Driveway Option A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	220	266	533	170	35	179	753	546	40	769	40
Future Volume (veh/h)	80	220	266	533	170	35	179	753	546	40	769	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1881	1845	1881	1863	1900	1792	1827	1863	1900	1863	1845
Adj Flow Rate, veh/h	85	234	283	567	181	37	190	801	581	43	818	43
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	1	3	1	2	0	6	4	2	0	2	3
Cap, veh/h	109	390	531	637	612	524	225	1258	864	55	924	507
Arrive On Green	0.06	0.21	0.21	0.18	0.33	0.33	0.13	0.36	0.36	0.03	0.26	0.26
Sat Flow, veh/h	1757	1881	1568	3476	1863	1595	1707	3471	1583	1810	3539	1568
Grp Volume(v), veh/h	85	234	283	567	181	37	190	801	581	43	818	43
Grp Sat Flow(s),veh/h/ln	1757	1881	1568	1738	1863	1595	1707	1736	1583	1810	1770	1568
Q Serve(g_s), s	4.4	10.4	13.4	14.7	6.7	1.5	10.0	17.6	24.3	2.2	20.5	1.8
Cycle Q Clear(g_c), s	4.4	10.4	13.4	14.7	6.7	1.5	10.0	17.6	24.3	2.2	20.5	1.8
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	109	390	531	637	612	524	225	1258	864	55	924	507
V/C Ratio(X)	0.78	0.60	0.53	0.89	0.30	0.07	0.85	0.64	0.67	0.79	0.89	0.08
Avail Cap(c_a), veh/h	181	469	597	659	626	536	305	1298	882	98	924	507
HCM Platoon Ratio	1.00	1.00	1.00	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	42.7	33.1	24.6	36.8	23.0	21.3	39.1	24.4	15.0	44.4	32.8	21.7
Incr Delay (d2), s/veh	11.4	3.2	1.8	13.9	0.6	0.1	14.8	1.5	2.7	21.3	10.9	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	2.5	5.7	6.1	8.2	3.5	0.7	5.7	8.7	11.1	1.4	11.4	0.8
LnGrp Delay(d),s/veh	54.1	36.3	26.4	50.7	23.6	21.4	53.9	25.8	17.7	65.7	43.6	21.9
LnGrp LOS	D	D	C	D	C	C	D	C	B	E	D	C
Approach Vol, veh/h		602			785			1572			904	
Approach Delay, s/veh		34.1			43.1			26.2			43.6	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	38.9	21.4	24.6	16.6	29.6	10.2	35.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	34.5	17.5	23.0	16.5	23.0	9.5	31.0
Max Q Clear Time (g_c+I1), s	4.2	26.3	16.7	15.4	12.0	22.5	6.4	8.7
Green Ext Time (p_c), s	0.0	7.1	0.2	3.7	0.2	0.5	0.0	7.3

Intersection Summary	
HCM 2010 Ctrl Delay	35.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	340	636	348	145	5	1025	10	363	5	5	15
Future Volume (veh/h)	5	340	636	348	145	5	1025	10	363	5	5	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1624	1792	1810	1863	1796	1900	1827	1795	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	420	0	430	179	6	1265	12	448	6	6	19
Adj No. of Lanes	1	1	1	1	1	0	2	1	0	1	1	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	17	6	5	2	6	6	4	0	0	0	0	0
Cap, veh/h	12	412	354	408	781	26	1262	15	558	47	10	33
Arrive On Green	0.01	0.23	0.00	0.23	0.45	0.45	0.37	0.37	0.37	0.03	0.03	0.03
Sat Flow, veh/h	1547	1792	1538	1774	1728	58	3375	40	1492	1810	402	1273
Grp Volume(v), veh/h	6	420	0	430	0	185	1265	0	460	6	0	25
Grp Sat Flow(s),veh/h/ln	1547	1792	1538	1774	0	1786	1688	0	1532	1810	0	1675
Q Serve(g_s), s	0.5	29.5	0.0	29.5	0.0	8.1	48.0	0.0	34.5	0.4	0.0	1.9
Cycle Q Clear(g_c), s	0.5	29.5	0.0	29.5	0.0	8.1	48.0	0.0	34.5	0.4	0.0	1.9
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.97	1.00		0.76
Lane Grp Cap(c), veh/h	12	412	354	408	0	807	1262	0	573	47	0	44
V/C Ratio(X)	0.52	1.02	0.00	1.05	0.00	0.23	1.00	0.00	0.80	0.13	0.00	0.57
Avail Cap(c_a), veh/h	60	412	354	408	0	807	1262	0	573	70	0	65
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	63.5	49.4	0.0	49.4	0.0	21.5	40.2	0.0	35.9	61.1	0.0	61.8
Incr Delay (d2), s/veh	31.4	49.4	0.0	59.7	0.0	0.1	25.8	0.0	8.1	1.2	0.0	11.3
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	20.2	0.0	21.1	0.0	4.0	26.8	0.0	15.9	0.2	0.0	1.0
LnGrp Delay(d),s/veh	94.8	98.8	0.0	109.1	0.0	21.6	66.0	0.0	44.0	62.3	0.0	73.1
LnGrp LOS	F	F		F		C	F		D	E		E
Approach Vol, veh/h		426			615			1725			31	
Approach Delay, s/veh		98.7			82.8			60.1			71.0	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		52.5	34.0	34.0		7.8	5.5	62.5
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		48.0	29.5	29.5		5.0	5.0	54.0
Max Q Clear Time (g_c+I1), s		50.0	31.5	31.5		3.9	2.5	10.1
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	71.1
HCM 2010 LOS	E

Intersection	
Int Delay, s/veh	11.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	149	10	5	20	88	818	5	5	650	10
Future Vol, veh/h	0	0	149	10	5	20	88	818	5	5	650	10
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	-	-	0	-	-	50	100	-	-	100	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	50	4	22	0	5	1	2	0	0	2	13
Mvmt Flow	0	0	204	14	7	27	121	1121	7	7	890	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	890	2269	2269	1124	890	0	0	1127	0	0
Stage 1	-	-	-	1365	1365	-	-	-	-	-	-	-
Stage 2	-	-	-	904	904	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	7.32	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.32	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	3.698	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	339	25	41	246	766	-	-	627	-	-
Stage 1	0	0	-	165	217	-	-	-	-	-	-	-
Stage 2	0	0	-	306	358	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	339	~ 9	34	246	766	-	-	627	-	-
Mov Cap-2 Maneuver	-	-	-	~ 9	34	-	-	-	-	-	-	-
Stage 1	-	-	-	139	183	-	-	-	-	-	-	-
Stage 2	-	-	-	120	354	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.5	$ 428.9	1	0.1
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	766	-	-	339	12	246	627	-	-
HCM Lane V/C Ratio	0.157	-	-	0.602	1.712	0.111	0.011	-	-
HCM Control Delay (s)	10.6	-	-	30.5	$ 972.1	21.5	10.8	-	-
HCM Lane LOS	B	-	-	D	F	C	B	-	-
HCM 95th %tile Q(veh)	0.6	-	-	3.7	3.4	0.4	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Project Driveway Option B

See Option A as noted in study

Project Driveway Option C

See Option A as noted in study

Appendix C: Queuing Summary Tables and Queuing Worksheets (Synchro)

Existing Conditions

Existing Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	200	970	350	280	490	-	65	215	150	95	585	-
2	Taylor Road & Horseshoe Bar Road	100	400	125	190	380	-	-	115	-	-	160	160
3	Horseshoe Bar Road & I-80 Westbound Ramp	85	680	-	160	450	95	-	935	250	275	95	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	2,350	100	-	685	-	-	-	-	-	1,080	-
5	Barton Road & Brace Road	-	2,895	-	-	-	-	-	1,980	-	-	560	-
6	Sierra College Boulevard & Taylor Road	210	550	550	210	1,500	450	150	900	250	215	2,060	215
7	Sierra College Boulevard & Brace Road	-	1,265	-	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	60	230	150
9	Sierra College Boulevard & I-80 WB Ramps	200	1,530	325	-	370	150	530	-	530	740	1,320	740
10	Sierra College Boulevard & I-80 EB Ramps	-	710	280	250	1,530	500	1,315	1,315	205	345	-	330
11	Sierra College Boulevard & Schriber Way	-	395	-	-	300	-	-	-	-	-	-	415
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	90	1,675	45	245	710	340	190	275	-	285	745	185
13	Sierra College Boulevard & Stadium Dwy	215	1,580	-	-	1,690	-	70	-	90	-	-	-
14	Sierra College Boulevard & Rocklin Road	245	650	-	245	1,575	175	240	925	925	315	1,325	-
15	Pacific Street & Dominguez Road/Delmar Avenue	210	1,860	-	200	850	150	-	700	315	-	1,935	140
16	Pacific Street & Rocklin Road	265	420	110	230	410	-	130	285	-	250	330	330
17	Granite Drive & Rocklin Road	100	140	-	325	625	625	225	675	-	135	650	150
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	635	1,165	-	-	580	280	300	555	-
19	I-80 Eastbound Ramps & Rocklin Road	455	1,115	455	-	-	-	170	520	-	-	370	-
20	Aguilar Road & Rocklin Road	320	-	320	-	-	-	75	400	-	85	1,260	-
21	Sierra College Boulevard & Driveway South of Brace Road	135	1,000	-	-	220	-	-	-	60	-	-	-
22	Dominguez Road & Granite Driive	220	1,390	-	-	730	-	370	-	50	-	-	-
23	El Don Drive & Rocklin Road	140	530	-	-	580	95	410	1,260	-	265	1,430	-
24	Sierra College Boulevard & Project Driveway	Does not exist											
25	Brace Road & Project Driveway	Does not exist											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	900	40	-	150	-	-	1900	600	465	2500	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	4500	-	100	1300	-	-	-	-	1450	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	105	1100	210	105	3100	-	-	85	30	-	910	30
29	Taylor Road & English Colony Way-Rock Springs Road	150	1,900	-	140	350	115	-	560	30	-	940	-
30	Taylor Road & Penryn Road (North	85	170	-	-	555	-	55	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	2600	-	85	180	-	-	-	-	495	-	-
32	Taylor Road & Del Oro High School North Lot	-	185	-	70	1600	-	-	-	-	200	-	45
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Drop Off	150	300	-	90	190	-	-	50	-	-	75	-
34	Taylor Road & Del Oro High School South Lot	-	1200	-	150	300	-	-	-	-	65	-	65
35	Taylor Road & Rippey Road	140	465	-	-	610	-	3500	-	-	-	-	-
36	Taylor Road & Webb Street	185	370	-	160	500	105	-	-	1070	-	190	-
37	Project Driveway East & Brace Road	Does not exist											

Existing AM

Intersection	Street Name	95th Percentile Queues											
#	North-South	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**263**	382	34	73	218	-	**213**	152	61	**168**	294	-
2	Taylor Road & Horseshoe Bar Road	6	169	18	**#347**	120	-	-	47	-	-	49	**94**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**207**	212	-	41	211	**132**	-	#194	48	81	**100**	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	8	-	-	-	-	-	-	363	-
5	Barton Road & Brace Road	-	15	-	-	-	-	-	-	-	-	5	-
6	Sierra College Boulevard & Taylor Road	180	244	29	54	#815	15	94	200	-	122	202	-
7	Sierra College Boulevard & Brace Road	-	124	-	92	93	-	-	-	6	75	-	32
8	Sierra College Boulevard & Granite Drive	264	172	33	129	366	37	109	49	32	**192**	70	-
9	Sierra College Boulevard & I-80 WB Ramps	82	77	23	-	210	7	13	-	19	206	117	50
10	Sierra College Boulevard & I-80 EB Ramps	-	108	-	61	207	24	80	39	48	42	-	34
11	Sierra College Boulevard & Schriber Way	-	-	-	-	-	-	-	-	-	-	-	9
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	-	125	-	46	235	-	9	-	-	24	5	-
13	Sierra College Boulevard & Stadium Dwy	85	52	-	-	183	-	19	-	13	-	-	-
14	Sierra College Boulevard & Rocklin Road	**231**	355	-	141	227	82	139	130	50	152	221	-
15	Pacific Street & Dominguez Road/Delmar Avenue	81	217	-	38	188	16	-	53	33	-	79	13
16	Pacific Street & Rocklin Road	102	260	**455**	**243**	220	-	62	112	-	**395**	**408**	50
17	Granite Drive & Rocklin Road	28	36	-	205	207	39	**#239**	417	-	45	341	**330**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	50	135	-	-	#289	75	270	182	-
19	I-80 Eastbound Ramps & Rocklin Road	**#508**	#317	260	-	-	-	**#177**	124	-	-	301	-
20	Aguilar Road & Rocklin Road	135	-	7	-	-	-	63	382	-	22	158	-
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	5	-	-	-	-	-	10	-	5	-	-	-
23	El Don Drive & Rocklin Road	**167**	34	-	-	36	23	**#764**	345	-	26	253	-
24	Sierra College Boulevard & Project Driveway	DNE											
25	Brace Road & Project Driveway	DNE											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	73	8	-	-	-	-	70	245	35	68	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	8	-	-	-	-	-	10	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	-	-	-	28	-
29	Taylor Road & English Colony Way-Rock Springs Road	25	73	-	-	168	25	-	40	**63**	-	55	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	33	-	-	-	-	-	385	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	25	-	-	-	-	-	58	-	18
33	Taylor Road & First Baptist Church Driveway/Del Oro High School	-	-	-	15	-	-	-	-	-	-	**490**	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	18	-	-	-	-	-	**148**	-	15
35	Taylor Road & Rippey Road	8	-	-	-	-	-	10	-	-	-	-	-
36	Taylor Road & Webb Street	13	-	-	3	-	-	-	-	48	-	5	-

Notes:

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

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

Bold indicated queues in excess of capacity

Existing PM

Intersection	Street Name	95th Percentile Queues											
#	North-South	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#314**	280	42	70	155	-	**74**	132	79	**125**	151	-
2	Taylor Road & Horseshoe Bar Road	31	249	24	**#384**	205	-	-	46	-	-	77	**145**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**131**	217	-	72	177	78	-	#203	37	**131**	**77**	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	8	-	-	-	-	-	388	-
5	Barton Road & Brace Road	-	15	-	-	-	-	-	-	-	-	3	-
6	Sierra College Boulevard & Taylor Road	166	**#965**	58	51	#616	6	**163**	324	54	166	325	-
7	Sierra College Boulevard & Brace Road	-	248	-	89	91	-	-	-	19	92	-	38
8	Sierra College Boulevard & Granite Drive	**267**	325	30	101	427	36	**217**	53	47	**153**	53	-
9	Sierra College Boulevard & I-80 WB Ramps	**288**	152	34	-	**378**	52	110	-	22	197	186	60
10	Sierra College Boulevard & I-80 EB Ramps	-	268	38	124	178	35	154	119	34	126	-	248
11	Sierra College Boulevard & Schriber Way	-	-	-	-	-	-	-	-	-	-	-	9
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	8	242	13	42	229	-	14	-	-	45	-	-
13	Sierra College Boulevard & Stadium Dwy	27	135	-	-	110	-	39	-	29	-	-	-
14	Sierra College Boulevard & Rocklin Road	187	**#659**	-	199	243	98	**287**	155	73	91	187	-
15	Pacific Street & Dominguez Road/Delmar Avenue	56	402	-	33	272	-	-	83	43	-	100	13
16	Pacific Street & Rocklin Road	97	364	**521**	183	356	-	65	94	-	**552**	**556**	128
17	Granite Drive & Rocklin Road	**79**	45	-	**347**	346	69	**#338**	369	-	76	513	**333**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	46	200	-	-	#327	89	**#531**	228	-
19	I-80 Eastbound Ramps & Rocklin Road	311	278	113	-	-	-	**#243**	123	-	-	**#584**	-
20	Aguilar Road & Rocklin Road	87	-	3	-	-	-	61	232	-	32	286	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	3	-	-	-
22	Dominguez Road & Granite Driive	3	-	-	-	0	-	15	-	5	-	-	-
23	El Don Drive & Rocklin Road	**158**	29	-	-	126	**100**	243	386	-	40	351	-
24	Sierra College Boulevard & Project Driveway	DNE											
25	Brace Road & Project Driveway	DNE											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	415	23	-	-	-	-	103	63	18	83	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	13	-	-	-	-	-	23	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	3	-	-	28	-
29	Taylor Road & English Colony Way-Rock Springs Road	20	85	-	0	28	13	-	28	15	-	18	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	10	-	-	-	-	-	55	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	8	-	-
33	Taylor Road & First Baptist Church Driveway/Del Oro High School	-	-	-	-	-	-	-	-	-	-	10	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	3	-	-	-	-	-	43	-	5
35	Taylor Road & Rippey Road	3	-	-	-	-	-	5	-	-	-	-	-
36	Taylor Road & Webb Street	25	-	-	-	-	-	-	-	30	-	8	-

Notes:

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

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

Bold indicated queues in excess of capacity

Existing SAT

Intersection	Street Name	95th Percentile Queues											
#	North-South	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	147	143	27	34	101	-	60	54	43	**133**	78	-
2	Taylor Road & Horseshoe Bar Road	22	159	26	**#249**	155	-	-	28	-	-	79	28
3	Horseshoe Bar Road & I-80 Westbound Ramp	**156**	150	-	52	134	65	-	#175	30	87	**99**	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	5	-	-	-	-	-	185	-
5	Barton Road & Brace Road	-	40	-	-	-	-	-	0	-	-	5	-
6	Sierra College Boulevard & Taylor Road	157	283	34	55	352	-	103	216	25	129	183	-
7	Sierra College Boulevard & Brace Road	-	136	-	63	70	-	-	-	-	79	-	18
8	Sierra College Boulevard & Granite Drive	191	153	30	83	243	45	129	41	38	**130**	42	-
9	Sierra College Boulevard & I-80 WB Ramps	**347**	91	34	-	268	41	108	-	77	163	200	58
10	Sierra College Boulevard & I-80 EB Ramps	-	133	39	147	105	32	114	118	22	107	-	196
11	Sierra College Boulevard & Schriber Way	-	-	-	-	-	-	-	-	-	-	-	12
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	4	112	24	34	137	-	8	-	-	29	4	-
13	Sierra College Boulevard & Stadium Dwy	16	66	-	-	73	-	14	-	14	-	-	-
14	Sierra College Boulevard & Rocklin Road	81	217	-	112	110	31	130	81	54	58	95	-
15	Pacific Street & Dominguez Road/Delmar Avenue	26	158	-	28	202	22	-	60	5	-	23	9
16	Pacific Street & Rocklin Road	30	181	**170**	100	144	-	41	41	-	208	210	40
17	Granite Drive & Rocklin Road	62	40	-	253	257	61	**#294**	212	-	48	216	96
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	43	61	-	-	154	61	294	67	-
19	I-80 Eastbound Ramps & Rocklin Road	253	243	55	-	-	-	156	81	-	-	249	-
20	Aguilar Road & Rocklin Road	64	-	2	-	-	-	47	117	-	17	122	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	5	-	-	-	-	-	10	-	5	-	-	-
23	El Don Drive & Rocklin Road	81	15	-	-	36	39	48	207	-	33	198	-
24	Sierra College Boulevard & Project Driveway	DNE											
25	Brace Road & Project Driveway	DNE											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	103	23	-	3	-	-	70	53	155	53	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	3	-	-	-	-	-	10	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	-	-	-	18	-
29	Taylor Road & English Colony Way-Rock Springs Road	35	78	-	3	53	18	-	50	**40**	-	28	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	8	-	-	-	-	-	25	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	-	-	-
33	Taylor Road & First Baptist Church Driveway/Del Oro High School	-	-	-	3	-	-	-	-	-	-	25	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	-	-	-	-	-	-	33	-	5
35	Taylor Road & Rippey Road	5	-	-	-	-	-	5	-	-	-	-	-
36	Taylor Road & Webb Street	15	-	-	-	-	-	-	-	58	-	45	-

Notes:

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

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

Bold indicated queues in excess of capacity

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	197	136	256	155	297	240	415	92	46	475
v/c Ratio	0.64	0.45	0.55	0.40	0.75	0.68	0.62	0.16	0.33	0.70
Control Delay	49.4	43.4	10.0	38.4	46.0	48.6	33.4	6.6	55.0	40.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	43.4	10.0	38.4	46.0	48.6	33.4	6.6	55.0	40.6
Queue Length 50th (ft)	112	75	0	81	151	135	214	0	27	131
Queue Length 95th (ft)	213	152	61	168	294	263	382	34	73	218
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	553	545	632	548	554	489	846	728	518	1506
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.25	0.41	0.28	0.54	0.49	0.49	0.13	0.09	0.32

Intersection Summary

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	66	62	527	2	349	59	460	367
v/c Ratio	0.23	0.21	0.59	0.01	0.59	0.11	0.74	0.26
Control Delay	19.5	22.1	6.0	25.0	19.2	4.5	28.7	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	22.1	6.0	25.0	19.2	4.5	28.7	4.8
Queue Length 50th (ft)	14	16	22	1	89	0	123	31
Queue Length 95th (ft)	47	49	94	6	169	18	#347	120
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	762	773	900	644	1445	1192	619	1427
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.08	0.59	0.00	0.24	0.05	0.74	0.26

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	99	133	55	86	182	631	20	241	398
v/c Ratio	0.73	0.20	0.32	0.47	0.67	0.45	0.17	0.53	0.64
Control Delay	67.7	6.8	48.4	44.8	51.8	20.4	50.7	33.5	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	6.8	48.4	44.8	51.8	20.4	50.7	33.5	11.7
Queue Length 50th (ft)	50	0	30	37	99	120	11	116	34
Queue Length 95th (ft)	#194	48	81	100	207	212	41	211	132
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	135	651	532	527	426	1747	434	871	906
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.20	0.10	0.16	0.43	0.36	0.05	0.28	0.44

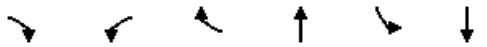
Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	66	183	86	219	190	22	156	296	164	30	633	117
v/c Ratio	0.41	0.58	0.22	0.54	0.48	0.05	0.64	0.35	0.16	0.24	0.96	0.17
Control Delay	53.8	46.8	1.2	48.4	40.8	0.2	53.7	21.2	2.0	52.5	62.3	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	46.8	1.2	48.4	40.8	0.2	53.7	21.2	2.0	52.5	62.3	2.0
Queue Length 50th (ft)	40	107	0	68	109	0	94	124	0	18	388	0
Queue Length 95th (ft)	94	200	0	122	202	0	180	244	29	54	#815	15
Internal Link Dist (ft)		429			1915			582			10000	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	342	541	563	864	614	614	413	852	1239	349	656	670
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.34	0.15	0.25	0.31	0.04	0.38	0.35	0.13	0.09	0.96	0.17

Intersection Summary

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



Lane Group	EBR	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	111	111	97	588	135	804
v/c Ratio	0.24	0.29	0.24	0.36	0.50	0.34
Control Delay	1.8	20.4	7.1	12.3	27.4	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.8	20.4	7.1	12.3	27.4	5.2
Queue Length 50th (ft)	0	25	0	60	34	49
Queue Length 95th (ft)	6	75	32	124	92	93
Internal Link Dist (ft)				226		582
Turn Bay Length (ft)	860	100	1000		170	
Base Capacity (vph)	935	1031	914	2599	649	3449
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.11	0.11	0.23	0.21	0.23

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	74	24	114	155	43	29	234	491	118	93	819	86
v/c Ratio	0.40	0.18	0.38	0.56	0.20	0.11	0.63	0.33	0.16	0.45	0.67	0.14
Control Delay	51.8	52.4	14.2	48.4	45.2	0.8	44.8	18.7	3.9	51.1	30.6	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	52.4	14.2	48.4	45.2	0.8	44.8	18.7	3.9	51.1	30.6	7.0
Queue Length 50th (ft)	41	13	0	84	23	0	124	96	0	51	213	2
Queue Length 95th (ft)	109	49	32	192	70	0	264	172	33	129	366	37
Internal Link Dist (ft)		707			453			403			1015	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	545	578	890	545	573	560	848	2713	1279	366	1941	901
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.04	0.13	0.28	0.08	0.05	0.28	0.18	0.09	0.25	0.42	0.10

Intersection Summary

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	5	70	669	164	154	84	681	159	1119	42
v/c Ratio	0.03	0.28	0.69	0.37	0.32	0.42	0.25	0.18	0.65	0.07
Control Delay	33.8	8.2	25.4	19.6	7.1	35.9	8.0	2.1	19.5	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.8	8.2	25.4	19.6	7.1	35.9	8.0	2.1	19.5	1.5
Queue Length 50th (ft)	2	0	118	36	0	31	45	0	127	0
Queue Length 95th (ft)	13	19	206	117	50	82	77	23	210	7
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	576	769	3069	900	869	831	4739	1389	2588	937
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.09	0.22	0.18	0.18	0.10	0.14	0.11	0.43	0.04

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	352	108	210	45	108	870	23	198	1151	194
v/c Ratio	0.37	0.18	0.48	0.17	0.32	0.57	0.05	0.37	0.64	0.23
Control Delay	15.8	22.5	8.8	24.6	8.7	18.4	0.2	23.0	11.6	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	22.5	8.8	24.6	8.7	18.4	0.2	23.0	11.6	2.3
Queue Length 50th (ft)	40	15	0	12	0	66	0	27	126	0
Queue Length 95th (ft)	80	39	48	42	34	108	0	61	207	24
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	3050	2517	1143	1422	864	5037	1349	1761	3539	1482
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.04	0.18	0.03	0.13	0.17	0.02	0.11	0.33	0.13

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	3	1	45	1	5	891	28	44	1481	4
v/c Ratio	0.03	0.00	0.15	0.01	0.03	0.30	0.03	0.25	0.55	0.00
Control Delay	32.5	0.0	31.2	31.0	0.2	10.0	0.0	32.1	6.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	0.0	31.2	31.0	0.2	10.0	0.0	32.1	6.0	0.0
Queue Length 50th (ft)	1	0	8	0	0	69	0	17	107	0
Queue Length 95th (ft)	9	0	24	5	0	125	0	46	235	0
Internal Link Dist (ft)		226		372		97			363	
Turn Bay Length (ft)	190		285		185		45	245		340
Base Capacity (vph)	532	1108	1301	1120	797	4277	1306	1152	3471	1189
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.00	0.03	0.00	0.01	0.21	0.02	0.04	0.43	0.00

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	29	11	96	899	1771
v/c Ratio	0.11	0.08	0.41	0.30	0.55
Control Delay	39.5	22.4	40.6	1.8	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	22.4	40.6	1.8	8.6
Queue Length 50th (ft)	7	0	47	46	173
Queue Length 95th (ft)	19	13	85	52	183
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	70	90	215		
Base Capacity (vph)	1726	840	934	3438	3739
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.02	0.01	0.10	0.26	0.47

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	104	246	243	117	477	461	780	106	702	173
v/c Ratio	0.49	0.33	0.47	0.50	0.63	0.60	0.68	0.50	0.56	0.37
Control Delay	56.1	39.2	8.5	55.0	39.1	42.8	34.9	56.4	38.3	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.1	39.2	8.5	55.0	39.1	42.8	34.9	56.4	38.3	14.5
Queue Length 50th (ft)	66	73	0	74	134	143	232	67	150	25
Queue Length 95th (ft)	139	130	50	152	221	231	355	141	227	82
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	498	1727	866	793	2137	1354	1787	472	2191	732
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.14	0.28	0.15	0.22	0.34	0.44	0.22	0.32	0.24

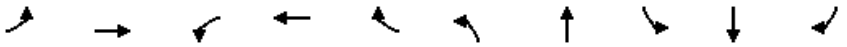
Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	56	78	96	34	101	444	33	362	44
v/c Ratio	0.26	0.26	0.32	0.10	0.32	0.41	0.17	0.41	0.06
Control Delay	25.7	9.3	25.5	4.5	25.2	11.0	26.9	15.2	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.7	9.3	25.5	4.5	25.2	11.0	26.9	15.2	4.3
Queue Length 50th (ft)	15	0	27	0	28	56	9	89	0
Queue Length 95th (ft)	53	33	79	13	81	217	38	188	16
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	700	794	949	923	983	1507	797	1578	1283
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.10	0.10	0.04	0.10	0.29	0.04	0.23	0.03

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	26	197	279	289	94	50	476	588	156	465
v/c Ratio	0.18	0.52	0.67	0.68	0.20	0.34	0.43	0.81	0.59	0.32
Control Delay	63.5	40.5	51.2	51.4	10.2	67.6	33.0	26.4	61.6	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	40.5	51.2	51.4	10.2	67.6	33.0	26.4	61.6	24.8
Queue Length 50th (ft)	18	44	193	201	2	35	141	187	108	121
Queue Length 95th (ft)	62	112	395	408	50	102	260	455	243	220
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	408	934	944	964	924	334	1931	1022	574	2325
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.21	0.30	0.30	0.10	0.15	0.25	0.58	0.27	0.20

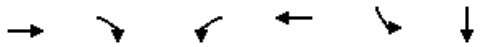
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	152	876	20	694	603	14	25	153	155	103
v/c Ratio	0.73	0.60	0.21	0.67	0.84	0.03	0.05	0.65	0.65	0.33
Control Delay	75.8	32.6	65.9	42.9	25.5	38.4	30.6	64.5	64.3	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.8	32.6	65.9	42.9	25.5	38.4	30.6	64.5	64.3	9.7
Queue Length 50th (ft)	119	265	16	260	171	8	11	123	125	0
Queue Length 95th (ft)	#239	417	45	341	330	28	36	205	207	39
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	222	1471	283	1435	847	512	460	450	456	501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.60	0.07	0.48	0.71	0.03	0.05	0.34	0.34	0.21

Intersection Summary

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



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	734	482	396	1128	51	237
v/c Ratio	0.51	0.53	0.81	0.43	0.20	0.76
Control Delay	23.7	5.1	42.7	5.4	31.4	35.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	5.1	42.7	5.4	31.4	35.6
Queue Length 50th (ft)	153	0	200	96	25	73
Queue Length 95th (ft)	#289	75	270	182	50	135
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1446	904	546	2614	523	536
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.53	0.73	0.43	0.10	0.44

Intersection Summary

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

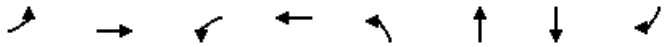
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	196	580	874	567	535	519
v/c Ratio	0.76	0.31	0.74	0.91	0.77	0.72
Control Delay	53.8	12.4	30.4	47.2	22.7	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	12.4	30.4	47.2	22.7	18.4
Queue Length 50th (ft)	102	90	224	300	167	130
Queue Length 95th (ft)	#177	124	301	#508	#317	260
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	303	1861	1187	633	701	728
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.31	0.74	0.90	0.76	0.71

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	56	1519	11	743	161	29
v/c Ratio	0.26	0.66	0.08	0.37	0.51	0.10
Control Delay	32.8	10.4	33.6	10.4	31.9	3.4
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	32.8	10.5	33.6	10.4	31.9	3.4
Queue Length 50th (ft)	19	147	4	92	53	0
Queue Length 95th (ft)	63	382	22	158	135	7
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	685	2681	570	2687	665	564
Starvation Cap Reductn	0	255	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.63	0.02	0.28	0.24	0.05

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	570	796	13	580	164	32	17	68
v/c Ratio	0.97	0.38	0.08	0.64	0.54	0.10	0.17	0.33
Control Delay	65.0	15.3	41.1	33.3	43.2	21.0	50.2	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.0	15.3	41.1	33.3	43.2	21.0	50.2	8.7
Queue Length 50th (ft)	328	104	7	148	90	7	10	0
Queue Length 95th (ft)	#764	345	26	253	167	34	36	23
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	588	2342	588	2273	588	579	467	591
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.34	0.02	0.26	0.28	0.06	0.04	0.12

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	66	133	385	126	166	319	365	164	54	385
v/c Ratio	0.27	0.52	0.70	0.49	0.62	0.61	0.46	0.23	0.34	0.66
Control Delay	35.9	41.2	11.5	39.9	41.0	32.9	22.5	4.6	44.1	35.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	41.2	11.5	39.9	41.0	32.9	22.5	4.6	44.1	35.8
Queue Length 50th (ft)	30	62	0	59	71	134	133	0	26	87
Queue Length 95th (ft)	74	132	79	125	151	#314	280	42	70	155
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	604	642	793	610	612	524	927	824	567	1688
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.21	0.49	0.21	0.27	0.61	0.39	0.20	0.10	0.23

Intersection Summary

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

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	58	91	479	23	463	85	413	496
v/c Ratio	0.20	0.37	0.58	0.13	0.72	0.15	0.76	0.37
Control Delay	19.7	28.1	8.6	29.9	23.3	4.4	35.3	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	28.1	8.6	29.9	23.3	4.4	35.3	6.6
Queue Length 50th (ft)	12	28	39	7	134	1	128	53
Queue Length 95th (ft)	46	77	145	31	249	24	#384	205
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	654	560	831	552	1251	1037	542	1350
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.16	0.58	0.04	0.37	0.08	0.76	0.37

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	115	81	112	101	112	606	49	203	354
v/c Ratio	0.73	0.12	0.52	0.39	0.54	0.60	0.32	0.48	0.57
Control Delay	59.4	7.3	47.5	23.9	48.1	27.0	47.2	32.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	7.3	47.5	23.9	48.1	27.0	47.2	32.5	7.9
Queue Length 50th (ft)	52	0	56	20	56	139	25	92	7
Queue Length 95th (ft)	#203	37	131	77	131	217	72	177	78
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	157	661	563	576	437	1731	454	929	965
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.12	0.20	0.18	0.26	0.35	0.11	0.22	0.37

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	127	298	166	299	307	49	130	749	270	26	484	108
v/c Ratio	0.59	0.71	0.34	0.63	0.67	0.10	0.60	0.94	0.26	0.24	0.81	0.18
Control Delay	59.4	50.3	7.6	52.6	46.2	0.5	59.7	54.3	3.7	58.7	48.7	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	50.3	7.6	52.6	46.2	0.5	59.7	54.3	3.7	58.7	48.7	1.4
Queue Length 50th (ft)	87	193	0	105	195	0	89	~588	15	18	318	0
Queue Length 95th (ft)	163	324	54	166	325	0	166	#965	58	51	#616	6
Internal Link Dist (ft)		429			1915			582			10000	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	328	513	559	782	600	572	395	797	1170	304	600	607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.58	0.30	0.38	0.51	0.09	0.33	0.94	0.23	0.09	0.81	0.18

Intersection Summary

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

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

Lane Group	EBR	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	148	117	110	1078	103	777
v/c Ratio	0.32	0.34	0.28	0.52	0.48	0.30
Control Delay	3.5	27.2	8.1	12.2	35.6	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.5	27.2	8.1	12.2	35.6	4.4
Queue Length 50th (ft)	0	38	0	139	36	51
Queue Length 95th (ft)	19	92	38	248	89	91
Internal Link Dist (ft)				226		582
Turn Bay Length (ft)	860	100	1000		170	
Base Capacity (vph)	890	860	814	2257	558	3148
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.14	0.14	0.48	0.18	0.25

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	178	28	306	114	26	35	232	913	73	65	934	85
v/c Ratio	0.52	0.15	0.54	0.50	0.19	0.18	0.65	0.50	0.09	0.37	0.70	0.13
Control Delay	47.3	49.1	9.7	53.0	54.9	2.0	48.1	18.4	5.4	54.6	30.8	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	47.3	49.1	9.7	53.0	54.9	2.0	48.1	18.5	5.4	54.6	30.8	6.5
Queue Length 50th (ft)	106	16	0	69	16	0	136	200	3	40	257	1
Queue Length 95th (ft)	217	53	47	153	53	0	267	325	30	101	427	36
Internal Link Dist (ft)		707			453			403			1015	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	570	577	1073	553	577	542	815	2719	1204	373	1864	869
Starvation Cap Reductn	0	0	0	0	0	0	0	502	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.05	0.29	0.21	0.05	0.06	0.28	0.41	0.06	0.17	0.50	0.10

Intersection Summary

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	82	120	485	167	153	289	971	279	1244	100
v/c Ratio	0.51	0.22	0.55	0.64	0.44	0.77	0.31	0.26	0.69	0.16
Control Delay	55.9	3.5	31.8	47.8	11.1	49.9	9.1	1.8	29.6	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	3.5	31.8	47.8	11.1	49.9	9.1	1.8	29.6	9.8
Queue Length 50th (ft)	47	0	125	89	0	163	89	0	222	8
Queue Length 95th (ft)	110	22	197	186	60	288	152	34	378	52
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	409	724	2295	671	672	608	3890	1286	1943	682
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.17	0.21	0.25	0.23	0.48	0.25	0.22	0.64	0.15

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	409	237	63	111	327	1356	93	295	811	366
v/c Ratio	0.40	0.54	0.25	0.50	0.76	0.72	0.17	0.38	0.40	0.34
Control Delay	25.5	40.6	11.6	45.3	33.8	28.3	7.3	29.2	10.0	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	40.6	11.6	45.3	33.8	28.3	7.3	29.2	10.0	1.9
Queue Length 50th (ft)	82	58	0	52	103	171	2	61	101	0
Queue Length 95th (ft)	154	119	34	126	248	268	38	124	178	35
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	2253	1659	765	938	589	3714	990	1138	3127	1466
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.14	0.08	0.12	0.56	0.37	0.09	0.26	0.26	0.25

Intersection Summary

Lane Group	EBL	EBT	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	5	1	82	12	2	1448	61	28	989	1
v/c Ratio	0.03	0.00	0.23	0.02	0.01	0.44	0.06	0.17	0.40	0.00
Control Delay	36.2	0.0	33.4	0.0	36.5	8.3	1.8	35.5	6.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	0.0	33.4	0.0	36.5	8.3	1.8	35.5	6.5	0.0
Queue Length 50th (ft)	2	0	15	0	1	61	0	10	59	0
Queue Length 95th (ft)	14	0	45	0	8	242	13	42	229	0
Internal Link Dist (ft)		226				97			363	
Turn Bay Length (ft)	190		285	185	90		45	245		340
Base Capacity (vph)	780	1084	1416	1199	780	4400	1380	1395	3544	1568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.00	0.06	0.01	0.00	0.33	0.04	0.02	0.28	0.00

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	125	78	27	1244	990
v/c Ratio	0.23	0.25	0.11	0.55	0.36
Control Delay	19.8	8.3	21.2	6.3	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	8.3	21.2	6.3	8.1
Queue Length 50th (ft)	14	0	6	83	36
Queue Length 95th (ft)	39	29	27	135	110
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	70	90	215		
Base Capacity (vph)	2842	1325	1465	3539	5029
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.04	0.06	0.02	0.35	0.20

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	241	324	369	55	378	330	1016	154	708	173
v/c Ratio	0.63	0.29	0.49	0.36	0.62	0.55	0.99	0.59	0.53	0.35
Control Delay	49.1	30.3	5.6	58.5	40.9	46.9	67.2	55.9	38.0	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	30.3	5.6	58.5	40.9	46.9	67.2	55.9	38.0	14.4
Queue Length 50th (ft)	151	89	0	37	106	108	~402	101	157	26
Queue Length 95th (ft)	287	155	73	91	187	187	#659	199	243	98
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	496	1623	923	752	1970	1272	1791	492	2120	706
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.20	0.40	0.07	0.19	0.26	0.57	0.31	0.33	0.25

Intersection Summary

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

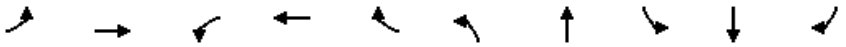
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	92	131	113	35	49	678	22	489	13
v/c Ratio	0.36	0.32	0.45	0.10	0.23	0.64	0.11	0.51	0.02
Control Delay	29.0	7.9	31.3	4.5	31.7	14.7	32.5	14.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	7.9	31.3	4.5	31.7	14.7	32.5	14.5	0.1
Queue Length 50th (ft)	28	0	35	0	16	117	7	129	0
Queue Length 95th (ft)	83	43	100	13	56	402	33	272	0
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	664	849	647	773	798	1493	903	1502	1119
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.15	0.17	0.05	0.06	0.45	0.02	0.33	0.01

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	27	113	405	409	221	46	631	547	105	662
v/c Ratio	0.20	0.42	0.74	0.74	0.36	0.36	0.52	0.80	0.54	0.47
Control Delay	71.8	63.1	51.3	51.1	14.4	76.0	37.7	33.2	73.5	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.8	63.1	51.3	51.1	14.4	76.0	37.7	33.2	73.5	32.3
Queue Length 50th (ft)	23	45	331	334	44	39	230	265	89	227
Queue Length 95th (ft)	65	94	552	556	128	97	364	521	183	356
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	394	777	827	836	852	293	1707	882	512	2141
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.15	0.49	0.49	0.26	0.16	0.37	0.62	0.21	0.31

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	181	696	38	888	434	51	31	255	255	226
v/c Ratio	0.91	0.53	0.36	0.83	0.73	0.11	0.07	0.77	0.76	0.46
Control Delay	104.6	38.4	75.0	53.9	29.1	44.6	32.1	69.4	68.8	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.6	38.4	75.0	53.9	29.1	44.6	32.1	69.4	68.8	8.6
Queue Length 50th (ft)	170	270	35	399	179	37	14	240	238	0
Queue Length 95th (ft)	#338	369	76	513	333	79	45	347	346	69
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	200	1308	258	1284	669	454	460	423	426	568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.53	0.15	0.69	0.65	0.11	0.07	0.60	0.60	0.40

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	719	497	569	1126	45	315
v/c Ratio	0.69	0.62	0.90	0.46	0.13	0.82
Control Delay	35.7	6.8	47.9	7.4	29.1	41.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	6.8	47.9	7.4	29.1	41.8
Queue Length 50th (ft)	206	0	298	129	22	125
Queue Length 95th (ft)	#327	89	#531	228	46	200
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1046	807	645	2464	503	512
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.62	0.88	0.46	0.09	0.62

Intersection Summary

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

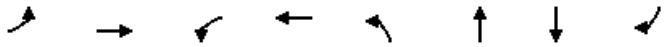
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	220	570	1308	386	377	354
v/c Ratio	0.82	0.27	0.89	0.77	0.74	0.55
Control Delay	63.7	10.1	37.1	40.1	32.0	9.6
Queue Delay	0.0	0.0	1.2	0.0	0.0	0.0
Total Delay	63.7	10.1	38.3	40.1	32.0	9.6
Queue Length 50th (ft)	126	82	402	214	175	37
Queue Length 95th (ft)	#243	123	#584	311	278	113
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	286	2147	1462	586	586	713
Starvation Cap Reductn	0	0	46	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.27	0.92	0.66	0.64	0.50

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	57	1130	22	1227	95	21
v/c Ratio	0.23	0.47	0.11	0.54	0.33	0.07
Control Delay	30.4	8.1	31.4	11.1	29.9	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	8.2	31.4	11.1	29.9	0.9
Queue Length 50th (ft)	19	77	7	170	31	0
Queue Length 95th (ft)	61	232	32	286	87	3
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	825	2820	825	2880	794	735
Starvation Cap Reductn	0	316	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.45	0.03	0.43	0.12	0.03

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	195	792	20	699	126	28	85	379
v/c Ratio	0.59	0.49	0.10	0.63	0.45	0.10	0.46	0.70
Control Delay	45.6	22.3	42.1	31.1	43.7	17.6	50.7	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.6	22.3	42.1	31.1	43.7	17.6	50.7	12.5
Queue Length 50th (ft)	96	114	10	163	63	1	42	0
Queue Length 95th (ft)	243	386	40	351	158	29	126	100
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	630	2458	630	2498	630	590	486	807
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.32	0.03	0.28	0.20	0.05	0.17	0.47

Intersection Summary

1: Taylor Rd & King Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	62	54	217	183	108	220	254	142	27	307
v/c Ratio	0.30	0.27	0.58	0.55	0.32	0.55	0.33	0.20	0.17	0.51
Control Delay	33.8	33.0	12.0	32.3	25.7	29.4	16.9	4.5	34.5	27.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.8	33.0	12.0	32.3	25.7	29.4	16.9	4.5	34.5	27.9
Queue Length 50th (ft)	22	19	0	63	32	74	55	0	10	53
Queue Length 95th (ft)	60	54	43	133	78	147	143	27	34	101
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	759	757	813	812	792	718	1209	1009	746	2233
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.07	0.27	0.23	0.14	0.31	0.21	0.14	0.04	0.14

Intersection Summary

2: Taylor Rd & Horseshoe Bar Rd

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	36	116	295	17	317	98	356	407
v/c Ratio	0.13	0.43	0.33	0.09	0.58	0.19	0.61	0.32
Control Delay	16.9	25.4	2.2	25.8	21.3	5.0	24.4	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	25.4	2.2	25.8	21.3	5.0	24.4	6.8
Queue Length 50th (ft)	7	32	0	5	84	0	91	42
Queue Length 95th (ft)	28	79	28	22	159	26	#249	155
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	685	590	907	596	1377	1127	585	1350
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.20	0.33	0.03	0.23	0.09	0.61	0.30

Intersection Summary

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

3: Horseshoe Bar Rd & I-80 WB Ramp

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	112	65	72	106	154	458	34	151	353
v/c Ratio	0.65	0.10	0.39	0.50	0.61	0.45	0.25	0.46	0.61
Control Delay	47.3	7.1	42.9	36.8	44.8	23.6	44.1	34.2	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.3	7.1	42.9	36.8	44.8	23.6	44.1	34.2	8.4
Queue Length 50th (ft)	39	0	31	34	67	93	15	65	0
Queue Length 95th (ft)	#175	30	87	99	156	150	52	134	65
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	171	635	564	578	460	1788	452	942	995
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.10	0.13	0.18	0.33	0.26	0.08	0.16	0.35

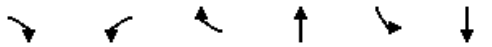
Intersection Summary

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

6: Sierra College Blvd & Taylor Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	74	207	128	236	179	26	131	331	228	31	359	63
v/c Ratio	0.39	0.54	0.28	0.50	0.36	0.05	0.53	0.45	0.22	0.21	0.68	0.11
Control Delay	49.2	40.3	4.0	43.3	34.0	0.2	48.0	24.9	2.1	49.3	38.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.2	40.3	4.0	43.3	34.0	0.2	48.0	24.9	2.1	49.3	38.1	0.4
Queue Length 50th (ft)	39	104	0	63	85	0	68	143	0	17	175	0
Queue Length 95th (ft)	103	216	25	129	183	0	157	283	34	55	352	0
Internal Link Dist (ft)		429			1915			582			10000	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	406	654	653	1005	756	718	493	862	1254	418	756	735
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.32	0.20	0.23	0.24	0.04	0.27	0.38	0.18	0.07	0.47	0.09

Intersection Summary



Lane Group	EBR	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	72	118	57	699	79	627
v/c Ratio	0.13	0.29	0.15	0.38	0.37	0.27
Control Delay	0.5	19.8	4.9	10.4	26.9	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.5	19.8	4.9	10.4	26.9	5.1
Queue Length 50th (ft)	0	27	0	69	20	36
Queue Length 95th (ft)	0	79	18	136	63	70
Internal Link Dist (ft)				226		582
Turn Bay Length (ft)	860	100	1000		170	
Base Capacity (vph)	1063	1059	889	2744	660	3445
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.11	0.06	0.25	0.12	0.18

Intersection Summary

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	24	213	123	25	24	206	510	102	67	647	103
v/c Ratio	0.32	0.14	0.47	0.45	0.16	0.10	0.56	0.33	0.14	0.32	0.59	0.19
Control Delay	34.2	40.7	10.0	38.5	41.0	0.9	35.7	16.6	4.2	40.2	26.3	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	40.7	10.0	38.5	41.0	0.9	35.7	16.6	4.2	40.2	26.3	8.3
Queue Length 50th (ft)	52	11	0	53	11	0	86	84	0	29	133	5
Queue Length 95th (ft)	129	41	38	130	42	0	191	153	30	83	243	45
Internal Link Dist (ft)		707			453			403			1015	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	697	734	1247	704	707	702	1047	3245	1442	469	2371	1085
Starvation Cap Reductn	0	0	0	0	0	0	0	120	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.03	0.17	0.17	0.04	0.03	0.20	0.16	0.07	0.14	0.27	0.09

Intersection Summary

9: Sierra College Blvd & I-80 WB Ramps

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	83	302	424	178	153	354	581	255	917	85
v/c Ratio	0.47	0.45	0.44	0.62	0.42	0.70	0.19	0.25	0.72	0.18
Control Delay	51.7	7.9	27.1	46.5	10.6	39.0	9.1	2.0	34.2	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	7.9	27.1	46.5	10.6	39.0	9.1	2.0	34.2	9.4
Queue Length 50th (ft)	44	29	94	94	0	171	49	0	168	2
Queue Length 95th (ft)	108	77	163	200	58	347	91	34	268	41
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	455	811	2469	770	718	682	4089	1310	2179	756
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.37	0.17	0.23	0.21	0.52	0.14	0.19	0.42	0.11

Intersection Summary

10: Sierra College Blvd & I-80 EB Ramps

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	385	290	52	110	345	704	93	445	509	226
v/c Ratio	0.32	0.53	0.18	0.45	0.73	0.57	0.23	0.55	0.29	0.25
Control Delay	18.0	31.9	7.0	36.2	25.5	27.2	8.4	25.9	10.4	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	31.9	7.0	36.2	25.5	27.2	8.4	25.9	10.4	2.3
Queue Length 50th (ft)	57	56	0	41	80	73	0	80	57	0
Queue Length 95th (ft)	114	118	22	107	196	133	39	147	105	32
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	2669	1926	877	1123	704	4412	1192	1348	3395	1511
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.15	0.06	0.10	0.49	0.16	0.08	0.33	0.15	0.15

Intersection Summary

12: Sierra College Blvd & Bass Pro Dr/Dominguez Rd

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	3	3	72	1	19	1	742	79	32	633	5
v/c Ratio	0.01	0.01	0.14	0.00	0.06	0.00	0.25	0.08	0.13	0.28	0.00
Control Delay	23.0	0.0	20.6	22.0	0.4	23.0	9.2	4.2	21.7	7.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.0	0.0	20.6	22.0	0.4	23.0	9.2	4.2	21.7	7.4	0.0
Queue Length 50th (ft)	1	0	7	0	0	0	24	0	6	31	0
Queue Length 95th (ft)	8	0	29	4	0	4	112	24	34	137	0
Internal Link Dist (ft)		226		372			97			363	
Turn Bay Length (ft)	190		285		185	90		45	245		340
Base Capacity (vph)	1256	1461	2343	1652	1416	1256	5010	1576	1617	3539	1581
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.00	0.03	0.00	0.01	0.00	0.15	0.05	0.02	0.18	0.00

Intersection Summary

13: Sierra College Blvd & Stadium Dwy

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	40	22	16	827	746
v/c Ratio	0.08	0.08	0.06	0.30	0.20
Control Delay	17.3	9.7	17.7	3.3	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	9.7	17.7	3.3	4.8
Queue Length 50th (ft)	5	0	4	40	23
Queue Length 95th (ft)	14	14	16	66	73
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	70	90	215		
Base Capacity (vph)	3137	1492	1665	3539	5007
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.01	0.01	0.01	0.23	0.15

Intersection Summary

14: Sierra College Blvd & Rocklin Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	130	192	193	42	282	172	597	107	471	94
v/c Ratio	0.48	0.20	0.34	0.24	0.49	0.33	0.56	0.43	0.32	0.18
Control Delay	39.3	26.7	6.7	40.5	24.7	34.1	26.0	39.7	23.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.3	26.7	6.7	40.5	24.7	34.1	26.0	39.7	23.2	5.4
Queue Length 50th (ft)	59	41	0	19	43	39	125	49	64	0
Queue Length 95th (ft)	130	81	54	58	95	81	217	112	110	31
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	689	2298	1073	1034	2721	1749	2502	689	2971	923
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.08	0.18	0.04	0.10	0.10	0.24	0.16	0.16	0.10

Intersection Summary

15: Pacific St & Dominguez Rd/Delmar Ave

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	72	23	20	29	20	362	23	456	69
v/c Ratio	0.26	0.06	0.06	0.08	0.08	0.32	0.10	0.38	0.07
Control Delay	20.9	2.1	18.6	3.4	22.1	8.2	22.0	8.7	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	2.1	18.6	3.4	22.1	8.2	22.0	8.7	3.7
Queue Length 50th (ft)	13	0	4	0	4	39	4	52	1
Queue Length 95th (ft)	60	5	23	9	26	158	28	202	22
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	960	1090	1073	1118	1188	1699	1058	1763	1470
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.02	0.02	0.03	0.02	0.21	0.02	0.26	0.05

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	24	74	225	227	107	15	473	337	86	425
v/c Ratio	0.12	0.19	0.49	0.50	0.21	0.09	0.44	0.55	0.33	0.30
Control Delay	40.1	30.7	30.9	30.9	7.0	41.1	25.0	15.8	38.1	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	30.7	30.9	30.9	7.0	41.1	25.0	15.8	38.1	17.5
Queue Length 50th (ft)	10	12	95	96	0	7	95	55	37	58
Queue Length 95th (ft)	41	41	208	210	40	30	181	170	100	144
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	800	1537	1356	1359	1280	572	2799	1293	953	3225
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.05	0.17	0.17	0.08	0.03	0.17	0.26	0.09	0.13

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	184	435	23	414	444	46	39	211	214	188
v/c Ratio	0.76	0.39	0.21	0.58	0.68	0.08	0.07	0.67	0.68	0.43
Control Delay	70.2	34.0	59.5	45.4	9.5	32.7	18.7	55.1	55.4	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.2	34.0	59.5	45.4	9.5	32.7	18.7	55.1	55.4	8.8
Queue Length 50th (ft)	133	138	17	146	0	24	8	153	155	0
Queue Length 95th (ft)	#294	212	48	216	96	62	40	253	257	61
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	242	1405	309	1567	911	554	532	521	523	607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.31	0.07	0.26	0.49	0.08	0.07	0.40	0.41	0.31

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	491	434	397	743	31	181
v/c Ratio	0.28	0.44	0.83	0.25	0.24	0.64
Control Delay	16.2	3.6	46.5	2.2	43.6	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	3.6	46.5	2.2	43.6	17.1
Queue Length 50th (ft)	84	0	219	32	18	1
Queue Length 95th (ft)	154	61	294	67	43	61
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1742	987	605	2921	484	571
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.44	0.66	0.25	0.06	0.32

Intersection Summary

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	162	388	759	326	318	296
v/c Ratio	0.70	0.17	0.47	0.72	0.72	0.48
Control Delay	54.5	8.2	19.7	39.5	36.3	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	8.2	19.7	39.5	36.3	5.6
Queue Length 50th (ft)	93	45	156	183	167	0
Queue Length 95th (ft)	156	81	249	253	243	55
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	286	2268	1624	586	561	711
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.17	0.47	0.56	0.57	0.42

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	64	691	13	643	99	17
v/c Ratio	0.21	0.30	0.05	0.34	0.29	0.05
Control Delay	20.5	6.3	21.2	10.5	20.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	6.3	21.2	10.5	20.4	0.4
Queue Length 50th (ft)	15	35	3	66	22	0
Queue Length 95th (ft)	47	117	17	122	64	2
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	1058	3374	1058	3420	1058	970
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.20	0.01	0.19	0.09	0.02

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	35	608	20	568	102	17	22	89
v/c Ratio	0.15	0.39	0.09	0.39	0.27	0.05	0.13	0.32
Control Delay	31.2	14.8	32.1	17.2	22.8	11.5	32.7	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	14.8	32.1	17.2	22.8	11.5	32.7	10.9
Queue Length 50th (ft)	9	60	5	56	25	0	6	0
Queue Length 95th (ft)	48	207	33	198	81	15	36	39
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	1011	3192	1011	3248	1011	864	791	948
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.19	0.02	0.17	0.10	0.02	0.03	0.09

Intersection Summary

Existing Plus Project Conditions

Project Driveway Option A

Existing plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	200	970	350	280	490	-	65	215	150	95	585	-
2	Taylor Road & Horseshoe Bar Road	100	400	125	190	380	-	-	115	-	-	160	160
3	Horseshoe Bar Road & I-80 Westbound Ramp	85	680	-	160	450	95	-	935	250	275	95	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	2,350	100	-	685	-	-	-	-	-	1,080	-
5	Barton Road & Brace Road	-	2,895	-	-	-	-	-	1,980	-	-	560	-
6	Sierra College Boulevard & Taylor Road	210	550	550	210	1,500	450	150	900	250	215	2,060	215
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	60	230	150
9	Sierra College Boulevard & I-80 WB Ramps	200	1,530	325	-	370	150	530	-	530	740	1,320	740
10	Sierra College Boulevard & I-80 EB Ramps	-	710	280	250	1,530	500	1,315	1,315	205	345	-	330
11	Sierra College Boulevard & Schriber Way	-	395	-	-	300	-	-	-	-	-	-	415
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	90	1,675	45	245	710	340	190	275	-	285	745	185
13	Sierra College Boulevard & Stadium Dwy	215	1,580	-	-	1,690	-	70	-	90	-	-	-
14	Sierra College Boulevard & Rocklin Road	245	650	-	245	1,575	175	240	925	925	315	1,325	-
15	Pacific Street & Dominguez Road/Delmar Avenue	210	1,860	-	200	850	150	-	700	315	-	1,935	140
16	Pacific Street & Rocklin Road	265	420	110	230	410	-	130	285	-	250	330	330
17	Granite Drive & Rocklin Road	100	140	-	325	625	625	225	675	-	135	650	150
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	635	1,165	-	-	580	280	300	555	-
19	I-80 Eastbound Ramps & Rocklin Road	455	1,115	455	-	-	-	170	520	-	-	370	-
20	Aguilar Road & Rocklin Road	320	-	320	-	-	-	75	400	-	85	1,260	-
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
22	Dominguez Road & Granite Driive	220	1,390	-	-	730	-	370	-	50	-	-	-
23	El Don Drive & Rocklin Road	140	530	-	-	580	95	410	1,260	-	265	1,430	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	900	40	-	150	-	-	1900	600	465	2500	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	4500	-	100	1300	-	-	-	-	1450	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	105	1100	210	105	3100	-	-	85	30	-	910	30
29	Taylor Road & English Colony Way-Rock Springs Road	150	1,900	-	140	350	115	-	560	30	-	940	-
30	Taylor Road & Penryn Road (North	85	170	-	-	555	-	55	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	2600	-	85	180	-	-	-	-	495	-	-
32	Taylor Road & Del Oro High School North Lot	-	185	-	70	1600	-	-	-	-	200	-	45
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Drop Off	150	300	-	90	190	-	-	50	-	-	75	-
34	Taylor Road & Del Oro High School South Lot	-	1200	-	150	300	-	-	-	-	65	-	65
35	Taylor Road & Rippey Road	140	465	-	-	610	-	3500	-	-	-	-	-
36	Taylor Road & Webb Street	185	370	-	160	500	105	-	-	1070	-	190	-
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

ExistingP AM

Intersection	Street Name	95th Percentile Queues											
#	North-South	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**267**	384	34	73	220	-	**213**	152	62	**168**	295	-
2	Taylor Road & Horseshoe Bar Road	7	173	18	**#349**	122	-	-	48	-	-	50	99
3	Horseshoe Bar Road & I-80 Westbound Ramp	**207**	212	-	41	211	**132**	-	#194	48	81	**100**	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	8	-	-	-	-	-	363	-
5	Barton Road & Brace Road	-	15	-	-	-	-	-	-	-	-	5	-
6	Sierra College Boulevard & Taylor Road	190	251	29	55	#842	16	96	202	-	127	203	-
7	Sierra College Boulevard & Brace Road	-	116	5	#91	112	-	-	-	3	75	-	19
8	Sierra College Boulevard & Granite Drive	**269**	217	33	131	434	40	114	49	33	**194**	70	-
9	Sierra College Boulevard & I-80 WB Ramps	87	89	24	-	248	7	14	-	21	220	144	55
10	Sierra College Boulevard & I-80 EB Ramps	-	111	-	61	211	27	93	40	48	42	-	36
11	Sierra College Boulevard & Schriber Way	-	-	-	-	-	-	-	-	-	-	-	9
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	-	127	-	46	238	-	9	-	-	24	5	-
13	Sierra College Boulevard & Stadium Dwy	85	53	-	-	185	-	19	-	13	-	-	-
14	Sierra College Boulevard & Rocklin Road	234	363	-	142	231	84	142	130	50	153	222	-
15	Pacific Street & Dominguez Road/Delmar Avenue	82	222	-	38	194	16	-	54	33	-	79	13
16	Pacific Street & Rocklin Road	102	263	**464**	**244**	225	-	69	112	-	**397**	**410**	50
17	Granite Drive & Rocklin Road	28	36	-	205	207	43	**#245**	417	-	45	341	**330**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	50	135	-	-	#289	75	270	182	-
19	I-80 Eastbound Ramps & Rocklin Road	**#508**	#317	260	-	-	-	**#177**	124	-	-	301	-
20	Aguilar Road & Rocklin Road	136	-	8	-	-	-	63	386	-	24	158	-
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	5	-	-	-	-	-	10	-	5	-	-	-
23	El Don Drive & Rocklin Road	**167**	34	-	-	36	23	**#765**	347	-	27	253	-
24	Sierra College Boulevard & Project Driveway	-	58	10	41	101	-	-	-	-	38	-	21
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	75	8	-	-	-	-	70	253	35	68	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	8	-	-	-	-	-	10	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	-	-	-	30	-
29	Taylor Road & English Colony Way-Rock Springs Road	25	75	-	-	168	25	-	40	**65**	-	55	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	33	-	-	-	-	-	395	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	25	-	-	-	-	-	58	-	18
33	Taylor Road & First Baptist Church Driveway/Del Oro High School	-	-	-	15	-	-	-	-	-	-	**498**	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	18	-	-	-	-	-	**150**	-	15
35	Taylor Road & Rippey Road	8	-	-	-	-	-	10	-	-	-	-	-
36	Taylor Road & Webb Street	13	-	-	3	-	-	-	-	48	-	5	-
37	Project Driveway East & Brace Road	-	0	-	-	-	-	-	-	-	0	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

ExistingP PM

Intersection	Street Name	95th Percentile Queues											
#	North-South	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#329**	290	42	71	161	-	**75**	134	81	**130**	152	-
2	Taylor Road & Horseshoe Bar Road	32	265	25	**#396**	219	-	-	47	-	-	79	**161**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**131**	217	-	72	177	**78**	-	#203	37	131	77	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	8	-	-	-	-	-	388	-
5	Barton Road & Brace Road	-	18	-	-	-	-	-	-	-	-	3	-
6	Sierra College Boulevard & Taylor Road	193	**#1004**	62	52	#677	6	**166**	338	58	181	334	-
7	Sierra College Boulevard & Brace Road	-	217	14	#102	111	-	-	-	27	#93	-	30
8	Sierra College Boulevard & Granite Drive	**269**	**489**	33	102	**#691**	44	**227**	53	47	154	53	-
9	Sierra College Boulevard & I-80 WB Ramps	**314**	215	39	-	**#641**	56	117	-	21	195	256	132
10	Sierra College Boulevard & I-80 EB Ramps	-	275	38	125	187	40	198	120	34	126	-	#293
11	Sierra College Boulevard & Schriber Way	-	-	-	-	-	-	-	-	-	-	-	9
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	8	250	13	43	240	-	15	-	-	46	-	-
13	Sierra College Boulevard & Stadium Dwy	27	142	-	-	115	-	39	-	30	-	-	-
14	Sierra College Boulevard & Rocklin Road	188	**#684**	-	205	251	105	**297**	156	74	91	189	-
15	Pacific Street & Dominguez Road/Delmar Avenue	57	422	-	33	288	-	-	85	44	-	102	13
16	Pacific Street & Rocklin Road	97	370	**533**	183	372	-	83	94	-	**560**	**562**	129
17	Granite Drive & Rocklin Road	**79**	45	-	**347**	346	72	**#363**	369	-	76	513	**333**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	46	200	-	-	#327	89	**#531**	228	-
19	I-80 Eastbound Ramps & Rocklin Road	311	278	113	-	-	-	**#243**	123	-	-	**#584**	-
20	Aguilar Road & Rocklin Road	87	-	4	-	-	-	61	234	-	34	286	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	2	-	-	-
22	Dominguez Road & Granite Driive	3	-	-	-	-	-	15	-	5	-	-	-
23	El Don Drive & Rocklin Road	**159**	31	-	-	127	**99**	244	389	-	46	353	-
24	Sierra College Boulevard & Project Driveway	-	159	30	101	153	-	-	-	-	100	-	37
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	438	25	-	-	-	-	103	68	18	83	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	13	-	-	-	-	-	25	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	3	-	-	30	-
29	Taylor Road & English Colony Way-Rock Springs Road	20	88	-	-	28	13	-	28	15	-	18	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	10	-	-	-	-	-	60	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	8	-	0
33	Taylor Road & First Baptist Church Driveway/Del Oro High School	-	-	-	-	-	-	-	-	-	-	10	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	3	-	-	-	-	-	45	-	5
35	Taylor Road & Rippey Road	3	-	-	-	-	-	5	-	-	-	-	-
36	Taylor Road & Webb Street	25	-	-	-	-	-	-	-	33	-	10	-
37	Project Driveway East & Brace Road	-	0	-	-	-	-	-	-	-	0	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

ExistingP SAT

Intersection	Street Name	95th Percentile Queues											
#	North-South	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	162	159	28	36	114	-	63	56	45	**145**	82	-
2	Taylor Road & Horseshoe Bar Road	23	187	25	**#269**	182	-	-	29	-	-	83	30
3	Horseshoe Bar Road & I-80 Westbound Ramp	**156**	150	-	52	134	65	-	#175	30	87	**99**	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	5	-	-	-	-	-	185	-
5	Barton Road & Brace Road	-	43	-	-	-	-	-	-	-	-	5	-
6	Sierra College Boulevard & Taylor Road	210	344	37	59	#470	-	110	234	59	163	191	-
7	Sierra College Boulevard & Brace Road	-	140	11	#77	96	-	-	-	-	#76	-	3
8	Sierra College Boulevard & Granite Drive	230	310	35	98	446	58	171	46	41	154	48	-
9	Sierra College Boulevard & I-80 WB Ramps	**#464**	160	42	-	**#527**	46	124	-	84	168	320	105
10	Sierra College Boulevard & I-80 EB Ramps	-	145	38	154	119	41	157	121	22	110	-	237
11	Sierra College Boulevard & Schriber Way	-	-	-	-	-	-	-	-	-	-	-	11
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	5	122	24	34	152	-	8	-	-	30	4	-
13	Sierra College Boulevard & Stadium Dwy	16	73	-	-	79	-	14	-	14	-	-	-
14	Sierra College Boulevard & Rocklin Road	82	242	-	121	122	37	143	82	54	58	98	-
15	Pacific Street & Dominguez Road/Delmar Avenue	27	180	-	29	224	22	-	62	5	-	24	9
16	Pacific Street & Rocklin Road	32	201	**194**	107	168	-	69	42	-	228	228	42
17	Granite Drive & Rocklin Road	62	40	-	253	257	63	**#333**	212	-	48	216	96
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	43	61	-	-	154	61	294	67	-
19	I-80 Eastbound Ramps & Rocklin Road	253	243	55	-	-	-	156	81	-	-	249	-
20	Aguilar Road & Rocklin Road	64	-	5	-	-	-	47	118	-	20	122	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	5	-	-	-	-	-	10	-	5	-	-	-
23	El Don Drive & Rocklin Road	82	18	-	-	36	39	49	210	-	41	200	-
24	Sierra College Boulevard & Project Driveway	-	91	100	#185	103	-	-	-	-	124	-	43
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	118	25	-	3	-	-	75	63	175	55	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	3	-	-	-	-	-	13	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	3	-	-	23	-
29	Taylor Road & English Colony Way-Rock Springs Road	38	88	-	3	58	18	-	53	**43**	-	30	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	8	-	-	-	-	-	28	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	-	-	-
33	Taylor Road & First Baptist Church Driveway/Del Oro High School	-	-	-	3	-	-	-	-	-	-	28	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	-	-	-	-	-	-	35	-	5
35	Taylor Road & Rippey Road	5	-	-	-	-	-	5	-	-	-	-	-
36	Taylor Road & Webb Street	18	-	-	-	-	-	-	-	73	-	75	-
37	Project Driveway East & Brace Road	-	3	-	-	-	-	-	-	-	0	-	-

Notes:

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ExistingP AM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0.95%	0.82%	1.23%	0.00%	0.99%	0.00%	0.00%	0.00%	0.89%	0.74%	0.00%	0.00%
2	0.00%	2.11%	0.00%	0.00%	2.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	-	0.00%	0.00%	0.00%	0.00%	-	-	-	-	0.00%	-	0.00%
5	2.94%	-	0.00%	-	-	-	-	0.85%	4.17%	0.00%	1.05%	-
6	4.55%	2.46%	4.35%	0.00%	1.16%	0.00%	0.00%	0.00%	7.95%	3.29%	0.00%	0.00%
7	-	3.64%	0.00%	0.00%	2.71%	0.00%	-	-	0.00%	0.00%	-	2.15%
8	0.00%	19.90%	0.00%	0.00%	12.86%	3.49%	4.05%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0.00%	8.15%	0.00%	-	10.23%	0.00%	0.00%	-	0.00%	0.00%	0.00%	21.53%
10	-	1.30%	0.00%	0.00%	0.99%	26.52%	13.07%	0.00%	0.00%	0.00%	-	0.00%
11	-	1.41%	0.00%	-	0.81%	-	-	-	-	-	-	0.00%
12	-	1.38%	0.00%	0.00%	0.84%	0.00%	0.00%	-	0.00%	0.00%	0.00%	0.00%
13	0.00%	1.44%	-	-	0.95%	0.00%	0.00%	-	0.00%	-	-	-
14	0.00%	1.22%	0.00%	1.12%	1.19%	1.37%	2.27%	0.00%	0.00%	0.00%	0.00%	0.71%
15	0.00%	2.01%	0.00%	0.00%	2.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	0.00%	0.93%	0.38%	0.00%	0.97%	25.00%	14.81%	0.00%	0.00%	0.52%	0.00%	0.00%
17	0.00%	0.00%	0.00%	0.00%	0.00%	3.23%	2.22%	0.00%	0.00%	0.00%	0.00%	0.00%
18	-	-	-	0.00%	-	0.00%	-	0.00%	0.00%	0.00%	0.00%	-
19	0.00%	0.00%	0.00%	-	-	-	0.00%	0.00%	-	-	0.00%	0.00%
20	0.00%	-	3.85%	-	-	-	0.00%	0.00%	0.00%	9.09%	0.00%	-
21	0.00%	3.32%	-	-	2.15%	0.00%	-	-	-	-	-	-
22	0.00%	1.97%	-	-	1.28%	0.00%	0.00%	-	0.00%	-	-	-
23	0.00%	0.00%	5.56%	0.00%	0.00%	0.00%	0.00%	0.14%	0.00%	7.69%	0.25%	0.00%
24	-	-6.55%	100.00%	100.00%	-3.57%	-	-	-	-	100.00%	-	100.00%
25	-	-	-	-	-	-	-	0.00%	-	-	1.02%	-
26	1.41%	-	2.17%	0.00%	-	0.00%	-	0.00%	0.61%	0.69%	0.00%	-
27	-	2.01%	25.00%	0.00%	0.77%	-	-	-	-	50.00%	-	0.00%
28	0.00%	2.01%	3.85%	0.00%	0.75%	0.00%	0.00%	0.00%	0.00%	2.94%	0.00%	0.00%
29	1.23%	0.64%	0.00%	0.00%	0.36%	0.00%	0.00%	0.00%	0.56%	0.00%	0.00%	0.00%
30	0.00%	0.74%	-	-	0.34%	-	-	-	0.00%	-	-	-
31	-	1.14%	0.92%	0.00%	0.57%	-	-	-	-	1.27%	-	0.00%
32	-	1.27%	0.00%	0.00%	0.60%	-	-	-	-	0.00%	-	0.00%
33	0.00%	1.21%	0.00%	0.00%	0.81%	0.00%	-	-	0.00%	0.00%	-	0.00%
34	-	0.94%	0.00%	0.00%	0.75%	-	-	-	-	0.00%	-	0.00%
35	1.79%	0.33%	-	-	0.45%	-	0.00%	-	2.63%	-	-	-
36	0.78%	0.88%	0.00%	0.00%	1.00%	0.00%	-	-	0.54%	0.00%	0.00%	0.00%
37	100.00%	-	100.00%	-	-	-	-	0.00%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

ExistingP PM

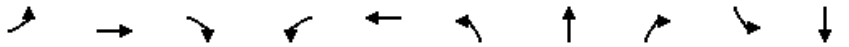
ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	2.07%	2.99%	2.67%	0.00%	3.68%	0.00%	0.00%	0.00%	1.72%	3.45%	0.00%	0.00%
2	0.00%	5.23%	0.00%	0.00%	5.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	-	0.00%	0.00%	0.00%	0.00%	-	-	-	-	0.00%	-	0.00%
5	4.65%	-	0.00%	-	-	-	-	3.28%	6.45%	0.00%	3.05%	-
6	15.33%	2.91%	9.09%	0.00%	4.22%	0.00%	0.00%	0.00%	11.90%	8.28%	0.00%	0.00%
7	-	6.32%	0.00%	6.60%	6.98%	-	-	-	0.00%	0.00%	-	2.75%
8	0.00%	24.93%	0.00%	0.00%	25.53%	10.11%	5.11%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0.00%	12.72%	0.00%	-	20.48%	0.00%	0.00%	-	0.00%	0.00%	0.00%	43.68%
10	-	2.20%	0.00%	0.00%	3.75%	31.63%	21.10%	0.00%	0.00%	0.00%	-	0.00%
11	-	2.21%	0.00%	-	3.11%	-	-	-	-	-	-	0.00%
12	0.00%	2.13%	0.00%	0.00%	3.19%	0.00%	0.00%	-	0.00%	0.00%	-	0.00%
13	0.00%	2.39%	-	-	3.32%	0.00%	0.00%	-	0.00%	-	-	-
14	0.00%	2.06%	0.00%	2.72%	2.95%	3.59%	2.61%	0.00%	0.00%	0.00%	0.00%	2.99%
15	0.00%	3.49%	0.00%	0.00%	4.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	0.00%	1.66%	1.15%	0.00%	1.80%	33.33%	28.57%	0.00%	0.00%	0.92%	0.00%	0.00%
17	0.00%	0.00%	0.00%	0.00%	0.00%	3.98%	4.92%	0.00%	0.00%	0.00%	0.00%	0.00%
18	-	-	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%	0.00%	-
19	0.00%	0.00%	0.00%	-	-	-	0.00%	0.00%	-	-	0.00%	0.00%
20	0.00%	-	9.52%	-	-	-	0.00%	0.00%	0.00%	9.09%	0.00%	-
21	0.00%	5.65%	-	-	5.31%	0.00%	-	-	0.00%	-	-	-
22	0.00%	2.58%	-	-	3.44%	0.00%	0.00%	-	0.00%	-	-	-
23	0.00%	0.00%	14.81%	0.00%	0.00%	0.00%	0.00%	0.33%	0.00%	18.18%	0.33%	0.00%
24	-	-9.82%	100.00%	100.00%	-9.22%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	1.36%	-
26	1.61%	-	3.01%	-	-	-	0.00%	0.00%	3.17%	4.94%	0.00%	-
27	-	1.92%	28.57%	0.00%	3.47%	-	-	-	-	40.00%	-	0.00%
28	0.00%	2.16%	2.82%	0.00%	3.89%	0.00%	0.00%	0.00%	0.00%	6.06%	0.00%	0.00%
29	1.98%	1.89%	0.00%	0.00%	3.10%	0.00%	0.00%	0.00%	2.20%	0.00%	0.00%	0.00%
30	0.00%	1.46%	-	-	2.16%	0.00%	-	-	0.00%	-	-	-
31	-	2.44%	6.25%	0.00%	3.85%	-	-	-	-	4.65%	-	0.00%
32	-	2.79%	0.00%	0.00%	3.06%	-	-	-	-	0.00%	-	0.00%
33	-	2.80%	0.00%	0.00%	2.63%	-	-	-	-	0.00%	-	0.00%
34	-	2.78%	0.00%	0.00%	2.63%	-	-	-	-	0.00%	-	0.00%
35	8.00%	1.91%	-	-	2.16%	0.00%	0.00%	-	6.45%	-	-	-
36	1.96%	2.74%	0.00%	0.00%	2.71%	0.00%	-	-	3.36%	0.00%	0.00%	0.00%
37	100.00%	-	100.00%	-	-	-	-	1.38%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

ExistingP SAT

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	5.82%	8.44%	6.50%	0.00%	8.58%	0.00%	0.00%	0.00%	6.38%	5.13%	0.00%	0.00%
2	0.00%	14.15%	0.00%	0.00%	12.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	-	0.00%	0.00%	0.00%	0.00%	-	-	-	-	0.00%	-	0.00%
5	4.00%	0.00%	0.00%	0.00%	-	0.00%	-	20.00%	3.48%	0.00%	21.05%	-
6	24.07%	10.89%	17.69%	0.00%	10.37%	0.00%	0.00%	0.00%	25.47%	17.78%	0.00%	0.00%
7	-	16.74%	0.00%	16.48%	15.92%	-	-	-	0.00%	0.00%	-	9.84%
8	0.00%	44.57%	0.00%	0.00%	37.84%	14.66%	13.33%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0.00%	24.08%	0.00%	-	30.05%	0.00%	0.00%	-	0.00%	0.00%	0.00%	56.22%
10	-	7.95%	0.00%	0.00%	10.18%	48.59%	24.19%	0.00%	0.00%	0.00%	-	0.00%
11	-	8.10%	0.00%	-	7.92%	-	-	-	-	-	-	0.00%
12	0.00%	7.57%	0.00%	0.00%	8.36%	0.00%	0.00%	-	0.00%	0.00%	0.00%	0.00%
13	0.00%	7.20%	-	-	7.82%	0.00%	0.00%	-	0.00%	-	-	-
14	0.00%	6.85%	0.00%	6.36%	7.76%	10.89%	8.76%	0.00%	0.00%	0.00%	0.00%	6.67%
15	0.00%	11.45%	0.00%	0.00%	8.59%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	0.00%	4.51%	3.65%	0.00%	5.00%	50.00%	47.73%	0.00%	0.00%	2.98%	0.00%	0.00%
17	0.00%	0.00%	0.00%	0.00%	0.00%	8.76%	9.42%	0.00%	0.00%	0.00%	0.00%	0.00%
18	-	-	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%	0.00%	-
19	0.00%	0.00%	0.00%	-	-	-	0.00%	0.00%	-	-	0.00%	0.00%
20	0.00%	-	20.00%	-	-	-	0.00%	0.00%	0.00%	25.00%	0.00%	-
21	0.00%	14.85%	-	-	12.69%	-	-	-	-	-	-	-
22	0.00%	4.66%	-	-	5.56%	0.00%	0.00%	-	0.00%	-	-	-
23	0.00%	0.00%	34.78%	0.00%	0.00%	0.00%	0.00%	0.80%	0.00%	26.92%	0.75%	0.00%
24	-	-20.64%	100.00%	100.00%	-15.81%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	3.45%	-
26	6.36%	0.00%	7.41%	0.00%	0.00%	0.00%	0.00%	0.00%	7.80%	2.67%	0.00%	0.00%
27	-	6.56%	80.00%	0.00%	7.99%	-	-	-	-	40.00%	-	0.00%
28	0.00%	7.34%	13.33%	0.00%	8.37%	0.00%	0.00%	0.00%	0.00%	8.51%	0.00%	0.00%
29	4.21%	6.02%	0.00%	0.00%	6.25%	0.00%	0.00%	0.00%	3.39%	0.00%	0.00%	0.00%
30	0.00%	3.94%	-	-	4.41%	0.00%	0.00%	-	0.00%	-	-	-
31	-	6.21%	12.90%	0.00%	7.55%	-	-	-	-	10.26%	-	0.00%
32	-	6.25%	0.00%	-	6.12%	-	-	-	-	0.00%	-	0.00%
33	0.00%	6.52%	0.00%	0.00%	6.52%	-	-	-	0.00%	0.00%	-	0.00%
34	-	6.00%	0.00%	0.00%	5.80%	-	-	-	-	0.00%	-	0.00%
35	12.12%	5.14%	-	-	5.93%	0.00%	-	-	19.05%	-	-	-
36	7.21%	7.90%	0.00%	0.00%	7.08%	0.00%	-	-	5.37%	0.00%	0.00%	0.00%
37	100.00%	-	100.00%	-	-	-	-	3.49%	100.00%	100.00%	0.00%	-



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	197	136	259	156	297	243	418	93	46	478
v/c Ratio	0.64	0.45	0.56	0.41	0.75	0.68	0.62	0.16	0.33	0.70
Control Delay	49.7	43.6	10.1	38.7	46.3	48.7	33.3	6.6	55.3	40.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	43.6	10.1	38.7	46.3	48.7	33.3	6.6	55.3	40.8
Queue Length 50th (ft)	113	75	0	82	152	137	216	0	27	133
Queue Length 95th (ft)	213	152	62	168	295	267	384	34	73	220
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	550	542	632	545	552	487	843	726	516	1500
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.25	0.41	0.29	0.54	0.50	0.50	0.13	0.09	0.32

Intersection Summary

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	66	62	527	2	357	59	460	374
v/c Ratio	0.23	0.21	0.59	0.01	0.60	0.11	0.75	0.27
Control Delay	19.7	22.2	6.3	25.0	19.3	4.4	29.0	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	22.2	6.3	25.0	19.3	4.4	29.0	4.8
Queue Length 50th (ft)	14	16	23	1	91	0	124	32
Queue Length 95th (ft)	48	50	99	7	173	18	#349	122
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	759	775	893	641	1439	1187	616	1423
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.08	0.59	0.00	0.25	0.05	0.75	0.26

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	99	133	55	86	182	631	20	241	398
v/c Ratio	0.73	0.20	0.32	0.47	0.67	0.45	0.17	0.53	0.64
Control Delay	67.7	6.8	48.4	44.8	51.8	20.4	50.7	33.5	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	6.8	48.4	44.8	51.8	20.4	50.7	33.5	11.7
Queue Length 50th (ft)	50	0	30	37	99	120	11	116	34
Queue Length 95th (ft)	#194	48	81	100	207	212	41	211	132
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	135	651	532	527	426	1747	434	871	906
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.20	0.10	0.16	0.43	0.36	0.05	0.28	0.44

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	66	183	94	227	190	22	164	303	171	30	640	117
v/c Ratio	0.42	0.58	0.24	0.55	0.48	0.05	0.65	0.35	0.16	0.24	0.98	0.18
Control Delay	54.6	47.5	1.4	48.8	40.9	0.2	54.2	21.4	2.0	53.3	67.3	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	47.5	1.4	48.8	40.9	0.2	54.2	21.4	2.0	53.3	67.3	2.0
Queue Length 50th (ft)	40	109	0	71	109	0	100	129	0	18	401	0
Queue Length 95th (ft)	96	202	0	127	203	0	190	251	29	55	#842	16
Internal Link Dist (ft)		429			1915			582			10000	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	339	536	559	855	608	609	409	854	1239	346	650	666
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.34	0.17	0.27	0.31	0.04	0.40	0.35	0.14	0.09	0.98	0.18

Intersection Summary

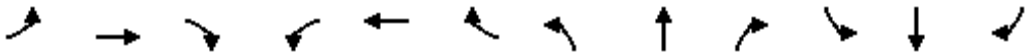
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	111	111	99	555	53	135	827
v/c Ratio	0.34	0.43	0.21	0.37	0.05	0.61	0.38
Control Delay	3.0	27.0	3.5	14.8	0.7	34.4	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.0	27.0	3.5	14.8	0.7	34.4	7.8
Queue Length 50th (ft)	0	32	0	74	0	40	76
Queue Length 95th (ft)	3	75	19	116	5	#91	112
Internal Link Dist (ft)				219			582
Turn Bay Length (ft)		100				170	
Base Capacity (vph)	323	284	597	1591	1052	297	2236
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.39	0.17	0.35	0.05	0.45	0.37

Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	77	24	114	155	43	29	234	613	118	93	940	90
v/c Ratio	0.44	0.19	0.40	0.59	0.21	0.11	0.66	0.38	0.15	0.48	0.70	0.14
Control Delay	55.8	55.5	14.8	52.6	48.5	0.9	49.1	18.6	3.7	55.1	30.7	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.8	55.5	14.8	52.6	48.5	0.9	49.1	18.6	3.7	55.1	30.7	7.1
Queue Length 50th (ft)	47	15	0	94	25	0	139	126	0	57	259	3
Queue Length 95th (ft)	114	49	33	194	70	0	269	217	33	131	434	40
Internal Link Dist (ft)		707			401			403			598	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	503	535	831	503	530	525	784	2575	1221	339	1794	839
Starvation Cap Reductn	0	0	0	0	0	0	0	457	0	0	16	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.04	0.14	0.31	0.08	0.06	0.30	0.29	0.10	0.27	0.53	0.11

Intersection Summary

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	5	70	669	200	186	84	742	159	1246	42
v/c Ratio	0.04	0.30	0.77	0.50	0.39	0.48	0.25	0.17	0.60	0.05
Control Delay	36.8	9.2	32.1	22.2	7.4	41.7	7.4	1.9	18.0	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	9.2	32.1	22.2	7.4	41.7	7.4	1.9	18.0	1.3
Queue Length 50th (ft)	2	0	136	50	0	35	50	0	147	0
Queue Length 95th (ft)	14	21	220	144	55	87	89	24	248	7
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	494	671	2773	775	784	713	4599	1352	2221	815
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.10	0.24	0.26	0.24	0.12	0.16	0.12	0.56	0.05

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	405	108	210	45	108	882	23	198	1162	264
v/c Ratio	0.42	0.17	0.47	0.18	0.32	0.57	0.05	0.37	0.65	0.30
Control Delay	16.5	22.8	8.6	25.2	9.1	18.7	0.2	23.3	11.8	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.5	22.8	8.6	25.2	9.1	18.7	0.2	23.3	11.8	2.3
Queue Length 50th (ft)	48	16	0	12	1	68	0	28	128	0
Queue Length 95th (ft)	93	40	48	42	36	111	0	61	211	27
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	3022	2457	1120	1397	845	4994	1338	1719	3539	1482
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.04	0.19	0.03	0.13	0.18	0.02	0.12	0.33	0.18

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	3	1	45	1	5	904	28	44	1494	4
v/c Ratio	0.03	0.00	0.15	0.01	0.03	0.30	0.03	0.26	0.55	0.00
Control Delay	33.0	0.0	31.8	32.0	0.2	9.9	0.0	32.8	5.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	0.0	31.8	32.0	0.2	9.9	0.0	32.8	5.9	0.0
Queue Length 50th (ft)	1	0	9	0	0	70	0	17	109	0
Queue Length 95th (ft)	9	0	24	5	0	127	0	46	238	0
Internal Link Dist (ft)		226		372		197			363	
Turn Bay Length (ft)	190		285		185		45	245		340
Base Capacity (vph)	515	1085	1259	1084	773	4188	1280	1128	3471	1189
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.00	0.04	0.00	0.01	0.22	0.02	0.04	0.43	0.00

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	29	11	96	912	1784
v/c Ratio	0.11	0.08	0.42	0.30	0.56
Control Delay	39.6	22.5	40.9	1.8	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	39.6	22.5	40.9	1.8	8.6
Queue Length 50th (ft)	7	0	47	47	176
Queue Length 95th (ft)	19	13	85	53	185
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	70	90	215		
Base Capacity (vph)	1708	832	924	3438	3701
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.02	0.01	0.10	0.27	0.48

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	106	246	243	117	479	461	789	107	711	176
v/c Ratio	0.49	0.33	0.47	0.50	0.63	0.60	0.69	0.51	0.57	0.37
Control Delay	56.4	39.3	8.5	55.4	39.3	43.2	35.4	56.6	38.5	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	39.3	8.5	55.4	39.3	43.2	35.4	56.6	38.5	14.7
Queue Length 50th (ft)	67	73	0	74	135	144	237	68	153	26
Queue Length 95th (ft)	142	130	50	153	222	234	363	142	231	84
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	496	1718	862	788	2126	1346	1777	469	2179	729
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.14	0.28	0.15	0.23	0.34	0.44	0.23	0.33	0.24

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	56	78	96	34	101	452	33	369	44
v/c Ratio	0.26	0.26	0.32	0.10	0.32	0.42	0.17	0.41	0.06
Control Delay	25.9	9.4	25.7	4.6	25.4	11.0	27.1	15.3	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.9	9.4	25.7	4.6	25.4	11.0	27.1	15.3	4.2
Queue Length 50th (ft)	15	0	27	0	28	58	9	91	0
Queue Length 95th (ft)	54	33	79	13	82	222	38	194	16
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	696	790	945	919	979	1502	793	1573	1278
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.10	0.10	0.04	0.10	0.30	0.04	0.23	0.03

Intersection Summary

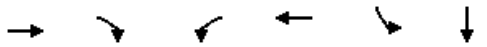
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	30	197	280	290	94	50	480	590	156	475
v/c Ratio	0.21	0.52	0.67	0.68	0.21	0.34	0.43	0.81	0.59	0.33
Control Delay	64.3	40.8	51.7	52.0	10.3	68.1	33.0	26.6	62.3	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	40.8	51.7	52.0	10.3	68.1	33.0	26.6	62.3	24.8
Queue Length 50th (ft)	21	44	195	204	2	36	144	192	109	125
Queue Length 95th (ft)	69	112	397	410	50	102	263	464	244	225
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	405	928	936	956	917	332	1915	1015	569	2308
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.21	0.30	0.30	0.10	0.15	0.25	0.58	0.27	0.21

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	155	876	20	694	603	14	25	153	155	107
v/c Ratio	0.74	0.60	0.21	0.68	0.84	0.03	0.05	0.65	0.65	0.34
Control Delay	76.5	32.5	65.9	43.0	25.5	38.4	30.6	64.5	64.3	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.5	32.5	65.9	43.0	25.5	38.4	30.6	64.5	64.3	10.6
Queue Length 50th (ft)	121	265	16	260	171	8	11	123	125	0
Queue Length 95th (ft)	#245	417	45	341	330	28	36	205	207	43
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	221	1471	282	1432	846	511	459	449	455	501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.60	0.07	0.48	0.71	0.03	0.05	0.34	0.34	0.21

Intersection Summary

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



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	734	482	396	1128	51	237
v/c Ratio	0.51	0.53	0.81	0.43	0.20	0.76
Control Delay	23.7	5.1	42.7	5.4	31.4	35.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	5.1	42.7	5.4	31.4	35.6
Queue Length 50th (ft)	153	0	200	96	25	73
Queue Length 95th (ft)	#289	75	270	182	50	135
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1446	904	546	2614	523	536
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.53	0.73	0.43	0.10	0.44

Intersection Summary

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

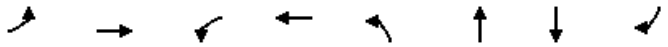
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	196	580	874	567	535	519
v/c Ratio	0.76	0.31	0.74	0.91	0.77	0.72
Control Delay	53.8	12.4	30.4	47.2	22.7	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	12.4	30.4	47.2	22.7	18.4
Queue Length 50th (ft)	102	90	224	300	167	130
Queue Length 95th (ft)	#177	124	301	#508	#317	260
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	303	1861	1187	633	701	728
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.31	0.74	0.90	0.76	0.71

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	56	1519	13	743	161	30
v/c Ratio	0.26	0.66	0.09	0.37	0.51	0.10
Control Delay	32.8	10.4	33.6	10.5	31.9	3.7
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	32.8	10.5	33.6	10.5	31.9	3.7
Queue Length 50th (ft)	19	147	4	92	53	0
Queue Length 95th (ft)	63	386	24	158	136	8
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	685	2681	571	2687	665	564
Starvation Cap Reductn	0	254	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.63	0.02	0.28	0.24	0.05

Intersection Summary

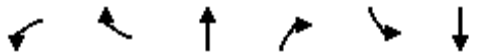


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	570	797	14	581	164	34	17	68
v/c Ratio	0.97	0.38	0.08	0.64	0.54	0.11	0.17	0.33
Control Delay	65.0	15.3	41.2	33.3	43.2	20.4	50.3	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.0	15.3	41.2	33.3	43.2	20.4	50.3	8.7
Queue Length 50th (ft)	328	104	8	149	90	7	10	0
Queue Length 95th (ft)	#765	347	27	253	167	34	36	23
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	588	2342	588	2273	588	577	466	591
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.34	0.02	0.26	0.28	0.06	0.04	0.12

Intersection Summary

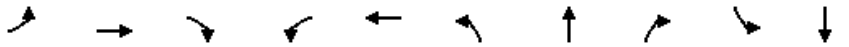
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

24: Sierra College Blvd & Project Driveway



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	166	59	580	168	59	1005
v/c Ratio	0.29	0.19	0.20	0.12	0.29	0.44
Control Delay	17.7	7.2	7.0	0.8	22.4	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	7.2	7.0	0.8	22.4	5.2
Queue Length 50th (ft)	19	0	17	0	14	54
Queue Length 95th (ft)	38	21	58	10	41	101
Internal Link Dist (ft)	551		598			344
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1308	639	2838	1513	206	2281
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.09	0.20	0.11	0.29	0.44

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	66	133	392	130	166	326	376	169	54	397
v/c Ratio	0.27	0.52	0.71	0.50	0.62	0.63	0.48	0.23	0.34	0.66
Control Delay	36.3	41.7	11.7	40.8	41.4	33.9	22.7	4.5	44.5	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.3	41.7	11.7	40.8	41.4	33.9	22.7	4.5	44.5	36.0
Queue Length 50th (ft)	30	63	0	61	71	139	138	0	26	92
Queue Length 95th (ft)	75	134	81	130	152	#329	290	42	71	161
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	601	639	795	607	609	521	922	823	563	1679
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.21	0.49	0.21	0.27	0.63	0.41	0.21	0.10	0.24

Intersection Summary

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

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	58	91	479	23	488	85	413	522
v/c Ratio	0.20	0.36	0.59	0.13	0.73	0.14	0.78	0.38
Control Delay	20.2	28.7	9.6	30.7	23.6	4.7	37.0	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	28.7	9.6	30.7	23.6	4.7	37.0	6.6
Queue Length 50th (ft)	12	28	44	8	145	2	132	57
Queue Length 95th (ft)	47	79	161	32	265	25	#396	219
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	643	559	811	542	1233	1022	532	1356
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.16	0.59	0.04	0.40	0.08	0.78	0.38

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	115	81	112	101	112	606	49	203	354
v/c Ratio	0.73	0.12	0.52	0.39	0.54	0.60	0.32	0.48	0.57
Control Delay	59.4	7.3	47.5	23.9	48.1	27.0	47.2	32.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	7.3	47.5	23.9	48.1	27.0	47.2	32.5	7.9
Queue Length 50th (ft)	52	0	56	20	56	139	25	92	7
Queue Length 95th (ft)	#203	37	131	77	131	217	72	177	78
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	157	661	563	576	437	1731	454	929	965
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.12	0.20	0.18	0.26	0.35	0.11	0.22	0.37

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	127	298	189	326	307	49	154	772	297	26	506	108
v/c Ratio	0.60	0.73	0.38	0.65	0.66	0.10	0.65	0.96	0.28	0.24	0.87	0.18
Control Delay	61.6	53.6	7.9	53.5	46.7	0.4	61.3	58.1	3.7	60.6	55.7	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	53.6	7.9	53.5	46.7	0.4	61.3	58.1	3.7	60.6	55.7	1.4
Queue Length 50th (ft)	90	201	0	119	200	0	109	~639	19	19	356	0
Queue Length 95th (ft)	166	338	58	181	334	0	193	#1004	62	52	#677	6
Internal Link Dist (ft)		429			1915			582			10000	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	319	495	562	760	583	560	384	805	1169	296	583	595
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.60	0.34	0.43	0.53	0.09	0.40	0.96	0.25	0.09	0.87	0.18

Intersection Summary

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

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

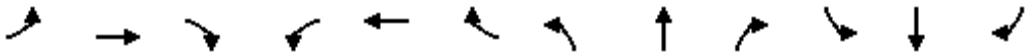
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	148	117	114	1022	121	110	835
v/c Ratio	0.48	0.49	0.24	0.55	0.10	0.62	0.36
Control Delay	7.9	32.4	5.5	14.7	1.3	43.9	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	32.4	5.5	14.7	1.3	43.9	6.9
Queue Length 50th (ft)	0	41	0	155	0	39	77
Queue Length 95th (ft)	27	#93	30	217	14	#102	111
Internal Link Dist (ft)				216			582
Turn Bay Length (ft)		100				170	
Base Capacity (vph)	308	259	566	1868	1167	209	2341
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.45	0.20	0.55	0.10	0.53	0.36

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	187	28	306	114	26	35	232	1216	73	65	1254	95
v/c Ratio	0.61	0.16	0.56	0.56	0.22	0.19	0.73	0.60	0.08	0.42	0.79	0.13
Control Delay	54.8	51.7	10.0	60.1	59.0	2.4	57.9	19.9	5.9	60.5	33.3	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.3	0.0
Total Delay	54.8	51.7	10.0	60.1	59.0	2.4	57.9	20.3	5.9	60.5	33.7	7.3
Queue Length 50th (ft)	129	19	0	79	18	0	159	306	5	45	400	5
Queue Length 95th (ft)	227	53	47	154	53	0	269	489	33	102	#691	44
Internal Link Dist (ft)		707			508			403			598	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	485	491	958	471	491	475	693	2379	1059	317	1586	752
Starvation Cap Reductn	0	0	0	0	0	0	0	570	0	0	60	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.06	0.32	0.24	0.05	0.07	0.33	0.67	0.07	0.21	0.82	0.13

Intersection Summary

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

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	82	120	485	248	233	289	1113	279	1564	100
v/c Ratio	0.54	0.23	0.50	0.78	0.59	0.80	0.36	0.26	0.88	0.16
Control Delay	61.2	3.7	30.9	50.8	19.4	56.7	11.5	2.1	39.3	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	3.7	30.9	50.8	19.4	56.7	11.5	2.1	39.3	10.9
Queue Length 50th (ft)	51	0	128	133	38	176	123	0	342	9
Queue Length 95th (ft)	117	21	195	256	132	314	215	39	#641	56
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	375	680	2106	609	637	558	3628	1218	1782	632
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.18	0.23	0.41	0.37	0.52	0.31	0.23	0.88	0.16

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	519	237	63	111	327	1386	93	295	842	536
v/c Ratio	0.52	0.55	0.25	0.51	0.76	0.74	0.17	0.36	0.41	0.46
Control Delay	27.9	41.7	11.6	46.5	37.1	29.2	7.4	29.0	10.0	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.9	41.7	11.6	46.5	37.1	29.2	7.4	29.0	10.0	2.2
Queue Length 50th (ft)	114	60	0	54	119	184	2	62	107	0
Queue Length 95th (ft)	198	120	34	126	#293	275	38	125	187	40
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	2196	1616	747	914	559	3619	967	1109	3091	1473
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.15	0.08	0.12	0.58	0.38	0.10	0.27	0.27	0.36

Intersection Summary

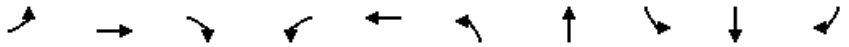
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	5	1	82	12	2	1479	61	28	1022	1
v/c Ratio	0.03	0.00	0.24	0.02	0.01	0.44	0.06	0.18	0.40	0.00
Control Delay	37.2	0.0	34.5	0.0	37.5	8.1	1.8	36.7	6.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.2	0.0	34.5	0.0	37.5	8.1	1.8	36.7	6.4	0.0
Queue Length 50th (ft)	2	0	15	0	1	63	0	11	62	0
Queue Length 95th (ft)	15	0	46	0	8	250	13	43	240	0
Internal Link Dist (ft)		226				199			363	
Turn Bay Length (ft)	190		285	185	90		45	245		340
Base Capacity (vph)	741	1046	1343	1170	741	4175	1314	1323	3529	1562
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.00	0.06	0.01	0.00	0.35	0.05	0.02	0.29	0.00

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	125	78	27	1275	1022
v/c Ratio	0.23	0.25	0.12	0.56	0.37
Control Delay	20.2	8.5	21.7	6.3	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	8.5	21.7	6.3	8.1
Queue Length 50th (ft)	14	0	6	86	38
Queue Length 95th (ft)	39	30	27	142	115
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	70	90	215		
Base Capacity (vph)	2790	1302	1437	3539	5034
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.04	0.06	0.02	0.36	0.20

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	247	324	369	55	382	330	1036	158	729	180
v/c Ratio	0.63	0.28	0.48	0.36	0.63	0.56	1.02	0.60	0.54	0.37
Control Delay	49.4	30.5	5.6	59.8	41.4	48.0	74.7	56.9	38.8	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	30.5	5.6	59.8	41.4	48.0	74.7	56.9	38.8	15.1
Queue Length 50th (ft)	156	90	0	37	109	111	~433	106	166	30
Queue Length 95th (ft)	297	156	74	91	189	188	#684	205	251	105
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	487	1593	912	738	1935	1248	1758	483	2081	696
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.20	0.40	0.07	0.20	0.26	0.59	0.33	0.35	0.26

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	92	131	113	35	49	700	22	512	13
v/c Ratio	0.37	0.33	0.46	0.11	0.24	0.65	0.11	0.52	0.02
Control Delay	29.9	8.1	32.5	4.5	32.5	14.7	33.2	14.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	8.1	32.5	4.5	32.5	14.7	33.2	14.5	0.1
Queue Length 50th (ft)	29	0	36	0	16	124	7	139	0
Queue Length 95th (ft)	85	44	102	13	57	422	33	288	0
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	633	818	619	742	764	1449	864	1457	1088
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.16	0.18	0.05	0.06	0.48	0.03	0.35	0.01

Intersection Summary

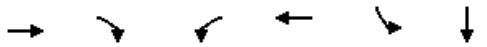
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	37	113	409	412	221	46	641	553	105	686
v/c Ratio	0.28	0.42	0.75	0.75	0.36	0.36	0.53	0.80	0.54	0.48
Control Delay	73.9	63.6	51.9	51.6	14.6	76.8	37.9	34.0	74.3	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.9	63.6	51.9	51.6	14.6	76.8	37.9	34.0	74.3	32.7
Queue Length 50th (ft)	32	45	343	344	45	40	236	276	91	240
Queue Length 95th (ft)	83	94	560	562	129	97	370	533	183	372
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	388	766	814	824	842	288	1682	871	505	2101
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.15	0.50	0.50	0.26	0.16	0.38	0.63	0.21	0.33

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	191	696	38	888	434	51	31	255	255	235
v/c Ratio	0.95	0.53	0.36	0.83	0.73	0.11	0.07	0.77	0.76	0.47
Control Delay	114.5	38.4	75.0	53.9	29.1	44.6	32.1	69.4	68.8	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	114.5	38.4	75.0	53.9	29.1	44.6	32.1	69.4	68.8	8.6
Queue Length 50th (ft)	181	270	35	399	179	37	14	240	238	0
Queue Length 95th (ft)	#363	369	76	513	333	79	45	347	346	72
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	200	1308	258	1284	669	454	460	423	426	574
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.53	0.15	0.69	0.65	0.11	0.07	0.60	0.60	0.41

Intersection Summary

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



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	719	497	569	1126	45	315
v/c Ratio	0.69	0.62	0.90	0.46	0.13	0.82
Control Delay	35.7	6.8	47.9	7.4	29.1	41.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	6.8	47.9	7.4	29.1	41.8
Queue Length 50th (ft)	206	0	298	129	22	125
Queue Length 95th (ft)	#327	89	#531	228	46	200
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1046	807	645	2464	503	512
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.62	0.88	0.46	0.09	0.62

Intersection Summary

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

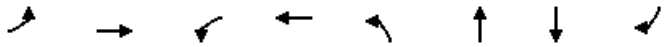
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	220	570	1308	386	377	354
v/c Ratio	0.82	0.27	0.89	0.77	0.74	0.55
Control Delay	63.7	10.1	37.1	40.1	32.0	9.6
Queue Delay	0.0	0.0	1.2	0.0	0.0	0.0
Total Delay	63.7	10.1	38.3	40.1	32.0	9.6
Queue Length 50th (ft)	126	82	402	214	175	37
Queue Length 95th (ft)	#243	123	#584	311	278	113
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	286	2147	1462	586	586	713
Starvation Cap Reductn	0	0	46	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.27	0.92	0.66	0.64	0.50

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	57	1130	24	1227	95	23
v/c Ratio	0.23	0.47	0.11	0.54	0.33	0.08
Control Delay	30.4	8.2	31.3	11.1	29.8	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	8.2	31.3	11.1	29.8	1.8
Queue Length 50th (ft)	19	77	8	170	31	0
Queue Length 95th (ft)	61	234	34	286	87	4
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	827	2828	827	2888	796	736
Starvation Cap Reductn	0	314	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.45	0.03	0.42	0.12	0.03

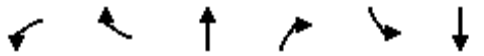
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	195	794	24	701	126	32	85	379
v/c Ratio	0.59	0.49	0.11	0.63	0.45	0.11	0.46	0.70
Control Delay	45.7	22.3	42.3	31.1	43.9	16.8	50.9	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	22.3	42.3	31.1	43.9	16.8	50.9	12.5
Queue Length 50th (ft)	96	115	12	163	63	1	42	0
Queue Length 95th (ft)	244	389	46	353	159	31	127	99
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	629	2454	629	2495	629	590	484	806
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.32	0.04	0.28	0.20	0.05	0.18	0.47

Intersection Summary

24: Sierra College Blvd & Project Driveway



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	437	175	1029	421	154	1014
v/c Ratio	0.52	0.34	0.51	0.34	0.53	0.48
Control Delay	20.5	5.2	16.2	1.7	29.2	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	5.2	16.2	1.7	29.2	7.9
Queue Length 50th (ft)	64	0	102	7	47	87
Queue Length 95th (ft)	100	37	159	30	101	153
Internal Link Dist (ft)	597		598			348
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1114	631	2000	1310	335	2105
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.28	0.51	0.32	0.46	0.48

Intersection Summary

Queues
1: Taylor Rd & King Rd

07/01/2019

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	62	54	232	193	108	233	278	152	27	332
v/c Ratio	0.31	0.27	0.60	0.57	0.32	0.57	0.35	0.21	0.17	0.53
Control Delay	35.6	34.8	12.4	34.0	26.6	30.3	17.1	4.3	36.4	29.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	34.8	12.4	34.0	26.6	30.3	17.1	4.3	36.4	29.4
Queue Length 50th (ft)	23	20	0	70	33	82	62	0	10	61
Queue Length 95th (ft)	63	56	45	145	82	162	159	28	36	114
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	728	727	798	779	760	689	1160	978	716	2146
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.07	0.29	0.25	0.14	0.34	0.24	0.16	0.04	0.15

Intersection Summary

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	36	116	295	17	369	98	356	461
v/c Ratio	0.13	0.43	0.33	0.09	0.64	0.18	0.63	0.36
Control Delay	17.8	26.7	2.4	27.3	22.1	4.7	26.4	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	26.7	2.4	27.3	22.1	4.7	26.4	7.0
Queue Length 50th (ft)	8	33	0	5	101	0	97	49
Queue Length 95th (ft)	29	83	30	23	187	25	#269	182
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	667	574	891	579	1338	1098	568	1325
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.20	0.33	0.03	0.28	0.09	0.63	0.35

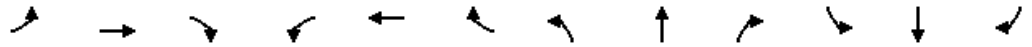
Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	112	65	72	106	154	458	34	151	353
v/c Ratio	0.65	0.10	0.39	0.50	0.61	0.45	0.25	0.46	0.61
Control Delay	47.3	7.1	42.9	36.8	44.8	23.6	44.1	34.2	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.3	7.1	42.9	36.8	44.8	23.6	44.1	34.2	8.4
Queue Length 50th (ft)	39	0	31	34	67	93	15	65	0
Queue Length 95th (ft)	#175	30	87	99	156	150	52	134	65
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	171	635	564	578	460	1788	452	942	995
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.10	0.13	0.18	0.33	0.26	0.08	0.16	0.35

Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	74	207	171	287	179	26	172	371	277	31	400	63
v/c Ratio	0.42	0.56	0.39	0.58	0.36	0.05	0.63	0.47	0.25	0.23	0.74	0.11
Control Delay	55.7	45.4	8.8	47.7	36.2	0.2	53.4	26.1	1.9	55.2	43.9	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	45.4	8.8	47.7	36.2	0.2	53.4	26.1	1.9	55.2	43.9	0.4
Queue Length 50th (ft)	46	123	0	91	99	0	106	178	0	19	227	0
Queue Length 95th (ft)	110	234	59	163	191	0	210	344	37	59	#470	0
Internal Link Dist (ft)		429			1915			582			10000	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	366	590	609	906	685	662	445	825	1254	377	681	679
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.35	0.28	0.32	0.26	0.04	0.39	0.45	0.22	0.08	0.59	0.09

Intersection Summary

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

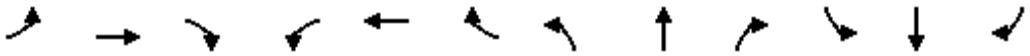
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	118	64	728	93	95	746
v/c Ratio	0.19	0.42	0.13	0.42	0.08	0.51	0.35
Control Delay	1.1	24.7	0.9	12.5	1.3	32.6	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.1	24.7	0.9	12.5	1.3	32.6	7.2
Queue Length 50th (ft)	0	33	0	92	0	27	64
Queue Length 95th (ft)	0	#76	3	140	11	#77	96
Internal Link Dist (ft)				217			582
Turn Bay Length (ft)		100				170	
Base Capacity (vph)	373	289	627	1771	1214	216	2378
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.41	0.10	0.41	0.08	0.44	0.31

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	141	24	213	123	25	24	206	921	102	67	1041	121
v/c Ratio	0.51	0.16	0.51	0.55	0.21	0.12	0.67	0.47	0.11	0.41	0.66	0.16
Control Delay	50.1	51.6	11.5	54.5	54.5	1.3	52.6	16.4	4.6	55.4	26.2	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	50.1	51.6	11.5	54.5	54.5	1.3	52.6	16.5	4.6	55.4	26.3	8.5
Queue Length 50th (ft)	88	15	0	77	16	0	128	191	5	42	272	14
Queue Length 95th (ft)	171	46	41	154	48	0	230	310	35	98	446	58
Internal Link Dist (ft)		707			495			403			597	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	510	537	970	515	517	538	766	2602	1172	343	1735	815
Starvation Cap Reductn	0	0	0	0	0	0	0	575	0	0	19	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.04	0.22	0.24	0.05	0.04	0.27	0.45	0.09	0.20	0.61	0.15

Intersection Summary

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	83	302	424	292	265	354	766	255	1310	85
v/c Ratio	0.58	0.51	0.41	0.83	0.56	0.83	0.25	0.24	0.81	0.15
Control Delay	68.9	11.1	30.7	58.8	12.4	59.6	12.2	2.4	41.2	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.9	11.1	30.7	58.8	12.4	59.6	12.2	2.4	41.2	9.7
Queue Length 50th (ft)	60	45	124	196	20	242	91	0	328	3
Queue Length 95th (ft)	124	84	168	320	105	#464	160	42	#527	46
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	339	655	1917	552	627	508	3303	1108	1623	583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.46	0.22	0.53	0.42	0.70	0.23	0.23	0.81	0.15

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	507	290	52	110	345	765	93	445	567	439
v/c Ratio	0.44	0.55	0.18	0.46	0.75	0.60	0.23	0.52	0.31	0.43
Control Delay	20.8	34.1	7.2	38.6	31.1	28.3	8.3	25.7	10.3	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	34.1	7.2	38.6	31.1	28.3	8.3	25.7	10.3	2.5
Queue Length 50th (ft)	86	61	0	45	104	86	0	82	65	0
Queue Length 95th (ft)	157	121	22	110	237	145	38	154	119	41
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	2547	1837	839	1071	646	4078	1109	1285	3335	1499
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.16	0.06	0.10	0.53	0.19	0.08	0.35	0.17	0.29

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	3	3	72	1	19	1	803	79	32	691	5
v/c Ratio	0.01	0.01	0.14	0.00	0.06	0.00	0.27	0.08	0.13	0.30	0.00
Control Delay	23.3	0.0	21.1	22.0	0.4	24.0	9.2	4.1	22.1	7.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	0.0	21.1	22.0	0.4	24.0	9.2	4.1	22.1	7.5	0.0
Queue Length 50th (ft)	1	0	7	0	0	0	27	0	7	35	0
Queue Length 95th (ft)	8	0	30	4	0	5	122	24	34	152	0
Internal Link Dist (ft)		226		372			193			363	
Turn Bay Length (ft)	190		285		185	90		45	245		340
Base Capacity (vph)	1228	1442	2292	1625	1394	1228	4992	1571	1611	3539	1581
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.00	0.03	0.00	0.01	0.00	0.16	0.05	0.02	0.20	0.00

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	40	22	16	891	807
v/c Ratio	0.08	0.08	0.06	0.32	0.22
Control Delay	17.6	9.9	18.1	3.4	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	9.9	18.1	3.4	4.8
Queue Length 50th (ft)	5	0	4	44	25
Queue Length 95th (ft)	14	14	16	73	79
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	70	90	215		
Base Capacity (vph)	3111	1479	1651	3539	5012
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.01	0.01	0.01	0.25	0.16

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	143	192	193	42	290	172	638	115	510	105
v/c Ratio	0.51	0.20	0.34	0.25	0.51	0.34	0.58	0.46	0.33	0.20
Control Delay	40.8	27.2	6.7	42.2	25.3	35.6	27.1	41.3	23.5	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	27.2	6.7	42.2	25.3	35.6	27.1	41.3	23.5	6.3
Queue Length 50th (ft)	69	44	0	21	47	41	141	56	72	0
Queue Length 95th (ft)	143	82	54	58	98	82	242	121	122	37
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	662	2206	1038	993	2639	1679	2405	662	2853	891
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.09	0.19	0.04	0.11	0.10	0.27	0.17	0.18	0.12

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	72	23	20	29	20	407	23	499	69
v/c Ratio	0.27	0.07	0.07	0.08	0.08	0.37	0.10	0.40	0.07
Control Delay	23.5	2.1	20.9	3.5	24.6	10.1	24.4	8.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	2.1	20.9	3.5	24.6	10.1	24.4	8.4	3.6
Queue Length 50th (ft)	14	0	4	0	4	46	5	60	2
Queue Length 95th (ft)	62	5	24	9	27	180	29	224	22
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	894	1019	1000	1046	1107	1656	986	1716	1432
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.02	0.02	0.03	0.02	0.25	0.02	0.29	0.05

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	47	74	232	232	107	15	496	350	86	469
v/c Ratio	0.25	0.20	0.56	0.56	0.23	0.10	0.51	0.61	0.38	0.32
Control Delay	42.7	31.5	34.3	34.2	7.4	44.2	27.6	18.0	41.7	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.7	31.5	34.3	34.2	7.4	44.2	27.6	18.0	41.7	18.6
Queue Length 50th (ft)	21	12	103	103	0	7	105	64	39	69
Queue Length 95th (ft)	69	42	228	228	42	32	201	194	107	168
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	659	1270	1310	1313	1241	471	2706	1256	793	3109
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.06	0.18	0.18	0.09	0.03	0.18	0.28	0.11	0.15

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	203	435	23	414	444	46	39	211	214	206
v/c Ratio	0.84	0.39	0.21	0.58	0.68	0.08	0.07	0.67	0.68	0.45
Control Delay	78.5	34.0	59.5	45.4	9.5	32.7	18.7	55.1	55.4	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.5	34.0	59.5	45.4	9.5	32.7	18.7	55.1	55.4	8.7
Queue Length 50th (ft)	148	138	17	146	0	24	8	153	155	0
Queue Length 95th (ft)	#333	212	48	216	96	62	40	253	257	63
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	242	1405	309	1567	911	554	532	521	523	620
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.31	0.07	0.26	0.49	0.08	0.07	0.40	0.41	0.33

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	491	434	397	743	31	181
v/c Ratio	0.28	0.44	0.83	0.25	0.24	0.64
Control Delay	16.2	3.6	46.5	2.2	43.6	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	3.6	46.5	2.2	43.6	17.1
Queue Length 50th (ft)	84	0	219	32	18	1
Queue Length 95th (ft)	154	61	294	67	43	61
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1742	987	605	2921	484	571
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.44	0.66	0.25	0.06	0.32

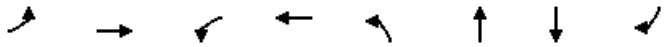
Intersection Summary

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	162	388	759	326	318	296
v/c Ratio	0.70	0.17	0.47	0.72	0.72	0.48
Control Delay	54.5	8.2	19.7	39.5	36.3	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	8.2	19.7	39.5	36.3	5.6
Queue Length 50th (ft)	93	45	156	183	167	0
Queue Length 95th (ft)	156	81	249	253	243	55
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	286	2268	1624	586	561	711
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.17	0.47	0.56	0.57	0.42

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	64	691	17	643	99	22
v/c Ratio	0.21	0.31	0.07	0.34	0.29	0.06
Control Delay	20.5	6.4	21.1	10.5	20.3	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	6.4	21.1	10.5	20.3	1.9
Queue Length 50th (ft)	15	35	4	66	22	0
Queue Length 95th (ft)	47	118	20	122	64	5
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	1063	3374	1063	3420	1063	974
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.20	0.02	0.19	0.09	0.02

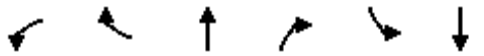
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	35	612	27	572	102	25	22	89
v/c Ratio	0.15	0.43	0.12	0.40	0.27	0.07	0.13	0.32
Control Delay	31.5	16.9	32.0	17.2	23.1	10.6	33.0	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	16.9	32.0	17.2	23.1	10.6	33.0	10.9
Queue Length 50th (ft)	9	60	7	57	25	0	6	0
Queue Length 95th (ft)	49	210	41	200	82	18	36	39
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	1007	3181	1007	3237	1007	861	781	944
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.19	0.03	0.18	0.10	0.03	0.03	0.09

Intersection Summary

24: Sierra College Blvd & Project Driveway



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	542	249	611	574	240	736
v/c Ratio	0.59	0.41	0.38	0.51	0.77	0.36
Control Delay	21.0	5.0	16.6	5.0	42.5	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	5.0	16.6	5.0	42.5	7.6
Queue Length 50th (ft)	82	0	61	49	82	67
Queue Length 95th (ft)	124	43	91	100	#185	103
Internal Link Dist (ft)	574		597			347
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1075	667	1626	1178	323	2033
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.37	0.38	0.49	0.74	0.36

Intersection Summary

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

Project Driveway Option B

Existing plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-

Cumulative Short-Term plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-

Cumulative Long-Term plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	160	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-

ExistingP AM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	132	15	97	116	-	-	-	27	**#131**	-	31
8	Sierra College Boulevard & Granite Drive	**#245**	120	-	90	277	26	79	36	25	**#193**	53	-
21	Sierra College Boulevard & Driveway South of Brace Road	2	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	-	58	10	42	100	-	-	-	-	36	-	22
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

ExistingP PM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	274	21	100	128	-	-	-	54	**#176**	-	37
8	Sierra College Boulevard & Granite Drive	**#257**	229	-	79	427	17	**#222**	44	42	**#163**	42	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	2	-	-	-
24	Sierra College Boulevard & Project Driveway	-	154	30	#117	153	-	-	-	-	92	-	38
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

ExistingP SAT

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	156	16	76	90	-	-	-	-	**#151**	-	20
8	Sierra College Boulevard & Granite Drive	**#212**	164	-	72	290	37	#144	39	34	**#193**	39	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	-	112	75	158	102	-	-	-	-	134	-	51
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

ExistingP AM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	4.01%	3.85%	0.00%	2.71%	0.00%	-	-	0.00%	1.89%	-	0.00%
8	0.00%	18.51%	8.13%	0.00%	11.88%	2.35%	2.74%	4.17%	0.00%	6.29%	2.38%	0.00%
21	0.00%	3.99%	-	-	2.34%	0.00%	-	-	-	-	-	-
24	-	0.00%	100.00%	100.00%	0.00%	-	-	-	-	100.00%	-	100.00%
25	-	-	-	-	-	-	-	1.12%	-	-	1.02%	-

Notes:

Shading indicates Project impact.

ExistingP PM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	6.61%	2.52%	6.60%	6.98%	-	-	-	0.00%	5.08%	-	0.00%
8	0.00%	22.98%	29.59%	0.00%	23.59%	8.05%	4.02%	7.14%	0.00%	21.90%	7.69%	0.00%
21	0.00%	6.17%	-	-	5.84%	0.00%	-	-	0.00%	-	-	-
24	-	0.00%	100.00%	100.00%	0.00%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	1.38%	100.00%	-	2.68%	-

Notes:

Shading indicates Project impact.

ExistingP SAT

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	17.45%	6.32%	16.48%	15.92%	-	-	-	0.00%	9.60%	-	0.00%
8	0.00%	40.61%	37.58%	0.00%	34.15%	11.61%	10.69%	14.81%	0.00%	32.18%	14.29%	0.00%
21	0.00%	16.13%	-	-	13.85%	-	-	-	-	-	-	-
24	-	-20.64%	100.00%	100.00%	-15.81%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	3.49%	100.00%	-	6.67%	-

Notes:

Shading indicates Project impact.

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	111	113	97	557	55	135	827
v/c Ratio	0.36	0.61	0.21	0.45	0.06	0.53	0.43
Control Delay	7.0	44.8	6.1	15.9	2.9	30.7	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.0	44.8	6.1	15.9	2.9	30.7	7.9
Queue Length 50th (ft)	0	35	0	72	0	40	73
Queue Length 95th (ft)	27	#131	31	132	15	97	116
Internal Link Dist (ft)				226			582
Turn Bay Length (ft)		100				170	
Base Capacity (vph)	832	185	1078	2417	985	581	3408
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.61	0.09	0.23	0.06	0.23	0.24

Intersection Summary

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

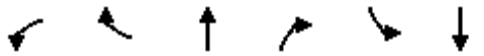
8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	76	25	114	166	44	29	234	730	93	929	89
v/c Ratio	0.40	0.15	0.34	0.71	0.24	0.11	0.73	0.32	0.44	0.70	0.14
Control Delay	40.1	35.9	10.5	52.7	37.0	0.9	47.0	13.9	39.5	23.7	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	35.9	10.5	52.7	37.0	0.9	47.0	13.9	39.5	23.7	4.2
Queue Length 50th (ft)	35	11	0	78	20	0	109	77	42	195	0
Queue Length 95th (ft)	79	36	25	#193	53	0	#245	120	90	277	26
Internal Link Dist (ft)		707			450			403		628	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	233	703	1057	233	697	671	320	2333	285	1575	753
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.04	0.11	0.71	0.06	0.04	0.73	0.31	0.33	0.59	0.12

Intersection Summary

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

24: Sierra College Blvd & Project Driveway



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	154	63	580	157	61	1005
v/c Ratio	0.27	0.20	0.19	0.11	0.29	0.41
Control Delay	17.3	7.2	6.7	0.8	22.2	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	7.2	6.7	0.8	22.2	4.7
Queue Length 50th (ft)	18	0	17	0	14	53
Queue Length 95th (ft)	36	22	58	10	42	100
Internal Link Dist (ft)	551		628			307
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1360	665	3109	1543	214	2471
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.09	0.19	0.10	0.29	0.41

Intersection Summary

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	148	123	110	1025	124	110	835
v/c Ratio	0.49	0.86	0.25	0.65	0.12	0.55	0.40
Control Delay	13.4	85.0	7.1	17.2	2.0	41.2	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	85.0	7.1	17.2	2.0	41.2	7.6
Queue Length 50th (ft)	3	51	0	158	0	43	75
Queue Length 95th (ft)	54	#176	37	274	21	100	128
Internal Link Dist (ft)				226			582
Turn Bay Length (ft)		100				170	
Base Capacity (vph)	733	143	916	2005	1037	462	2947
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.86	0.12	0.51	0.12	0.24	0.28

Intersection Summary

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	185	30	306	146	28	35	232	1289	65	1222	93
v/c Ratio	0.69	0.21	0.61	0.66	0.20	0.14	0.78	0.47	0.41	0.80	0.12
Control Delay	53.5	42.9	10.6	54.1	42.7	1.2	55.7	14.7	47.5	27.7	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	53.5	42.9	10.6	54.1	42.7	1.2	55.7	14.8	47.5	27.7	2.1
Queue Length 50th (ft)	106	17	0	82	16	0	130	169	36	314	0
Queue Length 95th (ft)	#222	44	42	#163	42	0	#257	229	79	427	17
Internal Link Dist (ft)		707			523			403		648	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	269	597	1099	232	597	588	299	2718	189	1535	754
Starvation Cap Reductn	0	0	0	0	0	0	0	483	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.05	0.28	0.63	0.05	0.06	0.78	0.58	0.34	0.80	0.12

Intersection Summary

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

24: Sierra College Blvd & Project Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	402	182	1029	387	161	1014
v/c Ratio	0.51	0.36	0.50	0.31	0.58	0.47
Control Delay	20.4	5.4	15.1	1.7	31.3	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	5.4	15.1	1.7	31.3	7.5
Queue Length 50th (ft)	58	0	96	9	48	80
Queue Length 95th (ft)	92	38	154	30	#117	153
Internal Link Dist (ft)	597		648			287
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1129	643	2067	1320	307	2135
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.28	0.50	0.29	0.52	0.47

Intersection Summary

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

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	130	57	734	99	95	746
v/c Ratio	0.22	0.72	0.15	0.47	0.09	0.45	0.35
Control Delay	1.5	55.1	5.8	13.4	1.9	30.9	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.5	55.1	5.8	13.4	1.9	30.9	6.1
Queue Length 50th (ft)	0	42	0	97	0	30	64
Queue Length 95th (ft)	0	#151	20	156	16	76	90
Internal Link Dist (ft)				226			582
Turn Bay Length (ft)		100				170	
Base Capacity (vph)	887	180	1023	2447	1112	559	3366
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.72	0.06	0.30	0.09	0.17	0.22

Intersection Summary

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

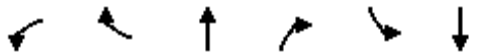
8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	136	28	213	181	29	24	206	1023	67	982	117
v/c Ratio	0.40	0.17	0.48	0.71	0.17	0.10	0.71	0.43	0.37	0.73	0.18
Control Delay	36.6	36.8	9.5	50.0	35.9	0.8	47.6	14.7	39.9	24.6	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.6	36.8	9.5	50.0	35.9	0.8	47.6	14.7	39.9	24.6	4.5
Queue Length 50th (ft)	64	13	0	86	13	0	97	117	31	208	1
Queue Length 95th (ft)	#144	39	34	#193	39	0	#212	164	72	290	32
Internal Link Dist (ft)		707			486			403		658	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	336	704	1205	256	703	708	290	2417	216	1528	745
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.04	0.18	0.71	0.04	0.03	0.71	0.42	0.31	0.64	0.16

Intersection Summary

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

24: Sierra College Blvd & Project Driveway



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	477	262	611	505	253	736
v/c Ratio	0.60	0.46	0.34	0.44	0.66	0.33
Control Delay	26.2	6.0	18.4	3.6	32.8	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	6.0	18.4	3.6	32.8	6.6
Queue Length 50th (ft)	90	0	69	24	98	68
Queue Length 95th (ft)	134	51	112	75	158	102
Internal Link Dist (ft)	574		658			277
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	946	626	1782	1200	514	2240
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.42	0.34	0.42	0.49	0.33

Intersection Summary

Project Driveway Option C

Existing plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

Cumulative Short-Term plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	900	40	-	150	-	-	1,900	600	465	2,500	-
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

Cumulative Long-Term Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	160	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

ExistingP AM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	116	5	#91	112	-	-	-	3	75	-	19
8	Sierra College Boulevard & Granite Drive	**#245**	120	-	90	277	26	79	36	25	**#193**	53	-
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	-	56	10	40	92	-	-	-	-	36	-	22
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
37	Project Driveway East & Brace Road	-	0	-	-	-	-	-	-	-	0	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

ExistingP PM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	217	14	#102	111	-	-	-	27	#93	-	30
8	Sierra College Boulevard & Granite Drive	**#257**	229	-	79	427	17	**#222**	44	42	**#163**	42	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	3	-	-	-
24	Sierra College Boulevard & Project Driveway	-	159	25	101	153	-	-	-	-	92	-	37
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
37	Project Driveway East & Brace Road	-	3	-	-	-	-	-	-	-	-	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

ExistingP SAT

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	140	11	#77	96	-	-	-	-	#76	-	3
8	Sierra College Boulevard & Granite Drive	**#212**	164	-	72	290	37	#144	39	34	**#193**	39	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	-	91	77	#185	103	-	-	-	-	109	-	43
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
37	Project Driveway East & Brace Road	-	3	-	-	-	-	-	-	-	0	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

ExistingP AM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	3.64%	0.00%	0.00%	2.71%	0.00%	-	-	0.00%	0.00%	-	2.15%
8	0.00%	18.51%	8.13%	0.00%	11.88%	2.35%	2.74%	4.17%	0.00%	6.29%	2.38%	0.00%
21	0.00%	3.32%	-	-	2.15%	0.00%	-	-	-	-	-	-
24	-	-6.55%	100.00%	100.00%	-3.57%	-	-	-	-	100.00%	-	100.00%
25	-	-	-	-	-	-	-	0.00%	-	-	1.02%	-
37	100.00%	-	100.00%	-	-	-	-	0.00%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

ExistingP PM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	6.32%	0.00%	6.60%	6.98%	-	-	-	0.00%	0.00%	-	2.75%
8	0.00%	22.98%	29.59%	0.00%	23.59%	8.05%	4.02%	7.14%	0.00%	21.90%	7.69%	0.00%
21	0.00%	5.65%	-	-	5.31%	0.00%	-	-	0.00%	-	-	-
24	-	-9.82%	100.00%	100.00%	-9.22%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	1.36%	-
37	100.00%	-	100.00%	-	-	-	-	1.38%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

ExistingP SAT

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	16.74%	0.00%	16.48%	15.92%	-	-	-	0.00%	0.00%	-	9.84%
8	0.00%	40.61%	37.58%	0.00%	34.15%	11.61%	10.69%	14.81%	0.00%	32.18%	14.29%	0.00%
21	0.00%	14.85%	-	-	12.69%	-	-	-	-	-	-	-
24	-	-20.64%	100.00%	100.00%	-15.81%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	3.45%	-
37	100.00%	-	100.00%	-	-	-	-	3.49%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	111	111	99	555	53	135	827
v/c Ratio	0.34	0.43	0.21	0.37	0.05	0.61	0.38
Control Delay	3.0	27.0	3.5	14.8	0.7	34.4	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.0	27.0	3.5	14.8	0.7	34.4	7.8
Queue Length 50th (ft)	0	32	0	74	0	40	76
Queue Length 95th (ft)	3	75	19	116	5	#91	112
Internal Link Dist (ft)				219			582
Turn Bay Length (ft)		100				170	
Base Capacity (vph)	323	284	597	1591	1052	297	2236
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.39	0.17	0.35	0.05	0.45	0.37

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	76	25	114	166	44	29	234	730	93	929	89
v/c Ratio	0.40	0.15	0.34	0.71	0.24	0.11	0.73	0.32	0.44	0.70	0.14
Control Delay	40.1	35.9	10.5	52.7	37.0	0.9	47.0	13.9	39.5	23.7	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	35.9	10.5	52.7	37.0	0.9	47.0	13.9	39.5	23.7	4.2
Queue Length 50th (ft)	35	11	0	78	20	0	109	77	42	195	0
Queue Length 95th (ft)	79	36	25	#193	53	0	#245	120	90	277	26
Internal Link Dist (ft)		707			498			403		598	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	233	703	1057	233	697	671	320	2330	285	1575	753
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.04	0.11	0.71	0.06	0.04	0.73	0.31	0.33	0.59	0.12

Intersection Summary

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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	154	59	580	157	59	1005
v/c Ratio	0.28	0.19	0.19	0.11	0.27	0.41
Control Delay	17.5	7.4	6.5	0.8	21.7	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	7.4	6.5	0.8	21.7	4.6
Queue Length 50th (ft)	18	0	17	0	14	53
Queue Length 95th (ft)	36	22	56	10	40	92
Internal Link Dist (ft)	551		598			344
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1365	665	3117	1549	215	2481
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.09	0.19	0.10	0.27	0.41

Intersection Summary

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	148	117	114	1022	121	110	835
v/c Ratio	0.48	0.49	0.24	0.55	0.10	0.62	0.36
Control Delay	7.9	32.4	5.5	14.7	1.3	43.9	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	32.4	5.5	14.7	1.3	43.9	6.9
Queue Length 50th (ft)	0	41	0	155	0	39	77
Queue Length 95th (ft)	27	#93	30	217	14	#102	111
Internal Link Dist (ft)				216			582
Turn Bay Length (ft)		100				170	
Base Capacity (vph)	308	259	566	1868	1167	209	2341
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.45	0.20	0.55	0.10	0.53	0.36

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	185	30	306	146	28	35	232	1289	65	1222	93
v/c Ratio	0.69	0.21	0.61	0.66	0.20	0.14	0.78	0.47	0.41	0.80	0.12
Control Delay	53.5	42.9	10.6	54.1	42.7	1.2	55.7	14.7	47.5	27.7	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	53.5	42.9	10.6	54.1	42.7	1.2	55.7	14.8	47.5	27.7	2.1
Queue Length 50th (ft)	106	17	0	82	16	0	130	169	36	314	0
Queue Length 95th (ft)	#222	44	42	#163	42	0	#257	229	79	427	17
Internal Link Dist (ft)		707			588			403		598	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	269	597	1099	232	597	588	299	2716	189	1535	754
Starvation Cap Reductn	0	0	0	0	0	0	0	478	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.05	0.28	0.63	0.05	0.06	0.78	0.58	0.34	0.80	0.12

Intersection Summary

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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	402	175	1029	387	154	1014
v/c Ratio	0.51	0.35	0.51	0.31	0.53	0.47
Control Delay	20.4	5.4	15.7	1.4	28.5	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	5.4	15.7	1.4	28.5	7.5
Queue Length 50th (ft)	58	0	97	4	45	80
Queue Length 95th (ft)	92	37	159	25	101	153
Internal Link Dist (ft)	597		598			348
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1129	638	2029	1323	339	2135
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.27	0.51	0.29	0.45	0.47

Intersection Summary

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	118	64	728	93	95	746
v/c Ratio	0.19	0.42	0.13	0.42	0.08	0.51	0.35
Control Delay	1.1	24.7	0.9	12.5	1.3	32.6	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.1	24.7	0.9	12.5	1.3	32.6	7.2
Queue Length 50th (ft)	0	33	0	92	0	27	64
Queue Length 95th (ft)	0	#76	3	140	11	#77	96
Internal Link Dist (ft)				217			582
Turn Bay Length (ft)		100				170	
Base Capacity (vph)	373	289	627	1771	1214	216	2378
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.41	0.10	0.41	0.08	0.44	0.31

Intersection Summary

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	136	28	213	181	29	24	206	1023	67	982	117
v/c Ratio	0.40	0.17	0.48	0.71	0.17	0.10	0.71	0.44	0.37	0.73	0.18
Control Delay	36.6	36.8	9.5	50.0	35.9	0.8	47.6	14.7	39.9	24.6	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.6	36.8	9.5	50.0	35.9	0.8	47.6	14.7	39.9	24.6	4.5
Queue Length 50th (ft)	64	13	0	86	13	0	97	117	31	208	1
Queue Length 95th (ft)	#144	39	34	#193	39	0	#212	164	72	290	32
Internal Link Dist (ft)		707			545			403		597	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	336	704	1205	256	703	708	290	2414	216	1528	745
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.04	0.18	0.71	0.04	0.03	0.71	0.42	0.31	0.64	0.16

Intersection Summary

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

24: Sierra College Blvd & Project Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	477	249	611	505	240	736
v/c Ratio	0.54	0.42	0.37	0.46	0.76	0.36
Control Delay	20.4	5.1	16.2	4.3	41.4	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	5.1	16.2	4.3	41.4	7.4
Queue Length 50th (ft)	71	0	59	39	79	63
Queue Length 95th (ft)	109	43	91	77	#185	103
Internal Link Dist (ft)	574		597			347
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1092	673	1654	1194	328	2065
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.37	0.37	0.42	0.73	0.36

Intersection Summary

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

Cumulative Conditions – Short Term Baseline

Cumulative Short-Term Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	200	970	350	280	490	-	65	215	150	95	585	-
2	Taylor Road & Horseshoe Bar Road	100	400	125	190	380	-	-	115	-	-	160	160
3	Horseshoe Bar Road & I-80 Westbound Ramp	85	680	-	160	450	95	-	935	250	275	95	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	2,350	100	-	685	-	-	-	-	-	1,080	-
5	Barton Road & Brace Road	-	2,895	-	-	-	-	-	1,980	-	-	560	-
6	Sierra College Boulevard & Taylor Road	210	550	550	210	1,500	450	150	900	250	215	2,060	215
7	Sierra College Boulevard & Brace Road	-	1,265	200	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	60	230	150
9	Sierra College Boulevard & I-80 WB Ramps	200	1,530	325	-	370	150	530	-	530	740	1,320	740
10	Sierra College Boulevard & I-80 EB Ramps	-	710	280	250	1,530	500	1,315	1,315	205	345	-	330
11	Sierra College Boulevard & Schriber Way	90	395	-	-	300	100	200	200	-	-	415	415
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	75	1,675	45	220	710	200	130	260	-	265	745	150
13	Sierra College Boulevard & Stadium Dwy	200	1,580	-	-	1,690	-	200	-	60	-	-	-
14	Sierra College Boulevard & Rocklin Road	245	650	-	245	1,575	175	240	925	925	315	1,325	-
15	Pacific Street & Dominguez Road/Delmar Avenue	210	1,860	-	200	850	150	-	700	315	-	1,935	140
16	Pacific Street & Rocklin Road	265	420	110	230	410	-	130	285	-	250	330	330
17	Granite Drive & Rocklin Road	100	140	-	325	625	625	225	675	-	135	650	150
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	635	1,165	-	-	580	280	300	555	-
19	I-80 Eastbound Ramps & Rocklin Road	455	1,115	455	-	-	-	170	520	-	-	370	-
20	Aguilar Road & Rocklin Road	320	-	320	-	-	-	75	400	-	85	1,260	-
21	Sierra College Boulevard & Driveway South of Brace Road	135	1,000	-	-	220	-	-	-	60	-	-	-
22	Dominguez Road & Granite Driive	220	1,390	-	-	730	-	370	-	50	-	-	-
23	El Don Drive & Rocklin Road	140	530	-	-	580	95	410	1,260	-	265	1,430	-
24	Sierra College Boulevard & Project Driveway	Does not exist											
25	Brace Road & Project Driveway	Does not exist											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	900	40	-	150	-	-	1,900	600	465	2,500	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	4,500	-	100	1,300	-	-	-	-	1,450	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	105	1,100	210	105	3,100	-	-	85	30	-	910	30
29	Taylor Road & English Colony Way-Rock Springs Road	150	1,900	-	140	350	115	-	560	30	-	940	-
30	Taylor Road & Penryn Road (North	85	170	-	-	555	-	55	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	2,600	-	85	180	-	-	-	-	495	-	-
32	Taylor Road & Del Oro High School North Lot	-	185	-	70	1,600	-	-	-	-	200	-	45
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Drop Off	150	300	-	90	190	-	-	50	-	-	75	-
34	Taylor Road & Del Oro High School South Lot	-	1,200	-	150	300	-	-	-	-	65	-	65
35	Taylor Road & Rippey Road	140	465	-	-	610	-	3,500	-	-	-	-	-
36	Taylor Road & Webb Street	185	370	-	160	500	105	-	-	1,070	-	190	-
37	Project Driveway East & Brace Road	Does not exist											

Cumulative-Short Term AM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#332**	384	36	#102	208	-	**187**	139	58	**145**	238	-
2	Taylor Road & Horseshoe Bar Road	7	#273	3	**#327**	138	-	-	55	-	-	58	**178**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**162**	194	-	34	201	**98**	-	#155	42	66	80	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	8	-	-	-	-	-	363	-
5	Barton Road & Brace Road	-	18	-	-	-	-	-	-	-	-	5	-
6	Sierra College Boulevard & Taylor Road	#205	142	34	44	#414	35	**#159**	168	1	#144	157	-
7	Sierra College Boulevard & Brace Road	-	183	-	#111	171	-	-	-	30	80	-	26
8	Sierra College Boulevard & Granite Drive	**#323**	209	29	110	474	23	#133	41	41	**#216**	62	-
9	Sierra College Boulevard & I-80 WB Ramps	**#207**	74	3	-	**428**	3	44	-	43	313	177	96
10	Sierra College Boulevard & I-80 EB Ramps	-	228	-	107	295	7	175	67	152	79	-	61
11	Sierra College Boulevard & Schriber Way	23	104	-	-	**547**	-	23	-	-	-	171	45
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	-	153	-	60	317	-	10	-	-	30	6	-
13	Sierra College Boulevard & Stadium Dwy	68	75	-	-	202	-	14	-	11	-	-	-
14	Sierra College Boulevard & Rocklin Road	**#321**	#331	-	#210	199	39	#157	114	132	#228	190	-
15	Pacific Street & Dominguez Road/Delmar Avenue	#130	#301	-	40	212	10	-	55	41	-	92	10
16	Pacific Street & Rocklin Road	82	264	**#451**	**#437**	277	-	52	93	-	**#508**	**#529**	61
17	Granite Drive & Rocklin Road	26	34	-	177	174	37	#194	391	-	34	#342	**#242**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	53	150	-	-	#400	74	m280	m334	-
19	I-80 Eastbound Ramps & Rocklin Road	**#555**	#468	#422	-	-	-	**m#219**	143	-	-	**#458**	-
20	Aguilar Road & Rocklin Road	131	-	1	-	-	-	64	**489**	-	22	213	-
21	Sierra College Boulevard & Driveway South of Brace Road	2	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	8	-	-	-	-	-	30	-	15	-	-	-
23	El Don Drive & Rocklin Road	**173**	34	-	-	#61	-	**#669**	373	-	29	#467	-
24	Sierra College Boulevard & Project Driveway	DNE											
25	Brace Road & Project Driveway	DNE											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	168	15	-	-	-	-	88	423	48	80	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	10	-	-	-	-	-	18	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	3	-	-	70	-
29	Taylor Road & English Colony Way-Rock Springs Road	25	93	-	-	188	25	-	43	**68**	-	58	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	33	-	-	-	-	-	473	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	28	-	-	-	-	-	68	-	20
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dro	-	-	-	15	-	-	-	-	-	-	**560**	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	18	-	-	-	-	-	**165**	-	15
35	Taylor Road & Rippey Road	8	-	-	-	-	-	10	-	-	-	-	-
36	Taylor Road & Webb Street	15	-	-	3	-	-	-	-	55	-	8	-

Notes:

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

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

Bold indicated queues in excess of capacity.

Cumulative-Short Term PM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#447**	354	43	#84	214	-	**79**	138	87	**169**	160	-
2	Taylor Road & Horseshoe Bar Road	37	**#557**	18	**#384**	348	-	-	52	-	-	89	**231**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**110**	188	-	63	163	66	-	#172	17	110	64	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	8	-	-	-	-	-	388	-
5	Barton Road & Brace Road	-	25	-	-	-	-	-	-	-	-	3	-
6	Sierra College Boulevard & Taylor Road	**#218**	**#564**	144	44	327	33	**#250**	#282	55	**#273**	296	-
7	Sierra College Boulevard & Brace Road	-	#598	-	#148	187	-	-	-	76	**166**	-	43
8	Sierra College Boulevard & Granite Drive	**#539**	**618**	21	#116	#817	48	**#330**	52	52	**#163**	50	-
9	Sierra College Boulevard & I-80 WB Ramps	**m#761**	m348	m15	-	**#868**	**170**	#376	-	175	273	326	221
10	Sierra College Boulevard & I-80 EB Ramps	-	452	68	m212	m204	m2	366	195	130	**#382**	-	**#882**
11	Sierra College Boulevard & Schriber Way	68	265	-	-	**#658**	23	112	-	-	-	94	73
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	8	373	17	#121	417	-	13	-	-	56	-	-
13	Sierra College Boulevard & Stadium Dwy	30	284	-	-	168	-	41	-	31	-	-	-
14	Sierra College Boulevard & Rocklin Road	**248**	**#914**	-	**#390**	340	111	**#615**	221	200	#134	#409	-
15	Pacific Street & Dominguez Road/Delmar Avenue	#175	#628	-	57	377	-	-	94	50	-	127	-
16	Pacific Street & Rocklin Road	83	**425**	**#790**	**#387**	360	-	63	112	-	**#731**	**#756**	203
17	Granite Drive & Rocklin Road	**76**	45	-	278	275	63	**#365**	373	-	61	#637	**#379**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	54	#338	-	-	#491	143	**#624**	332	-
19	I-80 Eastbound Ramps & Rocklin Road	**#590**	#572	308	-	-	-	**#346**	188	-	-	**#832**	-
20	Aguilar Road & Rocklin Road	78	-	-	-	-	-	58	330	-	30	371	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	4	-	-	-
22	Dominguez Road & Granite Driive	13	-	-	-	-	-	55	-	13	-	-	-
23	El Don Drive & Rocklin Road	106	21	-	-	#283	73	#252	#497	-	36	#498	-
24	Sierra College Boulevard & Project Driveway	DNE											
25	Brace Road & Project Driveway	DNE											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	698	35	-	-	-	-	105	153	33	88	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	18	-	-	-	-	-	105	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	8	-	-	135	3
29	Taylor Road & English Colony Way-Rock Springs Road	23	130	-	3	43	15	-	30	20	-	23	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	13	-	-	-	-	-	113	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	8	-	-
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dro	-	-	-	-	-	-	-	-	-	-	13	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	3	-	-	-	-	-	55	-	8
35	Taylor Road & Rippey Road	3	-	-	-	-	-	8	-	-	-	-	-
36	Taylor Road & Webb Street	38	-	-	-	-	-	-	-	65	-	18	-

Notes:

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

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

Bold indicated queues in excess of capacity.

Cumulative-Short Term SAT

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#334**	240	31	#44	157	-	**66**	59	46	**177**	83	-
2	Taylor Road & Horseshoe Bar Road	26	**#449**	18	**#289**	367	-	-	33	-	-	94	**92**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**138**	131	-	48	124	**64**	-	#163	6	**78**	**85**	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	5	-	-	-	-	-	185	-
5	Barton Road & Brace Road	-	70	-	-	-	-	-	-	-	-	8	-
6	Sierra College Boulevard & Taylor Road	#206	293	96	46	#327	30	**#167**	177	44	**#269**	153	-
7	Sierra College Boulevard & Brace Road	-	#425	-	#111	207	-	-	-	16	**140**	-	14
8	Sierra College Boulevard & Granite Drive	**#408**	**432**	31	100	655	49	**#236**	46	48	**#199**	49	-
9	Sierra College Boulevard & I-80 WB Ramps	**m#944**	m282	m78	-	**#782**	**222**	#509	-	**#587**	296	337	220
10	Sierra College Boulevard & I-80 EB Ramps	-	353	59	**m#347**	m168	-	311	233	126	**#409**	-	**#886**
11	Sierra College Boulevard & Schriber Way	**#124**	214	-	-	**#595**	52	128	-	-	-	95	71
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	5	253	30	#137	351	-	9	-	-	50	5	31
13	Sierra College Boulevard & Stadium Dwy	18	210	-	-	161	-	15	-	15	-	-	-
14	Sierra College Boulevard & Rocklin Road	171	#640	-	**#278**	267	56	**#374**	123	106	#176	182	-
15	Pacific Street & Dominguez Road/Delmar Avenue	#107	208	-	40	232	20	-	59	32	-	45	6
16	Pacific Street & Rocklin Road	30	236	**#261**	**#309**	195	-	44	63	-	**310**	#318	53
17	Granite Drive & Rocklin Road	64	42	-	214	211	56	**#353**	275	-	40	306	**160**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	42	122	-	-	#364	80	**#445**	171	-
19	I-80 Eastbound Ramps & Rocklin Road	#316	#293	149	-	-	-	#168	102	-	-	#367	-
20	Aguilar Road & Rocklin Road	62	-	-	-	-	-	50	222	-	17	217	-
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	13	-	-	-	-	-	45	-	13	-	-	-
23	El Don Drive & Rocklin Road	80	14	-	-	#56	-	48	#420	-	32	#394	-
24	Sierra College Boulevard & Project Driveway	DNE											
25	Brace Road & Project Driveway	DNE											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	320	**43**	-	5	-	-	88	193	318	65	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	5	-	-	-	-	-	38	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	3	-	-	118	-
29	Taylor Road & English Colony Way-Rock Springs Road	48	193	-	3	123	20	-	63	**58**	-	43	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	10	-	-	-	-	-	55	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	-	-	-
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dro	-	-	-	3	-	-	-	-	-	-	55	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	-	-	-	-	-	-	50	-	5
35	Taylor Road & Rippey Road	8	-	-	-	-	-	10	-	-	-	-	-
36	Taylor Road & Webb Street	30	-	-	-	-	-	-	-	213	-	175	-

Notes:

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

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

Bold indicated queues in excess of capacity.

1: Taylor Rd & King Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	203	146	271	163	300	262	453	110	46	499
v/c Ratio	0.65	0.47	0.56	0.45	0.77	0.77	0.68	0.18	0.70	0.75
Control Delay	43.6	37.9	9.3	34.3	41.9	53.1	31.8	5.9	94.3	39.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.6	37.9	9.3	34.3	41.9	53.1	31.8	5.9	94.3	39.0
Queue Length 50th (ft)	100	69	0	75	129	133	200	0	25	120
Queue Length 95th (ft)	187	139	58	145	238	#332	384	36	#102	208
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	604	595	676	598	610	340	769	686	66	847
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.25	0.40	0.27	0.49	0.77	0.59	0.16	0.70	0.59

Intersection Summary

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

2: Taylor Rd & Horseshoe Bar Rd

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	66	62	527	2	438	59	460	415
v/c Ratio	0.25	0.23	0.67	0.01	0.69	0.10	0.72	0.28
Control Delay	25.0	28.3	12.5	31.5	25.0	0.6	25.9	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	28.3	12.5	31.5	25.0	0.6	25.9	4.3
Queue Length 50th (ft)	20	23	82	1	153	0	155	39
Queue Length 95th (ft)	55	58	178	7	#273	3	#327	138
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	645	666	981	202	911	805	883	1474
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.09	0.54	0.01	0.48	0.07	0.52	0.28

Intersection Summary

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

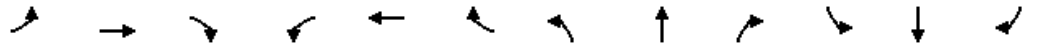
3: Horseshoe Bar Rd & I-80 WB Ramp

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	99	133	55	86	182	631	20	241	398
v/c Ratio	0.70	0.21	0.30	0.43	0.64	0.48	0.15	0.60	0.64
Control Delay	59.0	5.9	39.8	35.3	42.9	19.5	41.4	34.7	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	5.9	39.8	35.3	42.9	19.5	41.4	34.7	9.7
Queue Length 50th (ft)	46	0	27	32	89	105	10	104	12
Queue Length 95th (ft)	#155	42	66	80	162	194	34	201	98
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	141	641	452	453	479	1710	162	560	729
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.21	0.12	0.19	0.38	0.37	0.12	0.43	0.55

Intersection Summary

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

6: Sierra College Blvd & Taylor Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	115	214	110	259	199	22	164	463	220	30	1007	184
v/c Ratio	0.75	0.58	0.24	0.80	0.54	0.05	0.80	0.29	0.21	0.25	0.85	0.21
Control Delay	69.1	36.1	1.3	58.4	34.9	0.2	66.0	16.4	2.2	43.8	35.5	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.1	36.1	1.3	58.4	34.9	0.2	66.0	16.4	2.2	43.8	35.5	2.9
Queue Length 50th (ft)	59	101	0	69	93	0	84	66	0	15	252	0
Queue Length 95th (ft)	#159	168	1	#144	157	0	#205	142	34	44	#414	35
Internal Link Dist (ft)		429			1915			582			306	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	153	517	565	322	509	581	207	1584	1043	123	1179	876
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.41	0.19	0.80	0.39	0.04	0.79	0.29	0.21	0.24	0.85	0.21

Intersection Summary

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

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	111	134	101	866	150	1226	1
v/c Ratio	0.29	0.37	0.25	0.49	0.63	0.50	0.00
Control Delay	6.5	22.2	5.4	13.1	35.6	6.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.5	22.2	5.4	13.1	35.6	6.5	0.0
Queue Length 50th (ft)	0	38	0	104	46	94	0
Queue Length 95th (ft)	30	80	26	183	#111	171	0
Internal Link Dist (ft)				226		582	
Turn Bay Length (ft)	860	100	1000		170		
Base Capacity (vph)	531	544	542	1806	321	2571	1178
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.25	0.19	0.48	0.47	0.48	0.00

Intersection Summary

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	110	24	251	155	43	29	276	726	118	93	1245	97
v/c Ratio	0.49	0.18	0.60	0.79	0.31	0.12	0.82	0.41	0.13	0.53	0.81	0.13
Control Delay	51.4	47.4	12.3	72.2	50.8	1.1	59.8	15.7	3.0	54.8	30.4	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	51.4	47.4	12.3	72.2	50.8	1.1	59.8	16.0	3.0	54.8	30.4	3.0
Queue Length 50th (ft)	69	15	0	101	27	0	175	141	0	59	361	0
Queue Length 95th (ft)	#133	41	41	#216	62	0	#323	209	29	110	474	23
Internal Link Dist (ft)		707			453			403			1015	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	229	515	901	197	513	534	338	1790	885	226	1574	764
Starvation Cap Reductn	0	0	0	0	0	0	0	493	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.05	0.28	0.79	0.08	0.05	0.82	0.56	0.13	0.41	0.79	0.13

Intersection Summary

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

9: Sierra College Blvd & I-80 WB Ramps

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	22	98	695	193	180	119	911	216	1686	69
v/c Ratio	0.19	0.37	0.84	0.61	0.50	0.79	0.28	0.21	0.68	0.07
Control Delay	55.9	12.5	53.1	39.6	17.0	81.4	5.7	0.5	22.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0
Total Delay	55.9	12.5	53.1	39.6	17.0	81.4	5.7	0.5	23.9	0.4
Queue Length 50th (ft)	16	10	265	103	26	92	49	0	350	0
Queue Length 95th (ft)	44	43	313	177	96	#207	74	3	428	3
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	124	269	1419	553	563	152	3253	1022	2497	927
Starvation Cap Reductn	0	0	0	0	0	0	0	0	567	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.36	0.49	0.35	0.32	0.78	0.28	0.21	0.87	0.07

Intersection Summary

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

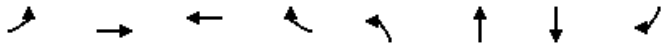
10: Sierra College Blvd & I-80 EB Ramps

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	430	120	233	53	128	1168	38	224	1432	340
v/c Ratio	0.62	0.27	0.77	0.45	0.50	0.36	0.04	0.67	0.58	0.30
Control Delay	45.7	48.0	39.8	65.8	18.4	13.3	0.1	51.1	7.2	0.7
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Total Delay	45.7	48.0	39.9	65.8	18.4	13.4	0.1	51.1	7.3	0.7
Queue Length 50th (ft)	158	45	82	41	11	85	0	86	132	0
Queue Length 95th (ft)	175	67	152	79	61	228	m0	107	295	7
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	756	1226	610	121	289	3217	923	413	2466	1136
Starvation Cap Reductn	0	0	0	0	0	809	0	0	0	0
Spillback Cap Reductn	0	0	52	0	0	0	0	0	123	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.10	0.42	0.44	0.44	0.49	0.04	0.54	0.61	0.30

Intersection Summary

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

11: Sierra College Blvd & Schriber Way



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	8	5	148	217	8	1143	1790	14
v/c Ratio	0.09	0.02	0.65	0.61	0.09	0.25	0.70	0.01
Control Delay	55.9	0.2	62.4	13.7	55.9	5.2	8.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	0.2	62.4	13.7	55.9	5.2	8.7	0.0
Queue Length 50th (ft)	6	0	111	0	6	50	70	0
Queue Length 95th (ft)	23	0	171	45	23	104	547	m0
Internal Link Dist (ft)		343	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	265	353	280	385	90	4601	2545	1196
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.01	0.53	0.56	0.09	0.25	0.70	0.01

Intersection Summary

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

12: Sierra College Blvd & Bass Pro Dr/Dominguez Rd

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	3	1	48	1	10	1154	31	50	1915	4
v/c Ratio	0.05	0.00	0.26	0.01	0.05	0.33	0.03	0.39	0.66	0.00
Control Delay	44.5	0.0	45.9	42.0	0.5	7.4	0.0	48.7	5.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Total Delay	44.5	0.0	45.9	42.0	0.5	7.4	0.0	48.7	6.4	0.0
Queue Length 50th (ft)	2	0	13	1	0	90	0	27	161	0
Queue Length 95th (ft)	10	0	30	6	0	153	0	60	317	0
Internal Link Dist (ft)		226		372		97			363	
Turn Bay Length (ft)	130		265		150		45	220		200
Base Capacity (vph)	65	674	191	720	568	3846	1190	178	2984	1034
Starvation Cap Reductn	0	0	0	0	0	0	0	0	689	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.00	0.25	0.00	0.02	0.30	0.03	0.28	0.83	0.00

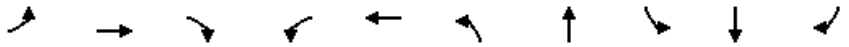
Intersection Summary

13: Sierra College Blvd & Stadium Dwy

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	29	11	96	1179	2230
v/c Ratio	0.09	0.07	0.53	0.38	0.63
Control Delay	28.1	16.6	40.8	2.1	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	16.6	40.8	2.1	7.6
Queue Length 50th (ft)	5	0	35	0	106
Queue Length 95th (ft)	14	11	68	75	202
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	1016	500	183	3036	3565
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.03	0.02	0.52	0.39	0.63

Intersection Summary

14: Sierra College Blvd & Rocklin Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	154	369	357	151	614	518	939	177	998	294
v/c Ratio	0.73	0.35	0.60	1.51	0.75	1.93	0.88	0.90	0.55	0.40
Control Delay	60.2	25.8	15.7	308.7	34.4	458.1	41.1	86.2	25.1	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	25.8	15.7	308.7	34.4	458.1	41.1	86.2	25.1	4.5
Queue Length 50th (ft)	88	87	70	~126	153	~246	272	105	170	0
Queue Length 95th (ft)	#157	114	132	#228	190	#321	#331	#210	199	39
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	226	1215	660	100	950	268	1078	196	1822	742
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.30	0.54	1.51	0.65	1.93	0.87	0.90	0.55	0.40

Intersection Summary

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

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

15: Pacific St & Dominguez Rd/Delmar Ave

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	79	187	152	56	137	524	40	433	52
v/c Ratio	0.34	0.44	0.50	0.14	0.59	0.51	0.27	0.59	0.08
Control Delay	22.4	7.2	25.0	2.3	38.6	13.3	29.9	17.5	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.4	7.2	25.0	2.3	38.6	13.3	29.9	17.5	1.8
Queue Length 50th (ft)	22	0	44	0	43	78	12	105	0
Queue Length 95th (ft)	55	41	92	10	#130	#301	40	212	10
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	569	761	721	843	231	1031	146	849	732
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.25	0.21	0.07	0.59	0.51	0.27	0.51	0.07

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	28	213	384	398	156	50	551	649	327	700
v/c Ratio	0.21	0.59	0.84	0.85	0.29	0.42	0.61	0.91	0.86	0.48
Control Delay	55.7	39.2	59.7	60.7	8.8	66.4	41.6	32.5	68.1	26.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	39.2	59.7	60.7	8.8	66.4	41.6	32.5	68.1	26.1
Queue Length 50th (ft)	21	52	305	317	7	38	195	198	252	206
Queue Length 95th (ft)	52	93	#508	#529	61	82	264	#451	#437	277
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	364	853	456	466	533	134	1006	752	380	1477
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.25	0.84	0.85	0.29	0.37	0.55	0.86	0.86	0.47

Intersection Summary

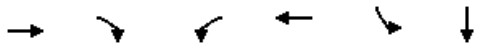
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	177	1137	20	913	641	14	25	213	209	164
v/c Ratio	0.71	0.67	0.20	0.79	0.80	0.08	0.16	0.64	0.62	0.36
Control Delay	54.1	21.9	45.8	33.6	16.6	39.8	33.5	39.7	38.8	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	21.9	45.8	33.6	16.6	39.8	33.5	39.7	38.8	6.2
Queue Length 50th (ft)	93	215	11	235	77	7	9	111	108	0
Queue Length 95th (ft)	#194	391	34	#342	#242	26	34	177	174	37
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	259	1701	102	1163	810	169	157	596	602	667
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.67	0.20	0.79	0.79	0.08	0.16	0.36	0.35	0.25

Intersection Summary

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

18: I-80 WB Ramps & Rocklin Rd



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	1000	582	462	1369	52	247
v/c Ratio	0.75	0.62	0.85	0.53	0.20	0.78
Control Delay	30.7	5.6	30.9	10.0	32.2	38.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	5.6	30.9	10.0	32.2	38.7
Queue Length 50th (ft)	267	0	226	212	26	85
Queue Length 95th (ft)	#400	74	m280	m334	53	150
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1333	933	549	2607	443	466
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.62	0.84	0.53	0.12	0.53

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	226	814	1149	579	555	540
v/c Ratio	0.90	0.43	0.92	0.95	0.87	0.84
Control Delay	81.7	12.3	40.4	56.1	36.3	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.7	12.3	40.4	56.1	36.3	32.5
Queue Length 50th (ft)	141	66	323	331	246	221
Queue Length 95th (ft)	m#219	143	#458	#555	#468	#422
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	255	1903	1254	608	636	645
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.43	0.92	0.95	0.87	0.84

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	56	1784	11	1026	161	29
v/c Ratio	0.31	0.76	0.09	0.49	0.53	0.10
Control Delay	37.4	12.2	36.1	10.4	33.7	0.6
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	37.4	12.5	36.1	10.4	33.7	0.6
Queue Length 50th (ft)	20	199	4	138	57	0
Queue Length 95th (ft)	64	489	22	213	131	1
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	186	2593	124	2520	551	488
Starvation Cap Reductn	0	273	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.77	0.09	0.41	0.29	0.06

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	570	1047	13	837	175	36	44	41
v/c Ratio	0.89	0.46	0.13	0.88	0.60	0.12	0.45	0.20
Control Delay	49.4	12.1	50.4	47.2	47.7	19.8	42.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	12.1	50.4	47.2	47.7	19.8	42.1	2.1
Queue Length 50th (ft)	339	146	8	264	107	8	11	0
Queue Length 95th (ft)	#669	373	29	#467	173	34	#61	0
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	642	2323	103	953	535	526	97	210
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.45	0.13	0.88	0.33	0.07	0.45	0.20

Intersection Summary

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

1: Taylor Rd & King Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	71	137	464	169	173	396	460	202	54	495
v/c Ratio	0.29	0.53	0.75	0.65	0.63	0.79	0.54	0.26	0.45	0.74
Control Delay	37.9	43.4	12.2	47.9	43.0	43.9	22.8	3.9	56.1	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	43.4	12.2	47.9	43.0	43.9	22.8	3.9	56.1	40.0
Queue Length 50th (ft)	35	70	0	87	79	196	181	0	29	126
Queue Length 95th (ft)	79	138	87	169	160	#447	354	43	#84	214
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	567	603	821	573	578	502	887	819	125	825
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.23	0.57	0.29	0.30	0.79	0.52	0.25	0.43	0.60

Intersection Summary

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

2: Taylor Rd & Horseshoe Bar Rd

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	58	91	479	23	686	85	413	739
v/c Ratio	0.23	0.42	0.68	0.18	0.85	0.12	0.80	0.52
Control Delay	26.2	38.7	18.7	41.1	32.8	2.5	41.1	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	38.7	18.7	41.1	32.8	2.5	41.1	8.4
Queue Length 50th (ft)	19	44	136	11	301	0	199	108
Queue Length 95th (ft)	52	89	231	37	#557	18	#384	348
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	462	403	757	143	971	835	587	1416
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.23	0.63	0.16	0.71	0.10	0.70	0.52

Intersection Summary

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

3: Horseshoe Bar Rd & I-80 WB Ramp

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	115	81	112	101	112	606	49	203	354
v/c Ratio	0.77	0.13	0.50	0.38	0.52	0.59	0.33	0.48	0.56
Control Delay	64.2	2.6	41.5	19.9	42.2	23.9	42.6	30.5	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.2	2.6	41.5	19.9	42.2	23.9	42.6	30.5	7.0
Queue Length 50th (ft)	50	0	51	16	51	123	22	83	0
Queue Length 95th (ft)	#172	17	110	64	110	188	63	163	66
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	149	647	455	480	469	1662	175	570	733
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.13	0.25	0.21	0.24	0.36	0.28	0.36	0.48

Intersection Summary

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

6: Sierra College Blvd & Taylor Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	212	317	182	521	340	49	157	1261	487	26	844	181
v/c Ratio	0.83	0.77	0.37	0.94	0.75	0.10	0.87	0.85	0.45	0.31	0.80	0.21
Control Delay	67.9	48.9	7.9	68.1	45.4	0.4	86.3	34.5	6.3	55.3	38.0	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.9	48.9	7.9	68.1	45.4	0.4	86.3	34.5	6.3	55.3	38.0	2.9
Queue Length 50th (ft)	133	187	3	172	199	0	101	350	53	16	258	1
Queue Length 95th (ft)	#250	#282	55	#273	296	0	#218	#564	144	44	327	33
Internal Link Dist (ft)		429			1915			582			355	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	268	455	521	553	487	526	180	1475	1086	85	1108	867
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.70	0.35	0.94	0.70	0.09	0.87	0.85	0.45	0.31	0.76	0.21

Intersection Summary

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

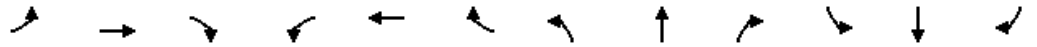
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	148	207	126	1838	113	1322
v/c Ratio	0.42	0.68	0.34	0.90	0.85	0.53
Control Delay	17.0	42.7	8.6	22.6	85.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	42.7	8.6	22.6	85.3	6.5
Queue Length 50th (ft)	25	96	0	397	57	142
Queue Length 95th (ft)	76	166	43	#598	#148	187
Internal Link Dist (ft)				226		582
Turn Bay Length (ft)	860	100	1000		170	
Base Capacity (vph)	378	337	399	2038	137	2507
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.61	0.32	0.90	0.82	0.53

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	200	28	391	114	26	35	381	1666	73	65	1544	124
v/c Ratio	0.90	0.21	0.70	0.66	0.22	0.18	1.00	0.73	0.07	0.59	0.93	0.16
Control Delay	93.0	57.2	12.4	72.3	58.8	2.0	94.4	18.2	2.8	78.6	42.4	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	0.0	0.0	0.0	0.0
Total Delay	93.0	57.2	12.4	72.3	58.8	2.0	94.4	30.8	2.8	78.6	42.4	6.4
Queue Length 50th (ft)	160	21	0	87	20	0	~304	459	1	51	591	11
Queue Length 95th (ft)	#330	52	52	#163	50	0	#539	618	21	#116	#817	48
Internal Link Dist (ft)		707			453			403			1015	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	222	461	983	189	449	454	381	2286	1023	113	1656	790
Starvation Cap Reductn	0	0	0	0	0	0	0	628	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.06	0.40	0.60	0.06	0.08	1.00	1.00	0.07	0.58	0.93	0.16

Intersection Summary

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

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

9: Sierra College Blvd & I-80 WB Ramps

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	213	327	591	258	237	445	1602	417	1816	222
v/c Ratio	0.67	0.53	0.46	0.87	0.71	1.32	0.58	0.40	1.13	0.38
Control Delay	69.6	19.6	36.3	81.3	43.6	206.8	20.0	1.7	113.5	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
Total Delay	69.6	19.6	36.3	81.3	43.6	206.8	20.0	1.7	114.1	23.5
Queue Length 50th (ft)	197	119	222	238	132	~565	319	2	~756	91
Queue Length 95th (ft)	#376	175	273	326	221	m#761	m348	m15	#868	170
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	317	618	1323	443	456	337	2758	1055	1603	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0	262	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.53	0.45	0.58	0.52	1.32	0.58	0.40	1.35	0.38

Intersection Summary

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

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

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

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	657	291	159	209	488	1919	186	414	1271	484
v/c Ratio	0.76	0.77	0.62	1.00	1.50	0.65	0.22	0.68	0.54	0.39
Control Delay	58.0	79.5	34.9	127.0	274.1	31.5	6.6	47.3	7.2	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	48.0	0.9	0.0	0.0	0.0
Total Delay	58.0	79.5	34.9	127.0	274.1	79.5	7.6	47.3	7.2	0.8
Queue Length 50th (ft)	308	148	53	208	~643	394	21	188	192	2
Queue Length 95th (ft)	366	195	130	#382	#882	452	68	m212	m204	m2
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	895	1010	516	209	326	2955	835	606	2368	1237
Starvation Cap Reductn	0	0	0	0	0	1275	425	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.29	0.31	1.00	1.50	1.14	0.45	0.68	0.54	0.39

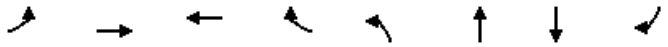
Intersection Summary

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

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

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

11: Sierra College Blvd & Schriber Way



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	105	55	82	170	52	2112	1478	98
v/c Ratio	0.53	0.13	0.46	0.58	0.34	0.51	0.77	0.11
Control Delay	50.8	0.7	50.2	18.0	48.6	10.1	24.2	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4	19.2	0.0
Total Delay	50.8	0.7	50.2	18.0	48.6	10.4	43.4	2.8
Queue Length 50th (ft)	64	0	50	12	32	179	386	0
Queue Length 95th (ft)	112	0	94	73	68	265	#658	23
Internal Link Dist (ft)		220	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	318	498	324	410	151	4130	1924	913
Starvation Cap Reductn	0	0	0	0	0	1254	483	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.11	0.25	0.41	0.34	0.73	1.03	0.11

Intersection Summary

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

12: Sierra College Blvd & Bass Pro Dr/Dominguez Rd

Lane Group	EBL	EBT	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	5	1	116	76	2	2083	92	87	1529	1
v/c Ratio	0.04	0.00	0.36	0.23	0.02	0.68	0.09	0.66	0.59	0.00
Control Delay	36.0	0.0	35.8	1.7	35.5	12.7	1.8	60.8	8.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
Total Delay	36.0	0.0	35.8	1.7	35.5	12.7	1.8	60.8	9.1	0.0
Queue Length 50th (ft)	2	0	25	0	1	206	0	39	120	0
Queue Length 95th (ft)	13	0	56	0	8	373	17	#121	417	0
Internal Link Dist (ft)		226				97			363	
Turn Bay Length (ft)	130		265	150	75		45	220		200
Base Capacity (vph)	116	730	355	834	116	3061	996	131	2570	1167
Starvation Cap Reductn	0	0	0	0	0	0	0	0	611	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.00	0.33	0.09	0.02	0.68	0.09	0.66	0.78	0.00

Intersection Summary

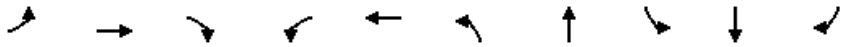
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

13: Sierra College Blvd & Stadium Dwy

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	125	78	27	1889	1547
v/c Ratio	0.28	0.28	0.17	0.70	0.44
Control Delay	25.6	9.6	28.4	7.1	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	9.6	28.4	7.1	6.7
Queue Length 50th (ft)	21	0	9	173	65
Queue Length 95th (ft)	41	31	30	284	168
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	1113	566	161	2705	3538
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.11	0.14	0.17	0.70	0.44

Intersection Summary

14: Sierra College Blvd & Rocklin Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	409	443	442	75	603	437	1496	226	1069	302
v/c Ratio	1.11	0.44	0.64	0.65	1.14	0.76	1.08	1.08	0.61	0.44
Control Delay	127.1	41.4	15.3	87.5	125.4	63.0	89.1	140.2	38.9	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.1	41.4	15.3	87.5	125.4	63.0	89.1	140.2	38.9	9.4
Queue Length 50th (ft)	~407	168	77	65	~284	188	~771	~220	289	33
Queue Length 95th (ft)	#615	221	200	#134	#409	248	#914	#390	340	111
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	370	996	686	120	531	610	1381	209	1750	688
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	0.44	0.64	0.63	1.14	0.72	1.08	1.08	0.61	0.44

Intersection Summary

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

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

15: Pacific St & Dominguez Rd/Delmar Ave

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	107	199	149	51	167	826	45	570	40
v/c Ratio	0.43	0.42	0.60	0.13	0.63	0.78	0.31	0.73	0.06
Control Delay	32.9	7.2	38.4	0.7	43.5	20.8	42.6	24.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	7.2	38.4	0.7	43.5	20.8	42.6	24.4	0.2
Queue Length 50th (ft)	47	0	68	0	78	296	22	207	0
Queue Length 95th (ft)	94	50	127	0	#175	#628	57	377	0
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	464	716	468	643	305	1176	145	987	784
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.28	0.32	0.08	0.55	0.70	0.31	0.58	0.05

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	34	173	506	521	404	46	863	783	218	804
v/c Ratio	0.22	0.56	0.98	1.00	0.60	0.43	0.69	1.01	1.08	0.54
Control Delay	60.0	62.3	82.6	86.8	16.0	73.5	40.2	59.8	140.8	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.0	62.3	82.6	86.8	16.0	73.5	40.2	59.8	140.8	31.1
Queue Length 50th (ft)	28	72	460	~477	85	39	333	~486	~210	278
Queue Length 95th (ft)	63	112	#731	#756	203	83	425	#790	#387	360
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	363	721	514	519	677	121	1258	776	202	1500
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.24	0.98	1.00	0.60	0.38	0.69	1.01	1.08	0.54

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	270	999	38	1217	545	51	31	288	285	292
v/c Ratio	0.93	0.58	0.35	0.99	0.79	0.41	0.23	0.72	0.71	0.49
Control Delay	82.0	22.7	57.3	59.5	24.4	58.6	39.5	46.8	46.0	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.0	22.7	57.3	59.5	24.4	58.6	39.5	46.8	46.0	6.5
Queue Length 50th (ft)	178	264	24	~421	159	33	13	183	180	0
Queue Length 95th (ft)	#365	373	61	#637	#379	76	45	278	275	63
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	291	1731	114	1224	691	123	133	526	530	698
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.58	0.33	0.99	0.79	0.41	0.23	0.55	0.54	0.42

Intersection Summary

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

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

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	1029	557	607	1541	48	344
v/c Ratio	1.01	0.70	0.97	0.64	0.13	0.91
Control Delay	66.3	10.0	63.4	10.2	31.7	62.5
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay	66.3	10.0	63.4	10.6	31.7	62.5
Queue Length 50th (ft)	~348	29	~400	266	24	182
Queue Length 95th (ft)	#491	143	#624	332	54	#338
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1022	798	625	2414	415	403
Starvation Cap Reductn	0	0	0	367	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.70	0.97	0.75	0.12	0.85

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	238	875	1672	447	435	409
v/c Ratio	0.96	0.38	0.98	0.99	0.97	0.75
Control Delay	98.4	10.2	48.1	84.7	75.8	31.3
Queue Delay	0.0	0.0	41.1	0.0	0.0	0.0
Total Delay	98.4	10.2	89.2	84.7	75.8	31.3
Queue Length 50th (ft)	186	151	647	364	337	174
Queue Length 95th (ft)	#346	188	#832	#590	#572	308
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	249	2329	1708	450	447	545
Starvation Cap Reductn	0	0	372	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.38	1.25	0.99	0.97	0.75

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	57	1508	22	1596	95	21
v/c Ratio	0.31	0.60	0.13	0.66	0.37	0.07
Control Delay	34.7	9.0	32.1	11.2	30.8	0.5
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	34.7	9.3	32.1	11.2	30.8	0.5
Queue Length 50th (ft)	23	120	9	239	37	0
Queue Length 95th (ft)	58	330	30	371	78	0
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	186	2498	170	2420	626	607
Starvation Cap Reductn	0	369	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.71	0.13	0.66	0.15	0.03

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	195	1166	20	1056	133	28	237	227
v/c Ratio	0.79	0.68	0.18	0.87	0.44	0.10	0.96	0.58
Control Delay	58.1	20.4	42.2	34.8	33.2	11.8	75.3	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	20.4	42.2	34.8	33.2	11.8	75.3	12.2
Queue Length 50th (ft)	90	175	9	235	59	1	81	0
Queue Length 95th (ft)	#252	#497	36	#498	106	21	#283	73
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	248	1727	113	1216	678	633	247	390
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.68	0.18	0.87	0.20	0.04	0.96	0.58

Intersection Summary

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

1: Taylor Rd & King Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	68	60	341	243	115	332	393	196	27	467
v/c Ratio	0.34	0.30	0.71	0.67	0.32	0.85	0.47	0.25	0.35	0.68
Control Delay	36.0	35.2	12.9	37.3	25.5	51.8	18.9	4.0	52.3	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	35.2	12.9	37.3	25.5	51.8	18.9	4.0	52.3	32.3
Queue Length 50th (ft)	28	24	0	96	37	135	101	0	11	94
Queue Length 95th (ft)	66	59	46	177	83	#334	240	31	#44	157
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	669	668	818	716	703	392	895	818	77	1022
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.09	0.42	0.34	0.16	0.85	0.44	0.24	0.35	0.46

Intersection Summary

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

2: Taylor Rd & Horseshoe Bar Rd

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	36	116	295	17	635	98	356	757
v/c Ratio	0.15	0.48	0.42	0.11	0.81	0.14	0.75	0.55
Control Delay	22.4	34.6	9.3	34.9	29.1	2.7	36.8	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.4	34.6	9.3	34.9	29.1	2.7	36.8	8.6
Queue Length 50th (ft)	11	49	46	7	240	0	147	116
Queue Length 95th (ft)	33	94	92	26	#449	18	#289	367
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	524	448	773	168	973	838	570	1384
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.26	0.38	0.10	0.65	0.12	0.62	0.55

Intersection Summary

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

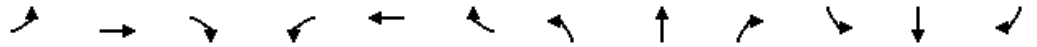
3: Horseshoe Bar Rd & I-80 WB Ramp

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	112	65	72	106	154	458	34	151	353
v/c Ratio	0.67	0.10	0.37	0.47	0.58	0.38	0.24	0.42	0.59
Control Delay	49.0	1.2	38.4	30.6	39.6	18.4	40.1	30.8	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	1.2	38.4	30.6	39.6	18.4	40.1	30.8	7.9
Queue Length 50th (ft)	37	0	28	27	60	66	13	58	0
Queue Length 95th (ft)	#163	6	78	85	138	131	48	124	64
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	167	647	471	493	509	1793	166	595	758
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.10	0.15	0.22	0.30	0.26	0.20	0.25	0.47

Intersection Summary

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

6: Sierra College Blvd & Taylor Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	148	229	145	538	204	26	150	818	504	31	811	131
v/c Ratio	0.69	0.57	0.32	0.94	0.43	0.05	0.91	0.60	0.44	0.29	0.80	0.16
Control Delay	53.5	35.3	6.9	63.4	29.4	0.2	91.3	24.3	4.1	46.7	35.9	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.5	35.3	6.9	63.4	29.4	0.2	91.3	24.3	4.1	46.7	35.9	3.3
Queue Length 50th (ft)	75	109	0	146	91	0	80	161	19	16	206	0
Queue Length 95th (ft)	#167	177	44	#269	153	0	#206	293	96	46	#327	30
Internal Link Dist (ft)		429			1915			582			326	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	233	542	555	570	595	603	165	1366	1133	108	1027	827
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.42	0.26	0.94	0.34	0.04	0.91	0.60	0.44	0.29	0.79	0.16

Intersection Summary

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

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	72	224	69	1551	90	1372
v/c Ratio	0.20	0.62	0.18	0.85	0.83	0.60
Control Delay	3.6	30.9	3.2	19.5	85.2	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.6	30.9	3.2	19.5	85.2	8.2
Queue Length 50th (ft)	0	78	0	254	36	143
Queue Length 95th (ft)	16	140	14	#425	#111	207
Internal Link Dist (ft)				226		582
Turn Bay Length (ft)	860	100	1000		170	
Base Capacity (vph)	458	420	423	1827	109	2299
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.53	0.16	0.85	0.83	0.60

Intersection Summary

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	147	24	310	123	25	24	314	1338	102	67	1470	131
v/c Ratio	0.72	0.19	0.64	0.75	0.24	0.12	0.85	0.59	0.10	0.49	0.86	0.16
Control Delay	73.1	56.9	12.5	82.3	60.2	1.3	68.3	15.4	3.7	65.6	34.1	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Total Delay	73.1	56.9	12.5	82.3	60.2	1.3	68.3	17.4	3.7	65.6	34.1	6.2
Queue Length 50th (ft)	115	18	0	96	19	0	240	321	6	51	522	13
Queue Length 95th (ft)	#236	46	48	#199	49	0	#408	432	31	100	655	49
Internal Link Dist (ft)		707			453			403			1015	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	205	468	944	163	432	476	369	2253	1024	175	1718	816
Starvation Cap Reductn	0	0	0	0	0	0	0	724	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.05	0.33	0.75	0.06	0.05	0.85	0.88	0.10	0.38	0.86	0.16

Intersection Summary

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

9: Sierra College Blvd & I-80 WB Ramps

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	255	573	628	262	230	594	1235	435	1651	272
v/c Ratio	1.43	0.85	0.60	0.86	0.71	1.10	0.39	0.38	1.18	0.51
Control Delay	268.3	39.5	44.8	81.5	44.5	113.8	16.3	3.8	132.3	29.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4
Total Delay	268.3	39.5	44.8	81.5	44.5	113.8	16.3	3.8	132.7	29.8
Queue Length 50th (ft)	~327	285	261	249	131	~638	228	42	~685	130
Queue Length 95th (ft)	#509	#587	296	337	220	m#944	m282	m78	#782	222
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	178	677	1373	463	451	542	3138	1134	1404	536
Starvation Cap Reductn	0	0	0	0	0	0	0	0	142	51
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.43	0.85	0.46	0.57	0.51	1.10	0.39	0.38	1.31	0.56

Intersection Summary

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

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

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

10: Sierra College Blvd & I-80 EB Ramps

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	630	373	165	245	556	1384	238	631	1160	367
v/c Ratio	0.61	0.81	0.56	0.97	1.35	0.59	0.31	0.87	0.53	0.33
Control Delay	45.8	75.3	29.7	110.2	207.6	37.5	4.8	54.7	8.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	5.5	0.7	0.0	0.0	0.0
Total Delay	45.8	75.3	29.7	110.2	207.6	43.0	5.5	54.7	8.0	0.6
Queue Length 50th (ft)	263	184	52	235	~636	299	1	314	148	0
Queue Length 95th (ft)	311	233	126	#409	#886	353	59	m#347	m168	m0
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	1039	1018	521	257	413	2329	761	729	2184	1106
Starvation Cap Reductn	0	0	0	0	0	876	268	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.37	0.32	0.95	1.35	0.95	0.48	0.87	0.53	0.33

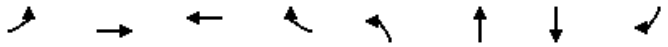
Intersection Summary

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

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

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

11: Sierra College Blvd & Schriber Way



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	142	79	94	185	84	1609	1347	155
v/c Ratio	0.58	0.16	0.57	0.55	0.47	0.44	0.90	0.21
Control Delay	45.3	0.7	49.1	14.9	49.0	12.1	36.3	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Delay	45.3	0.7	49.1	14.9	49.0	12.1	70.3	6.6
Queue Length 50th (ft)	77	0	51	15	45	136	379	10
Queue Length 95th (ft)	128	0	95	71	#124	214	#595	52
Internal Link Dist (ft)		235	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	354	559	240	425	179	3641	1498	743
Starvation Cap Reductn	0	0	0	0	0	0	239	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.14	0.39	0.44	0.47	0.44	1.07	0.21

Intersection Summary

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

12: Sierra College Blvd & Bass Pro Dr/Dominguez Rd

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	3	3	118	1	105	1	1564	130	126	1369	5
v/c Ratio	0.02	0.01	0.31	0.00	0.36	0.01	0.58	0.14	0.61	0.53	0.00
Control Delay	30.3	0.0	29.8	27.0	8.3	30.0	12.4	3.3	43.3	8.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay	30.3	0.0	29.8	27.0	8.3	30.0	12.4	3.3	43.3	8.3	0.0
Queue Length 50th (ft)	1	0	21	0	0	0	138	2	46	95	0
Queue Length 95th (ft)	9	0	50	5	31	5	253	30	#137	351	0
Internal Link Dist (ft)		226		372			97			363	
Turn Bay Length (ft)	130		265		150	75		45	220		200
Base Capacity (vph)	144	912	398	1062	960	144	2712	908	207	2572	1181
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	431	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.00	0.30	0.00	0.11	0.01	0.58	0.14	0.61	0.64	0.00

Intersection Summary

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

13: Sierra College Blvd & Stadium Dwy

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	40	22	16	1747	1570
v/c Ratio	0.10	0.11	0.09	0.60	0.40
Control Delay	21.6	11.1	23.3	5.0	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	11.1	23.3	5.0	4.9
Queue Length 50th (ft)	7	0	6	132	60
Queue Length 95th (ft)	15	15	18	210	161
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	1203	585	172	2897	3914
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.03	0.04	0.09	0.60	0.40

Intersection Summary

14: Sierra College Blvd & Rocklin Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	313	313	351	99	506	367	1300	197	1024	253
v/c Ratio	0.93	0.31	0.53	0.97	0.81	0.70	1.04	0.96	0.64	0.39
Control Delay	76.7	29.9	9.2	131.5	40.6	49.1	69.7	101.2	32.9	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.7	29.9	9.2	131.5	40.6	49.1	69.7	101.2	32.9	5.4
Queue Length 50th (ft)	209	85	26	68	121	121	~503	134	218	0
Queue Length 95th (ft)	#374	123	106	#176	182	171	#640	#278	267	56
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	342	1059	676	102	661	553	1251	205	1611	653
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.30	0.52	0.97	0.77	0.66	1.04	0.96	0.64	0.39

Intersection Summary

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

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

15: Pacific St & Dominguez Rd/Delmar Ave

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	89	107	62	46	118	494	44	532	89
v/c Ratio	0.38	0.30	0.29	0.13	0.60	0.44	0.27	0.60	0.11
Control Delay	24.3	7.4	22.6	1.7	39.3	10.1	27.7	14.8	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	7.4	22.6	1.7	39.3	10.1	27.7	14.8	3.2
Queue Length 50th (ft)	25	0	17	0	36	59	13	118	0
Queue Length 95th (ft)	59	32	45	6	#107	208	40	232	20
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	676	838	622	857	198	1122	161	921	811
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.13	0.10	0.05	0.60	0.44	0.27	0.58	0.11

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	31	138	367	374	247	15	661	593	212	594
v/c Ratio	0.18	0.38	0.73	0.75	0.39	0.18	0.64	0.79	1.30	0.40
Control Delay	39.7	36.2	37.7	38.4	5.3	47.3	30.2	18.4	207.1	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.7	36.2	37.7	38.4	5.3	47.3	30.2	18.4	207.1	19.6
Queue Length 50th (ft)	17	34	193	197	0	9	170	94	~163	116
Queue Length 95th (ft)	44	63	310	#318	53	30	236	#261	#309	195
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	597	1176	562	563	687	85	1139	783	163	1479
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.12	0.65	0.66	0.36	0.18	0.58	0.76	1.30	0.40

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	278	795	23	769	536	46	39	254	251	272
v/c Ratio	0.93	0.47	0.21	0.73	0.70	0.32	0.25	0.64	0.63	0.48
Control Delay	77.0	19.1	46.6	33.3	10.8	47.2	27.9	38.2	37.8	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.0	19.1	46.6	33.3	10.8	47.2	27.9	38.2	37.8	6.4
Queue Length 50th (ft)	154	133	12	196	32	25	8	135	133	0
Queue Length 95th (ft)	#353	275	40	306	160	64	42	214	211	56
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	298	1680	113	1113	786	145	157	627	629	747
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.47	0.20	0.69	0.68	0.32	0.25	0.41	0.40	0.36

Intersection Summary

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

18: I-80 WB Ramps & Rocklin Rd

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	856	503	538	1163	35	204
v/c Ratio	0.70	0.58	0.84	0.42	0.16	0.73
Control Delay	31.3	5.7	39.1	4.5	34.5	34.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	5.7	39.1	4.5	34.5	34.3
Queue Length 50th (ft)	221	0	269	88	18	58
Queue Length 95th (ft)	#364	80	#445	171	42	122
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1225	868	644	2743	443	478
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.58	0.84	0.42	0.08	0.43

Intersection Summary

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

19: I-80 EB Ramps & Rocklin Rd

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	184	756	1270	403	390	366
v/c Ratio	0.81	0.36	0.88	0.89	0.85	0.67
Control Delay	56.6	7.5	27.0	47.2	38.0	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.6	7.5	27.0	47.2	38.0	16.6
Queue Length 50th (ft)	72	72	235	160	132	57
Queue Length 95th (ft)	#168	102	#367	#316	#293	149
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	233	2119	1438	458	464	548
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.36	0.88	0.88	0.84	0.67

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	64	1182	13	1143	99	17
v/c Ratio	0.28	0.49	0.06	0.54	0.33	0.05
Control Delay	25.5	7.3	22.8	10.5	22.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	7.3	22.8	10.5	22.5	0.2
Queue Length 50th (ft)	18	74	4	133	28	0
Queue Length 95th (ft)	50	222	17	217	62	0
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	230	2403	211	2135	806	777
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.49	0.06	0.54	0.12	0.02

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	35	1084	20	1040	115	17	57	54
v/c Ratio	0.21	0.53	0.12	0.53	0.32	0.05	0.34	0.17
Control Delay	35.1	15.1	34.3	16.5	23.8	10.8	24.5	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	15.1	34.3	16.5	23.8	10.8	24.5	1.2
Queue Length 50th (ft)	11	121	6	115	34	0	7	0
Queue Length 95th (ft)	48	#420	32	#394	80	14	#56	0
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	167	2063	167	1984	1004	858	166	317
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.53	0.12	0.52	0.11	0.02	0.34	0.17

Intersection Summary

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

Cumulative Conditions – Short Term Plus Project

Project Driveway Option A

Cumulative Short-Term plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	200	970	350	280	490	-	65	215	150	95	585	-
2	Taylor Road & Horseshoe Bar Road	100	400	125	190	380	-	-	115	-	-	160	160
3	Horseshoe Bar Road & I-80 Westbound Ramp	85	680	-	160	450	95	-	935	250	275	95	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	2,350	100	-	685	-	-	-	-	-	1,080	-
5	Barton Road & Brace Road	-	2,895	-	-	-	-	-	1,980	-	-	560	-
6	Sierra College Boulevard & Taylor Road	210	550	550	210	1,500	450	150	900	250	215	2,060	215
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	60	230	150
9	Sierra College Boulevard & I-80 WB Ramps	200	1,530	325	-	370	150	530	-	530	740	1,320	740
10	Sierra College Boulevard & I-80 EB Ramps	-	710	280	250	1,530	500	1,315	1,315	205	345	-	330
11	Sierra College Boulevard & Schriber Way	90	395	-	-	300	100	200	200	-	-	415	415
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	75	1,675	45	220	710	200	130	260	-	265	745	150
13	Sierra College Boulevard & Stadium Dwy	200	1,580	-	-	1,690	-	200	-	60	-	-	-
14	Sierra College Boulevard & Rocklin Road	245	650	-	245	1,575	175	240	925	925	315	1,325	-
15	Pacific Street & Dominguez Road/Delmar Avenue	210	1,860	-	200	850	150	-	700	315	-	1,935	140
16	Pacific Street & Rocklin Road	265	420	110	230	410	-	130	285	-	250	330	330
17	Granite Drive & Rocklin Road	100	140	-	325	625	625	225	675	-	135	650	150
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	635	1,165	-	-	580	280	300	555	-
19	I-80 Eastbound Ramps & Rocklin Road	455	1,115	455	-	-	-	170	520	-	-	370	-
20	Aguilar Road & Rocklin Road	320	-	320	-	-	-	75	400	-	85	1,260	-
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
22	Dominguez Road & Granite Driive	220	1,390	-	-	730	-	370	-	50	-	-	-
23	El Don Drive & Rocklin Road	140	530	-	-	580	95	410	1,260	-	265	1,430	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	900	40	-	150	-	-	1,900	600	465	2,500	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	4,500	-	100	1,300	-	-	-	-	1,450	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	105	1,100	210	105	3,100	-	-	85	30	-	910	30
29	Taylor Road & English Colony Way-Rock Springs Road	150	1,900	-	140	350	115	-	560	30	-	940	-
30	Taylor Road & Penryn Road (North	85	170	-	-	555	-	55	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	2,600	-	85	180	-	-	-	-	495	-	-
32	Taylor Road & Del Oro High School North Lot	-	185	-	70	1,600	-	-	-	-	200	-	45
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Drop Off	150	300	-	90	190	-	-	50	-	-	75	-
34	Taylor Road & Del Oro High School South Lot	-	1,200	-	150	300	-	-	-	-	65	-	65
35	Taylor Road & Rippey Road	140	465	-	-	610	-	3,500	-	-	-	-	-
36	Taylor Road & Webb Street	0	150	0	0	0	0	0	0	0	150	0	0
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

Cumulative-Short TermP AM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#335**	385	36	#102	210	-	**187**	139	58	**147**	238	-
2	Taylor Road & Horseshoe Bar Road	7	#284	3	**#327**	141	-	-	55	-	-	58	**180**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**162**	194	-	34	201	**98**	-	#155	42	66	80	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	8	-	-	-	-	-	365	-	-
5	Barton Road & Brace Road	18	-	-	-	-	-	-	-	-	-	5	-
6	Sierra College Boulevard & Taylor Road	**#215**	144	34	44	#418	35	**#159**	168	6	#150	157	-
7	Sierra College Boulevard & Brace Road	-	101	15	#107	190	-	-	-	-	#97	-	17
8	Sierra College Boulevard & Granite Drive	**325**	336	39	138	**#878**	51	162	52	47	**205**	76	-
9	Sierra College Boulevard & I-80 WB Ramps	**m#202**	83	5	-	**477**	4	45	-	63	313	196	140
10	Sierra College Boulevard & I-80 EB Ramps	-	231	-	105	303	11	200	67	152	80	-	60
11	Sierra College Boulevard & Schriber Way	23	105	-	-	**573**	-	23	-	-	-	171	45
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	-	154	-	60	322	-	10	-	-	30	6	-
13	Sierra College Boulevard & Stadium Dwy	68	76	-	-	205	-	14	-	11	-	-	-
14	Sierra College Boulevard & Rocklin Road	**#321**	#340	-	#211	201	39	#162	114	132	#228	191	-
15	Pacific Street & Dominguez Road/Delmar Avenue	#130	#308	-	40	218	10	-	55	41	-	92	10
16	Pacific Street & Rocklin Road	82	266	**#458**	**#437**	281	-	57	93	-	**#511**	**#532**	61
17	Granite Drive & Rocklin Road	26	34	-	177	174	39	#199	391	-	34	#342	**#242**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	53	150	-	-	#400	74	m280	m334	-
19	I-80 Eastbound Ramps & Rocklin Road	**#555**	#468	#422	-	-	-	**m#219**	143	-	-	**#458**	-
20	Aguilar Road & Rocklin Road	131	-	2	-	-	-	64	**489**	-	24	213	-
21	Sierra College Boulevard & Driveway South of Brace Road	2	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	8	-	-	-	-	-	30	-	15	-	-	-
23	El Don Drive & Rocklin Road	**173**	35	-	-	#61	-	**#669**	373	-	30	#468	-
24	Sierra College Boulevard & Project Driveway	-	91	10	45	179	-	-	-	-	43	-	24
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	173	15	-	-	-	-	88	435	48	80	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	10	-	-	-	-	-	18	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	3	-	-	75	-
29	Taylor Road & English Colony Way-Rock Springs Road	25	93	-	-	190	25	-	43	**68**	-	58	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	33	-	-	-	-	-	478	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	28	-	-	-	-	-	68	-	20
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dro	0	-	-	15	-	-	-	-	-	-	**568**	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	18	-	-	-	-	-	**165**	-	18
35	Taylor Road & Rippey Road	8	-	-	-	-	-	10	-	-	-	-	-
36	Taylor Road & Webb Street	15	-	-	3	-	-	-	-	55	-	8	-
37	Project Driveway East & Brace Road	-	0	-	-	-	-	-	-	-	0	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Short TermP PM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#469**	374	45	#86	224	-	**80**	138	87	**174**	162	-
2	Taylor Road & Horseshoe Bar Road	37	**#590**	18	**#384**	369	-	-	52	-	-	89	**236**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**110**	188	-	63	163	66	-	#172	17	110	64	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	8	-	-	-	-	-	388	-
5	Barton Road & Brace Road	-	25	-	-	-	-	-	-	-	-	3	-
6	Sierra College Boulevard & Taylor Road	**#256**	**#580**	161	44	337	36	**#250**	#282	71	**#292**	296	-
7	Sierra College Boulevard & Brace Road	-	253	16	#124	241	-	-	-	#29	**#160**	-	33
8	Sierra College Boulevard & Granite Drive	**470**	**#1250**	33	114	**#1520**	89	**282**	57	53	**175**	59	-
9	Sierra College Boulevard & I-80 WB Ramps	**m#753**	m514	m22	-	**#1101**	**182**	#429	-	185	273	#466	340
10	Sierra College Boulevard & I-80 EB Ramps	-	464	70	m218	m475	m179	437	194	129	**#382**	-	**#823**
11	Sierra College Boulevard & Schriber Way	68	272	-	-	**#683**	23	112	-	-	-	94	73
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	8	383	17	#121	434	-	13	-	-	56	-	-
13	Sierra College Boulevard & Stadium Dwy	30	295	-	-	173	-	41	-	31	-	-	-
14	Sierra College Boulevard & Rocklin Road	**248**	**#934**	-	**#397**	347	117	**#626**	221	201	#134	#408	-
15	Pacific Street & Dominguez Road/Delmar Avenue	#175	#654	-	57	399	-	-	94	50	-	127	-
16	Pacific Street & Rocklin Road	83	**431**	**#802**	**#387**	372	-	78	112	-	**#738**	**#763**	204
17	Granite Drive & Rocklin Road	76	45	-	278	275	66	**#378**	373	-	61	#637	**#379**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	54	#338	-	-	#491	143	**#624**	332	-
19	I-80 Eastbound Ramps & Rocklin Road	**#590**	#572	308	-	-	-	**#346**	188	-	-	**#832**	-
20	Aguilar Road & Rocklin Road	78	-	-	-	-	-	58	330	-	32	371	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	5	-	-	-
22	Dominguez Road & Granite Driive	13	-	-	-	-	-	58	-	13	-	-	-
23	El Don Drive & Rocklin Road	106	22	-	-	#284	73	#252	#499	-	41	#499	-
24	Sierra College Boulevard & Project Driveway	-	#339	41	#147	338	-	-	-	-	111	-	40
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	725	38	-	-	-	-	105	163	35	88	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	18	-	-	-	-	-	123	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	8	-	-	148	3
29	Taylor Road & English Colony Way-Rock Springs Road	25	133	-	3	45	15	-	30	20	-	23	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	13	-	-	-	-	-	120	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	10	-	-
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dro	-	-	-	-	-	-	-	-	-	-	13	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	3	-	-	-	-	-	55	-	8
35	Taylor Road & Rippey Road	3	-	-	-	-	-	8	-	-	-	-	-
36	Taylor Road & Webb Street	40	-	-	-	-	-	-	-	70	-	23	-
37	Project Driveway East & Brace Road	-	3	-	-	-	-	-	-	-	-	0	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Short TermP SAT

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#360**	263	32	#45	169	-	**66**	60	46	**185**	83	-
2	Taylor Road & Horseshoe Bar Road	26	**#507**	18	**#289**	**416**	-	-	33	-	-	94	99
3	Horseshoe Bar Road & I-80 Westbound Ramp	**138**	131	-	48	124	64	-	#163	6	78	85	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	5	-	-	-	-	-	185	-
5	Barton Road & Brace Road	-	75	-	-	-	-	-	-	-	-	8	-
6	Sierra College Boulevard & Taylor Road	**#269**	311	128	46	#354	30	**#167**	177	71	**#303**	153	-
7	Sierra College Boulevard & Brace Road	-	195	15	#109	263	-	-	-	-	**#171**	-	10
8	Sierra College Boulevard & Granite Drive	**366**	**#968**	51	111	**#1394**	96	**221**	52	50	**175**	54	-
9	Sierra College Boulevard & I-80 WB Ramps	**m#1011**	m311	m18	-	**#1063**	**241**	#509	-	**#636**	280	#507	369
10	Sierra College Boulevard & I-80 EB Ramps	-	372	66	**m280**	m412	m105	381	233	126	**#409**	-	**#886**
11	Sierra College Boulevard & Schriber Way	**#124**	226	-	-	**#633**	52	128	-	-	-	95	72
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	5	267	30	#137	375	-	9	-	-	50	5	31
13	Sierra College Boulevard & Stadium Dwy	18	227	-	-	170	-	15	-	15	-	-	-
14	Sierra College Boulevard & Rocklin Road	171	**#673**	-	**#290**	279	58	**#394**	123	106	#176	#184	-
15	Pacific Street & Dominguez Road/Delmar Avenue	#107	236	-	40	#260	21	-	59	32	-	45	6
16	Pacific Street & Rocklin Road	30	245	**#312**	**#309**	209	-	65	63	-	**#320**	#326	53
17	Granite Drive & Rocklin Road	64	42	-	214	211	58	**#381**	275	-	40	306	**160**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	42	122	-	-	#364	80	**#445**	171	-
19	I-80 Eastbound Ramps & Rocklin Road	#316	#293	149	-	-	-	#168	102	-	-	#367	-
20	Aguilar Road & Rocklin Road	62	-	-	-	-	-	50	222	-	20	217	-
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	13	-	-	-	-	-	48	-	13	-	-	-
23	El Don Drive & Rocklin Road	80	17	-	-	#56	-	48	#423	-	40	#396	-
24	Sierra College Boulevard & Project Driveway	-	#270	104	**#195**	317	-	-	-	-	139	-	47
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	368	**48**	-	5	-	-	88	215	330	65	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	-	-	5	-	-	-	-	-	45	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	-	-	-	-	5	-	-	143	-
29	Taylor Road & English Colony Way-Rock Springs Road	53	218	-	3	140	20	-	65	**63**	-	45	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	-	-	10	-	-	-	-	-	60	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	-	-	-
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dro	-	-	-	3	-	-	-	-	-	-	63	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	3	-	-	-	-	-	55	-	8
35	Taylor Road & Rippey Road	8	-	-	-	-	-	13	-	-	-	-	-
36	Taylor Road & Webb Street	35	-	-	-	-	-	-	-	263	-	-	-
37	Project Driveway East & Brace Road	-	3	-	-	-	-	-	-	-	-	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Short TermP AM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0.87%	0.76%	1.03%	0.00%	0.93%	0.00%	0.00%	0.00%	0.84%	0.70%	0.00%	0.00%
2	0.00%	1.69%	0.00%	0.00%	1.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	-	0.00%	0.00%	0.00%	0.00%	-	-	-	-	0.00%	-	0.00%
5	2.56%	-	0.00%	-	-	-	-	0.59%	2.86%	0.00%	0.86%	-
6	4.35%	1.58%	3.27%	0.00%	0.73%	0.00%	0.00%	0.00%	6.36%	2.80%	0.00%	0.00%
7	-	2.59%	0.00%	0.00%	1.79%	0.00%	-	-	0.00%	0.00%	-	2.06%
8	0.00%	14.37%	0.00%	0.00%	8.85%	3.13%	2.75%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0.00%	6.22%	0.00%	-	7.03%	0.00%	0.00%	-	0.00%	0.00%	0.00%	18.79%
10	-	0.97%	0.00%	0.00%	0.80%	17.09%	10.95%	0.00%	0.00%	0.00%	-	0.00%
11	0.00%	1.14%	0.00%	-	0.68%	0.00%	0.00%	-	0.00%	0.00%	-	0.00%
12	-	1.07%	0.00%	0.00%	0.65%	0.00%	0.00%	-	0.00%	0.00%	0.00%	0.00%
13	0.00%	1.10%	-	-	0.71%	0.00%	0.00%	-	0.00%	-	-	-
14	0.00%	1.00%	0.00%	0.68%	0.84%	0.81%	1.54%	0.00%	0.00%	0.00%	0.00%	0.61%
15	0.00%	1.73%	0.00%	0.00%	1.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	0.00%	0.80%	0.34%	0.00%	0.65%	17.39%	13.79%	0.00%	0.00%	0.37%	0.00%	0.00%
17	0.00%	0.00%	0.00%	0.00%	0.00%	2.05%	1.91%	0.00%	0.00%	0.00%	0.00%	0.00%
18	-	-	-	0.00%	-	0.00%	-	0.00%	0.00%	0.00%	0.00%	-
19	0.00%	0.00%	0.00%	-	-	-	0.00%	0.00%	-	-	0.00%	0.00%
20	0.00%	-	3.85%	-	-	-	0.00%	0.00%	0.00%	9.09%	0.00%	-
21	0.00%	2.28%	-	-	1.50%	0.00%	-	-	-	-	-	-
22	0.00%	1.75%	-	-	1.08%	0.00%	0.00%	-	0.00%	-	-	-
23	0.00%	0.00%	4.76%	0.00%	0.00%	0.00%	0.00%	0.11%	0.00%	7.69%	0.16%	0.00%
24	-	-4.40%	100.00%	100.00%	-2.46%	-	-	-	-	100.00%	-	100.00%
25	-	-	-	-	-	-	-	0.00%	-	-	0.90%	-
26	0.98%	-	1.27%	0.00%	-	0.00%	-	0.00%	0.56%	0.63%	0.00%	-
27	-	1.41%	20.00%	0.00%	0.61%	-	-	-	-	25.00%	-	0.00%
28	0.00%	1.41%	2.38%	0.00%	0.61%	0.00%	0.00%	0.00%	0.00%	2.50%	0.00%	0.00%
29	1.22%	0.57%	0.00%	0.00%	0.35%	0.00%	0.00%	0.00%	0.55%	0.00%	0.00%	0.00%
30	0.00%	0.68%	-	-	0.34%	-	-	-	0.00%	-	-	-
31	-	1.03%	0.79%	0.00%	0.56%	-	-	-	-	1.16%	-	0.00%
32	-	1.09%	0.00%	0.00%	0.57%	-	-	-	-	0.00%	-	0.00%
33	0.00%	1.05%	0.00%	0.00%	0.75%	0.00%	-	-	0.00%	0.00%	-	0.00%
34	-	0.84%	0.00%	0.00%	0.70%	-	-	-	-	0.00%	-	0.00%
35	1.75%	0.31%	-	-	0.43%	-	0.00%	-	2.50%	-	-	-
36	0.70%	0.80%	0.00%	0.00%	0.94%	0.00%	-	-	0.53%	0.00%	0.00%	0.00%
37	-	-	-	-	-	-	-	0.00%	-	-	0.00%	-

Notes:

Shading indicates Project impact.

Cumulative Short TermP PM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	1.68%	2.39%	2.17%	0.00%	2.75%	0.00%	0.00%	0.00%	1.43%	2.60%	0.00%	0.00%
2	0.00%	3.59%	0.00%	0.00%	3.40%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	-	0.00%	0.00%	0.00%	0.00%	-	-	-	-	0.00%	-	0.00%
5	3.28%	-	0.00%	-	-	-	-	2.13%	4.35%	0.00%	1.86%	-
6	13.04%	1.75%	5.25%	0.00%	2.47%	0.00%	0.00%	0.00%	10.99%	4.92%	0.00%	0.00%
7	-	3.79%	0.00%	6.09%	4.23%	-	-	-	0.00%	0.00%	-	2.42%
8	0.00%	15.40%	0.00%	0.00%	17.18%	7.14%	4.57%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0.00%	8.11%	0.00%	-	14.99%	0.00%	0.00%	-	0.00%	0.00%	0.00%	31.67%
10	-	1.57%	0.00%	0.00%	2.43%	25.93%	14.29%	0.00%	0.00%	0.00%	-	0.00%
11	0.00%	1.63%	0.00%	-	2.16%	0.00%	0.00%	-	0.00%	0.00%	-	0.00%
12	0.00%	1.49%	0.00%	0.00%	2.09%	0.00%	0.00%	-	0.00%	0.00%	-	0.00%
13	0.00%	1.59%	-	-	2.09%	0.00%	0.00%	-	0.00%	-	-	-
14	0.00%	1.42%	0.00%	1.87%	1.97%	2.09%	1.55%	0.00%	0.00%	0.00%	0.00%	1.79%
15	0.00%	3.07%	0.00%	0.00%	3.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	0.00%	1.22%	0.81%	0.00%	1.49%	29.73%	23.81%	0.00%	0.00%	0.74%	0.00%	0.00%
17	0.00%	0.00%	0.00%	0.00%	0.00%	3.11%	3.36%	0.00%	0.00%	0.00%	0.00%	0.00%
18	-	-	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%	0.00%	-
19	0.00%	0.00%	0.00%	-	-	-	0.00%	0.00%	-	-	0.00%	0.00%
20	0.00%	-	9.52%	-	-	-	0.00%	0.00%	0.00%	9.09%	0.00%	-
21	0.00%	3.40%	-	-	3.36%	0.00%	-	-	0.00%	-	-	-
22	0.00%	2.13%	-	-	2.80%	0.00%	0.00%	-	0.00%	-	-	-
23	0.00%	0.00%	14.81%	0.00%	0.00%	0.00%	0.00%	0.21%	0.00%	18.18%	0.21%	0.00%
24	-	-5.55%	100.00%	100.00%	-5.57%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	0.93%	-
26	1.36%	-	2.34%	-	-	-	0.00%	0.00%	2.09%	3.03%	0.00%	-
27	-	1.42%	11.11%	0.00%	2.24%	-	-	-	-	12.50%	-	0.00%
28	0.00%	1.59%	2.27%	0.00%	2.48%	0.00%	0.00%	0.00%	0.00%	3.70%	0.00%	0.00%
29	1.83%	1.61%	0.00%	0.00%	2.35%	0.00%	0.00%	0.00%	2.02%	0.00%	0.00%	0.00%
30	0.00%	1.29%	-	-	1.79%	0.00%	-	-	0.00%	-	-	-
31	-	2.01%	3.39%	0.00%	2.82%	-	-	-	-	2.63%	-	0.00%
32	-	2.18%	0.00%	0.00%	2.11%	-	-	-	-	0.00%	-	0.00%
33	-	2.19%	0.00%	0.00%	1.89%	-	-	-	-	0.00%	-	0.00%
34	-	2.17%	0.00%	0.00%	1.89%	-	-	-	-	0.00%	-	0.00%
35	6.06%	1.61%	-	-	1.74%	0.00%	0.00%	-	5.13%	-	-	-
36	1.75%	2.18%	0.00%	0.00%	2.14%	0.00%	-	-	2.68%	0.00%	0.00%	0.00%
37	100.00%	-	100.00%	-	-	-	-	1.00%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

Cumulative Short TermP SAT

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	3.93%	5.64%	4.79%	0.00%	5.60%	0.00%	0.00%	0.00%	4.17%	3.90%	0.00%	0.00%
2	0.00%	7.60%	0.00%	0.00%	6.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	-	0.00%	0.00%	0.00%	0.00%	-	-	-	-	0.00%	-	0.00%
5	3.33%	0.00%	0.00%	0.00%	-	0.00%	-	5.88%	2.99%	0.00%	6.11%	-
6	21.67%	4.71%	8.85%	0.00%	4.87%	0.00%	0.00%	0.00%	23.16%	8.66%	0.00%	0.00%
7	-	8.22%	0.00%	14.85%	7.97%	-	-	-	0.00%	0.00%	-	8.33%
8	0.00%	23.48%	0.00%	0.00%	21.13%	11.89%	11.32%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0.00%	12.99%	0.00%	-	19.26%	0.00%	0.00%	-	0.00%	0.00%	0.00%	44.29%
10	-	4.21%	0.00%	0.00%	4.74%	36.77%	16.30%	0.00%	0.00%	0.00%	-	0.00%
11	0.00%	4.13%	0.00%	-	4.15%	0.00%	0.00%	-	0.00%	0.00%	-	0.00%
12	0.00%	3.74%	0.00%	0.00%	4.05%	0.00%	0.00%	-	0.00%	0.00%	0.00%	0.00%
13	0.00%	3.54%	-	-	3.80%	0.00%	0.00%	-	0.00%	-	-	-
14	0.00%	3.36%	0.00%	3.57%	3.72%	4.33%	3.85%	0.00%	0.00%	0.00%	0.00%	3.72%
15	0.00%	9.49%	0.00%	0.00%	7.46%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	0.00%	3.27%	2.11%	0.00%	3.62%	44.44%	42.00%	0.00%	0.00%	1.88%	0.00%	0.00%
17	0.00%	0.00%	0.00%	0.00%	0.00%	6.23%	6.45%	0.00%	0.00%	0.00%	0.00%	0.00%
18	-	-	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%	0.00%	-
19	0.00%	0.00%	0.00%	-	-	-	0.00%	0.00%	-	-	0.00%	0.00%
20	0.00%	-	20.00%	-	-	-	0.00%	0.00%	0.00%	25.00%	0.00%	-
21	0.00%	7.29%	-	-	6.65%	-	-	-	-	-	-	-
22	0.00%	3.86%	-	-	4.47%	0.00%	0.00%	-	0.00%	-	-	-
23	0.00%	0.00%	34.78%	0.00%	0.00%	0.00%	0.00%	0.43%	0.00%	26.92%	0.41%	0.00%
24	-	-8.41%	100.00%	100.00%	-7.16%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	2.09%	-
26	4.21%	0.00%	5.03%	0.00%	0.00%	0.00%	0.00%	0.00%	4.78%	2.26%	0.00%	0.00%
27	-	4.01%	20.00%	0.00%	4.63%	-	-	-	-	16.00%	-	0.00%
28	0.00%	4.43%	7.41%	0.00%	4.90%	0.00%	0.00%	0.00%	0.00%	5.48%	0.00%	0.00%
29	3.77%	4.42%	0.00%	0.00%	4.42%	0.00%	0.00%	0.00%	3.08%	0.00%	0.00%	0.00%
30	0.00%	3.14%	-	-	3.43%	0.00%	0.00%	-	0.00%	-	-	-
31	-	4.44%	6.06%	0.00%	5.06%	-	-	-	-	5.13%	-	0.00%
32	-	4.34%	0.00%	-	3.83%	-	-	-	-	0.00%	-	0.00%
33	0.00%	4.46%	0.00%	0.00%	3.99%	-	-	-	0.00%	0.00%	-	0.00%
34	-	4.21%	0.00%	0.00%	3.70%	-	-	-	-	0.00%	-	0.00%
35	9.09%	3.77%	-	-	4.13%	0.00%	-	-	12.12%	-	-	-
36	5.56%	5.22%	0.00%	0.00%	4.77%	0.00%	-	-	4.35%	0.00%	0.00%	0.00%
37	100.00%	-	100.00%	-	-	-	-	2.18%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

1: Taylor Rd & King Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	203	146	274	164	300	264	456	111	46	502
v/c Ratio	0.65	0.47	0.57	0.45	0.77	0.78	0.69	0.18	0.70	0.75
Control Delay	43.7	38.0	9.3	34.4	41.9	53.7	31.9	5.9	95.2	39.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	38.0	9.3	34.4	41.9	53.7	31.9	5.9	95.2	39.1
Queue Length 50th (ft)	100	70	0	76	130	135	202	0	25	121
Queue Length 95th (ft)	187	139	58	147	238	#335	385	36	#102	210
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	603	594	678	597	609	339	767	685	66	844
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.25	0.40	0.27	0.49	0.78	0.59	0.16	0.70	0.59

Intersection Summary

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

2: Taylor Rd & Horseshoe Bar Rd

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	66	62	527	2	445	59	460	423
v/c Ratio	0.25	0.23	0.67	0.01	0.69	0.10	0.72	0.29
Control Delay	25.1	28.4	12.8	31.5	25.2	0.6	26.1	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	28.4	12.8	31.5	25.2	0.6	26.1	4.4
Queue Length 50th (ft)	20	23	85	1	157	0	157	40
Queue Length 95th (ft)	55	58	180	7	#284	3	#327	141
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	640	660	974	200	904	800	877	1474
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.09	0.54	0.01	0.49	0.07	0.52	0.29

Intersection Summary

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

3: Horseshoe Bar Rd & I-80 WB Ramp

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	99	133	55	86	182	631	20	241	398
v/c Ratio	0.70	0.21	0.30	0.43	0.64	0.48	0.15	0.60	0.64
Control Delay	59.0	5.9	39.8	35.3	42.9	19.5	41.4	34.7	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	5.9	39.8	35.3	42.9	19.5	41.4	34.7	9.7
Queue Length 50th (ft)	46	0	27	32	89	105	10	104	12
Queue Length 95th (ft)	#155	42	66	80	162	194	34	201	98
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	141	641	452	453	479	1710	162	560	729
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.21	0.12	0.19	0.38	0.37	0.12	0.43	0.55

Intersection Summary

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

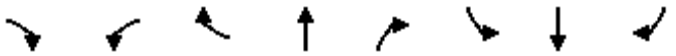
6: Sierra College Blvd & Taylor Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	115	214	117	266	199	22	171	470	228	30	1015	184
v/c Ratio	0.75	0.58	0.25	0.83	0.54	0.05	0.83	0.30	0.22	0.25	0.86	0.21
Control Delay	69.2	36.1	1.8	60.8	34.9	0.2	69.4	16.5	2.2	43.9	36.1	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.2	36.1	1.8	60.8	34.9	0.2	69.4	16.5	2.2	43.9	36.1	2.9
Queue Length 50th (ft)	59	101	0	71	93	0	88	67	0	15	255	0
Queue Length 95th (ft)	#159	168	6	#150	157	0	#215	144	34	44	#418	35
Internal Link Dist (ft)		429			1915			582			306	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	153	516	565	321	508	580	206	1586	1047	122	1177	875
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.41	0.21	0.83	0.39	0.04	0.83	0.30	0.22	0.25	0.86	0.21

Intersection Summary

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

7: Sierra College Blvd & Brace Rd

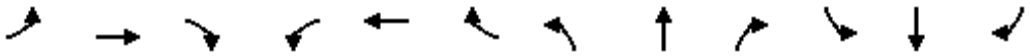


Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	111	134	103	782	104	150	1248	1
v/c Ratio	0.32	0.55	0.20	0.37	0.10	0.67	0.58	0.00
Control Delay	2.5	31.5	2.8	14.0	1.8	38.0	9.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.5	31.5	2.8	14.0	1.8	38.0	9.7	0.0
Queue Length 50th (ft)	0	38	0	69	0	42	130	0
Queue Length 95th (ft)	0	#97	17	101	15	#107	190	0
Internal Link Dist (ft)				218			582	
Turn Bay Length (ft)		100			200	170		
Base Capacity (vph)	344	250	582	2133	1034	264	2151	1029
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.54	0.18	0.37	0.10	0.57	0.58	0.00

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	114	24	251	155	43	29	276	848	118	93	1366	100
v/c Ratio	0.49	0.21	0.64	0.66	0.29	0.14	0.77	0.47	0.13	0.53	0.90	0.14
Control Delay	57.4	60.6	14.8	62.4	58.2	1.4	59.3	19.2	4.4	63.4	42.0	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	1.3	0.0
Total Delay	57.4	60.6	14.8	62.4	58.2	1.4	59.3	19.4	4.4	63.4	43.2	8.5
Queue Length 50th (ft)	81	17	0	110	30	0	194	194	3	66	483	8
Queue Length 95th (ft)	162	52	47	205	76	0	325	336	39	138	#878	51
Internal Link Dist (ft)		707			532			403			593	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	426	452	821	426	448	457	663	2189	1052	286	1516	722
Starvation Cap Reductn	0	0	0	0	0	0	8	596	0	0	47	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.05	0.31	0.36	0.10	0.06	0.42	0.53	0.11	0.33	0.93	0.14

Intersection Summary

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

9: Sierra College Blvd & I-80 WB Ramps

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	22	98	695	227	214	119	971	216	1813	69
v/c Ratio	0.27	0.38	0.85	0.64	0.57	0.91	0.30	0.21	0.71	0.07
Control Delay	63.8	18.8	53.5	36.6	23.4	105.5	5.8	0.6	22.6	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0
Total Delay	63.8	18.8	53.5	36.6	23.4	105.5	5.8	0.6	25.4	0.5
Queue Length 50th (ft)	17	14	265	111	57	94	54	0	365	0
Queue Length 95th (ft)	45	63	313	196	140	m#202	83	5	477	4
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	91	258	1419	559	557	133	3259	1023	2553	944
Starvation Cap Reductn	0	0	0	0	0	0	0	0	602	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.38	0.49	0.41	0.38	0.89	0.30	0.21	0.93	0.07

Intersection Summary

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

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

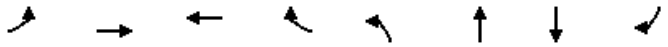
10: Sierra College Blvd & I-80 EB Ramps

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	483	120	233	53	128	1179	38	224	1444	410
v/c Ratio	0.69	0.26	0.76	0.46	0.49	0.37	0.04	0.65	0.59	0.35
Control Delay	48.1	47.9	39.0	67.3	17.8	13.6	0.1	50.1	8.0	1.0
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Total Delay	48.1	47.9	39.1	67.3	17.8	13.7	0.1	50.1	8.0	1.0
Queue Length 50th (ft)	181	45	82	41	11	90	0	86	150	0
Queue Length 95th (ft)	200	67	152	80	60	231	m0	105	303	11
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	750	1226	610	117	293	3194	917	421	2464	1156
Starvation Cap Reductn	0	0	0	0	0	800	0	0	0	0
Spillback Cap Reductn	0	0	50	0	0	0	0	0	131	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.10	0.42	0.45	0.44	0.49	0.04	0.53	0.62	0.35

Intersection Summary

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

11: Sierra College Blvd & Schriber Way



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	8	5	148	217	8	1155	1802	14
v/c Ratio	0.09	0.02	0.65	0.61	0.09	0.25	0.71	0.01
Control Delay	55.9	0.2	62.4	13.7	55.9	5.2	8.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	0.2	62.4	13.7	55.9	5.2	8.9	0.0
Queue Length 50th (ft)	6	0	111	0	6	50	81	0
Queue Length 95th (ft)	23	0	171	45	23	105	573	m0
Internal Link Dist (ft)		343	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	265	353	280	385	90	4601	2545	1196
Starvation Cap Reductn	0	0	0	0	0	0	18	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.01	0.53	0.56	0.09	0.25	0.71	0.01

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	3	1	48	1	10	1166	31	50	1928	4
v/c Ratio	0.05	0.00	0.26	0.01	0.05	0.33	0.03	0.40	0.66	0.00
Control Delay	45.5	0.0	46.7	42.0	0.5	7.4	0.0	49.8	5.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Total Delay	45.5	0.0	46.7	42.0	0.5	7.4	0.0	49.8	6.6	0.0
Queue Length 50th (ft)	2	0	13	1	0	91	0	27	163	0
Queue Length 95th (ft)	10	0	30	6	0	154	0	60	322	0
Internal Link Dist (ft)		226		372		97			363	
Turn Bay Length (ft)	130		265		150		45	220		200
Base Capacity (vph)	63	661	186	702	557	3816	1182	174	2958	1026
Starvation Cap Reductn	0	0	0	0	0	0	0	0	695	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.00	0.26	0.00	0.02	0.31	0.03	0.29	0.85	0.00

Intersection Summary

13: Sierra College Blvd & Stadium Dwy

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	29	11	96	1192	2243
v/c Ratio	0.09	0.07	0.53	0.39	0.63
Control Delay	28.1	16.6	40.9	2.1	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	16.6	40.9	2.1	7.6
Queue Length 50th (ft)	5	0	35	0	108
Queue Length 95th (ft)	14	11	68	76	205
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	1015	499	183	3033	3565
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.03	0.02	0.52	0.39	0.63

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	157	369	357	151	615	518	948	178	1006	296
v/c Ratio	0.74	0.35	0.60	1.53	0.75	1.93	0.89	0.91	0.56	0.40
Control Delay	61.2	25.9	15.7	311.2	34.5	460.6	41.8	87.4	25.2	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	25.9	15.7	311.2	34.5	460.6	41.8	87.4	25.2	4.5
Queue Length 50th (ft)	90	87	70	~126	153	~246	275	105	172	0
Queue Length 95th (ft)	#162	114	132	#228	191	#321	#340	#211	201	39
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	226	1212	659	99	948	268	1075	196	1819	742
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.30	0.54	1.53	0.65	1.93	0.88	0.91	0.55	0.40

Intersection Summary

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

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

15: Pacific St & Dominguez Rd/Delmar Ave

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	79	187	152	56	137	532	40	441	52
v/c Ratio	0.34	0.44	0.50	0.14	0.60	0.52	0.27	0.60	0.08
Control Delay	22.4	7.2	25.1	2.3	38.9	13.6	30.0	17.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.4	7.2	25.1	2.3	38.9	13.6	30.0	17.6	1.8
Queue Length 50th (ft)	22	0	44	0	43	80	12	108	0
Queue Length 95th (ft)	55	41	92	10	#130	#308	40	218	10
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	567	758	718	840	230	1033	146	845	729
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.25	0.21	0.07	0.60	0.52	0.27	0.52	0.07

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	32	213	385	399	156	50	556	651	327	709
v/c Ratio	0.25	0.59	0.85	0.86	0.29	0.43	0.61	0.91	0.86	0.48
Control Delay	56.7	39.3	60.3	61.3	8.8	66.6	41.6	33.1	68.5	26.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	39.3	60.3	61.3	8.8	66.6	41.6	33.1	68.5	26.1
Queue Length 50th (ft)	24	52	306	318	7	38	197	203	252	209
Queue Length 95th (ft)	57	93	#511	#532	61	82	266	#458	#437	281
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	363	851	455	464	532	134	1003	749	380	1474
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.25	0.85	0.86	0.29	0.37	0.55	0.87	0.86	0.48

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	180	1137	20	913	641	14	25	213	209	168
v/c Ratio	0.73	0.67	0.20	0.79	0.79	0.08	0.16	0.64	0.62	0.37
Control Delay	55.0	21.9	45.8	33.5	16.6	39.8	33.5	39.7	38.8	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	21.9	45.8	33.5	16.6	39.8	33.5	39.7	38.8	6.6
Queue Length 50th (ft)	94	215	11	235	77	7	9	111	108	0
Queue Length 95th (ft)	#199	391	34	#342	#242	26	34	177	174	39
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	259	1701	102	1163	810	169	157	596	602	667
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.67	0.20	0.79	0.79	0.08	0.16	0.36	0.35	0.25

Intersection Summary

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

18: I-80 WB Ramps & Rocklin Rd

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	1000	582	462	1369	52	247
v/c Ratio	0.75	0.62	0.85	0.53	0.20	0.78
Control Delay	30.7	5.6	30.9	10.0	32.2	38.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	5.6	30.9	10.0	32.2	38.7
Queue Length 50th (ft)	267	0	226	212	26	85
Queue Length 95th (ft)	#400	74	m280	m334	53	150
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1333	933	549	2607	443	466
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.62	0.84	0.53	0.12	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

19: I-80 EB Ramps & Rocklin Rd

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	226	814	1149	579	555	540
v/c Ratio	0.90	0.43	0.92	0.95	0.87	0.84
Control Delay	81.7	12.3	40.4	56.1	36.3	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.7	12.3	40.4	56.1	36.3	32.5
Queue Length 50th (ft)	141	66	323	331	246	221
Queue Length 95th (ft)	m#219	143	#458	#555	#468	#422
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	255	1903	1254	608	636	645
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.43	0.92	0.95	0.87	0.84

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	56	1784	13	1026	161	30
v/c Ratio	0.31	0.76	0.11	0.49	0.53	0.10
Control Delay	37.4	12.2	36.4	10.4	33.7	1.0
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	37.4	12.5	36.4	10.4	33.7	1.0
Queue Length 50th (ft)	20	199	5	138	57	0
Queue Length 95th (ft)	64	489	24	213	131	2
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	186	2594	124	2521	551	488
Starvation Cap Reductn	0	273	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.77	0.10	0.41	0.29	0.06

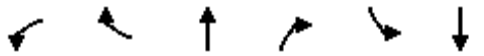
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	570	1048	14	838	175	37	44	41
v/c Ratio	0.89	0.46	0.14	0.88	0.60	0.12	0.45	0.20
Control Delay	49.4	12.1	50.6	47.3	47.7	19.5	42.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	12.1	50.6	47.3	47.7	19.5	42.1	2.1
Queue Length 50th (ft)	339	146	9	264	107	8	11	0
Queue Length 95th (ft)	#669	373	30	#468	173	35	#61	0
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	642	2323	103	953	535	526	97	210
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.45	0.14	0.88	0.33	0.07	0.45	0.20

Intersection Summary

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

24: Sierra College Blvd & Project Driveway



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	166	59	864	168	59	1461
v/c Ratio	0.32	0.20	0.31	0.13	0.29	0.61
Control Delay	20.5	8.0	8.2	0.8	24.3	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	8.0	8.2	0.8	24.3	6.4
Queue Length 50th (ft)	22	0	57	0	16	97
Queue Length 95th (ft)	43	24	91	10	45	179
Internal Link Dist (ft)	356		593			350
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1176	581	2789	1479	212	2391
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.10	0.31	0.11	0.28	0.61

Intersection Summary

1: Taylor Rd & King Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	71	137	471	173	173	402	471	207	54	506
v/c Ratio	0.29	0.53	0.75	0.65	0.62	0.81	0.56	0.26	0.46	0.75
Control Delay	38.0	43.4	12.1	48.4	42.7	45.9	23.5	3.9	57.0	40.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.0	43.4	12.1	48.4	42.7	45.9	23.5	3.9	57.0	40.9
Queue Length 50th (ft)	35	71	0	90	80	203	188	0	29	130
Queue Length 95th (ft)	80	138	87	174	162	#469	374	45	#86	224
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	562	597	822	568	573	498	881	818	124	817
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.23	0.57	0.30	0.30	0.81	0.53	0.25	0.44	0.62

Intersection Summary

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

2: Taylor Rd & Horseshoe Bar Rd

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	58	91	479	23	712	85	413	764
v/c Ratio	0.23	0.43	0.70	0.18	0.86	0.12	0.81	0.54
Control Delay	26.4	39.4	19.9	41.4	33.5	2.5	42.8	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	39.4	19.9	41.4	33.5	2.5	42.8	8.6
Queue Length 50th (ft)	19	44	140	11	320	0	199	115
Queue Length 95th (ft)	52	89	236	37	#590	18	#384	369
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	445	386	732	137	935	808	565	1420
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.24	0.65	0.17	0.76	0.11	0.73	0.54

Intersection Summary

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

3: Horseshoe Bar Rd & I-80 WB Ramp

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	115	81	112	101	112	606	49	203	354
v/c Ratio	0.77	0.13	0.50	0.38	0.52	0.59	0.33	0.48	0.56
Control Delay	64.2	2.6	41.5	19.9	42.2	23.9	42.6	30.5	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.2	2.6	41.5	19.9	42.2	23.9	42.6	30.5	7.0
Queue Length 50th (ft)	50	0	51	16	51	123	22	83	0
Queue Length 95th (ft)	#172	17	110	64	110	188	63	163	66
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	149	647	455	480	469	1662	175	570	733
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.13	0.25	0.21	0.24	0.36	0.28	0.36	0.48

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	212	317	204	548	340	49	181	1283	513	26	865	181
v/c Ratio	0.83	0.77	0.42	1.00	0.75	0.10	1.01	0.87	0.47	0.31	0.81	0.21
Control Delay	68.2	49.1	10.1	79.8	45.6	0.4	117.0	35.2	6.7	55.5	38.7	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	49.1	10.1	79.8	45.6	0.4	117.0	35.2	6.7	55.5	38.7	3.2
Queue Length 50th (ft)	133	187	14	~193	199	0	~126	360	60	16	266	3
Queue Length 95th (ft)	#250	#282	71	#292	296	0	#256	#580	161	44	337	36
Internal Link Dist (ft)		429			1915			582			355	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	267	452	520	550	484	524	179	1482	1087	85	1103	865
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.70	0.39	1.00	0.70	0.09	1.01	0.87	0.47	0.31	0.78	0.21

Intersection Summary

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

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

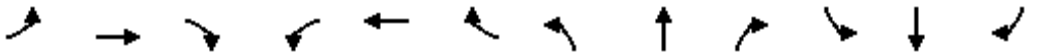
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	148	207	129	1706	196	120	1380
v/c Ratio	0.54	0.72	0.26	0.80	0.17	0.80	0.68
Control Delay	10.3	40.4	5.3	19.3	1.1	67.6	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	40.4	5.3	19.3	1.1	67.6	11.5
Queue Length 50th (ft)	0	72	0	195	0	44	172
Queue Length 95th (ft)	#29	#160	33	253	16	#124	241
Internal Link Dist (ft)				222			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	272	303	557	2122	1166	154	2028
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.68	0.23	0.80	0.17	0.78	0.68

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	210	28	391	114	26	35	381	1969	73	65	1864	134
v/c Ratio	0.68	0.15	0.62	0.60	0.25	0.20	0.83	0.93	0.08	0.46	1.35	0.20
Control Delay	64.5	58.5	10.0	71.2	70.0	2.7	62.4	35.8	5.7	71.8	195.2	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.5	45.5	0.0	0.0	0.1	0.0
Total Delay	64.5	58.5	10.0	71.2	70.0	2.7	62.9	81.3	5.7	71.8	195.3	14.5
Queue Length 50th (ft)	172	22	0	94	22	0	305	817	6	54	~1112	28
Queue Length 95th (ft)	282	57	53	175	59	0	470	#1250	33	114	#1520	89
Internal Link Dist (ft)		707			573			403			593	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	423	428	939	410	428	425	604	2132	955	276	1381	665
Starvation Cap Reductn	0	0	0	0	0	0	46	473	0	0	37	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.07	0.42	0.28	0.06	0.08	0.68	1.19	0.08	0.24	1.39	0.20

Intersection Summary

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

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

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	213	327	591	340	317	445	1744	417	2136	222
v/c Ratio	1.23	0.59	0.49	0.92	0.80	1.10	0.60	0.38	1.38	0.39
Control Delay	197.4	24.1	39.1	83.5	54.0	122.7	22.9	2.1	213.5	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Total Delay	197.4	24.1	39.1	83.5	54.0	122.7	22.9	2.1	214.1	26.6
Queue Length 50th (ft)	~256	116	229	324	225	~514	452	5	~1011	103
Queue Length 95th (ft)	#429	185	273	#466	340	m#753	m514	m22	#1101	182
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	173	554	1323	428	447	404	2891	1086	1549	563
Starvation Cap Reductn	0	0	0	0	0	0	0	0	216	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.23	0.59	0.45	0.79	0.71	1.10	0.60	0.38	1.60	0.39

Intersection Summary

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

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

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

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	766	291	159	209	488	1949	186	414	1302	654
v/c Ratio	0.89	0.78	0.62	1.00	1.43	0.65	0.22	0.72	0.55	0.51
Control Delay	66.8	79.5	34.9	127.0	244.2	30.9	6.9	75.2	16.8	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	47.9	0.9	0.0	0.0	0.0
Total Delay	66.8	79.5	34.9	127.0	244.2	78.8	7.8	75.2	16.8	5.2
Queue Length 50th (ft)	374	148	53	208	~595	397	22	212	476	141
Queue Length 95th (ft)	437	194	129	#382	#823	464	70	m218	m475	m179
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	895	1010	516	209	341	3005	846	578	2368	1292
Starvation Cap Reductn	0	0	0	0	0	1283	430	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.29	0.31	1.00	1.43	1.13	0.45	0.72	0.55	0.51

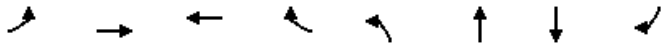
Intersection Summary

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

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

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

11: Sierra College Blvd & Schriber Way



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	105	55	82	170	52	2144	1511	98
v/c Ratio	0.53	0.13	0.46	0.58	0.34	0.52	0.79	0.11
Control Delay	50.8	0.7	50.2	18.0	48.6	10.2	24.8	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4	25.0	0.0
Total Delay	50.8	0.7	50.2	18.0	48.6	10.6	49.8	2.8
Queue Length 50th (ft)	64	0	50	12	32	184	402	0
Queue Length 95th (ft)	112	0	94	73	68	272	#683	23
Internal Link Dist (ft)		220	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	318	498	324	410	151	4130	1924	913
Starvation Cap Reductn	0	0	0	0	0	1244	475	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.11	0.25	0.41	0.34	0.74	1.04	0.11

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	5	1	116	76	2	2114	92	87	1562	1
v/c Ratio	0.04	0.00	0.36	0.23	0.02	0.69	0.09	0.66	0.61	0.00
Control Delay	36.0	0.0	35.8	1.7	35.5	12.8	1.8	60.8	8.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
Total Delay	36.0	0.0	35.8	1.7	35.5	12.8	1.8	60.8	9.3	0.0
Queue Length 50th (ft)	2	0	25	0	1	212	0	39	124	0
Queue Length 95th (ft)	13	0	56	0	8	383	17	#121	434	0
Internal Link Dist (ft)		226				97			363	
Turn Bay Length (ft)	130		265	150	75		45	220		200
Base Capacity (vph)	116	730	355	834	116	3061	996	131	2570	1167
Starvation Cap Reductn	0	0	0	0	0	0	0	0	600	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.00	0.33	0.09	0.02	0.69	0.09	0.66	0.79	0.00

Intersection Summary

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

13: Sierra College Blvd & Stadium Dwy

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	125	78	27	1920	1578
v/c Ratio	0.28	0.28	0.17	0.71	0.45
Control Delay	25.6	9.7	28.4	7.3	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	9.7	28.4	7.3	6.8
Queue Length 50th (ft)	21	0	9	179	67
Queue Length 95th (ft)	41	31	30	295	173
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	1107	563	160	2705	3538
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.11	0.14	0.17	0.71	0.45

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	415	443	442	75	607	437	1517	230	1090	309
v/c Ratio	1.12	0.44	0.65	0.65	1.14	0.76	1.10	1.10	0.62	0.45
Control Delay	132.1	41.4	15.4	87.5	125.4	63.0	94.5	145.4	39.1	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	132.1	41.4	15.4	87.5	125.4	63.0	94.5	145.4	39.1	9.9
Queue Length 50th (ft)	~418	168	78	65	~285	188	~792	~228	296	37
Queue Length 95th (ft)	#626	221	201	#134	#408	248	#934	#397	347	117
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	370	996	685	120	534	610	1381	209	1750	689
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.44	0.65	0.63	1.14	0.72	1.10	1.10	0.62	0.45

Intersection Summary

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

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

15: Pacific St & Dominguez Rd/Delmar Ave

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	107	199	149	51	167	847	45	593	40
v/c Ratio	0.43	0.42	0.60	0.13	0.63	0.80	0.32	0.75	0.06
Control Delay	33.1	7.2	38.6	0.7	43.7	21.6	42.9	25.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.1	7.2	38.6	0.7	43.7	21.6	42.9	25.4	0.2
Queue Length 50th (ft)	47	0	68	0	78	310	22	220	0
Queue Length 95th (ft)	94	50	127	0	#175	#654	57	399	0
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	456	709	462	636	301	1161	142	974	775
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.28	0.32	0.08	0.55	0.73	0.32	0.61	0.05

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	45	173	510	524	404	46	873	789	218	826
v/c Ratio	0.30	0.56	0.99	1.01	0.60	0.43	0.69	1.02	1.08	0.55
Control Delay	62.0	62.3	84.5	88.1	16.1	73.5	40.4	62.0	140.8	31.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	62.3	84.5	88.1	16.1	73.5	40.4	62.0	140.8	31.4
Queue Length 50th (ft)	37	72	464	~486	86	39	338	~528	~210	288
Queue Length 95th (ft)	78	112	#738	#763	204	83	431	#802	#387	372
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	363	721	514	519	676	121	1258	775	202	1496
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.24	0.99	1.01	0.60	0.38	0.69	1.02	1.08	0.55

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	279	999	38	1217	545	51	31	288	285	301
v/c Ratio	0.96	0.58	0.35	0.99	0.79	0.41	0.23	0.72	0.71	0.50
Control Delay	88.3	22.7	57.3	59.5	24.4	58.6	39.5	46.8	46.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.3	22.7	57.3	59.5	24.4	58.6	39.5	46.8	46.0	6.9
Queue Length 50th (ft)	185	264	24	~421	159	33	13	183	180	3
Queue Length 95th (ft)	#378	373	61	#637	#379	76	45	278	275	66
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	291	1731	114	1224	691	123	133	526	530	700
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.58	0.33	0.99	0.79	0.41	0.23	0.55	0.54	0.43

Intersection Summary

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

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

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	1029	557	607	1541	48	344
v/c Ratio	1.01	0.70	0.97	0.64	0.13	0.91
Control Delay	66.3	10.0	63.4	10.2	31.7	62.5
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay	66.3	10.0	63.4	10.6	31.7	62.5
Queue Length 50th (ft)	~348	29	~400	266	24	182
Queue Length 95th (ft)	#491	143	#624	332	54	#338
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1022	798	625	2414	415	403
Starvation Cap Reductn	0	0	0	367	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.70	0.97	0.75	0.12	0.85

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	238	875	1672	447	435	409
v/c Ratio	0.96	0.38	0.98	0.99	0.97	0.75
Control Delay	98.4	10.2	48.1	84.7	75.8	31.3
Queue Delay	0.0	0.0	41.1	0.0	0.0	0.0
Total Delay	98.4	10.2	89.2	84.7	75.8	31.3
Queue Length 50th (ft)	186	151	647	364	337	174
Queue Length 95th (ft)	#346	188	#832	#590	#572	308
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	249	2329	1708	450	447	545
Starvation Cap Reductn	0	0	372	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.38	1.25	0.99	0.97	0.75

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	57	1508	24	1596	95	23
v/c Ratio	0.31	0.60	0.14	0.66	0.37	0.08
Control Delay	34.7	9.0	32.3	11.2	30.8	0.5
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	34.7	9.3	32.3	11.2	30.8	0.5
Queue Length 50th (ft)	23	120	10	239	37	0
Queue Length 95th (ft)	58	330	32	371	78	0
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	186	2496	170	2418	627	608
Starvation Cap Reductn	0	369	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.71	0.14	0.66	0.15	0.04

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	195	1168	24	1058	133	32	237	227
v/c Ratio	0.79	0.68	0.21	0.87	0.44	0.11	0.96	0.58
Control Delay	58.1	20.5	43.1	34.9	33.2	11.3	75.7	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	20.5	43.1	34.9	33.2	11.3	75.7	12.2
Queue Length 50th (ft)	90	176	11	236	59	1	81	0
Queue Length 95th (ft)	#252	#499	41	#499	106	22	#284	73
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	248	1727	113	1216	678	634	246	390
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.68	0.21	0.87	0.20	0.05	0.96	0.58

Intersection Summary

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

24: Sierra College Blvd & Project Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	437	175	1822	421	154	1677
v/c Ratio	0.55	0.35	0.84	0.35	0.71	0.76
Control Delay	23.4	5.7	21.3	2.3	48.2	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	5.7	21.3	2.3	48.2	12.0
Queue Length 50th (ft)	73	0	214	20	56	206
Queue Length 95th (ft)	111	40	#339	41	#147	338
Internal Link Dist (ft)	464		593			346
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1011	589	2168	1297	217	2201
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.30	0.84	0.32	0.71	0.76

Intersection Summary

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

1: Taylor Rd & King Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	68	60	356	253	115	346	416	206	27	492
v/c Ratio	0.33	0.29	0.71	0.69	0.31	0.90	0.52	0.27	0.36	0.70
Control Delay	36.3	35.4	12.8	38.1	25.6	60.1	21.2	4.1	53.8	33.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.3	35.4	12.8	38.1	25.6	60.1	21.2	4.1	53.8	33.5
Queue Length 50th (ft)	28	25	0	102	37	147	138	0	12	102
Queue Length 95th (ft)	66	60	46	185	83	#360	263	32	#45	169
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	656	654	817	701	689	384	875	809	75	1001
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.09	0.44	0.36	0.17	0.90	0.48	0.25	0.36	0.49

Intersection Summary

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

2: Taylor Rd & Horseshoe Bar Rd

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	36	116	295	17	688	98	356	811
v/c Ratio	0.15	0.49	0.44	0.12	0.84	0.14	0.77	0.58
Control Delay	22.5	35.6	10.4	35.1	31.3	2.6	38.8	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	35.6	10.4	35.1	31.3	2.6	38.8	9.4
Queue Length 50th (ft)	11	49	52	7	272	0	147	131
Queue Length 95th (ft)	33	94	99	26	#507	18	#289	416
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	494	422	732	158	916	796	536	1390
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.27	0.40	0.11	0.75	0.12	0.66	0.58

Intersection Summary

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

3: Horseshoe Bar Rd & I-80 WB Ramp

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	112	65	72	106	154	458	34	151	353
v/c Ratio	0.67	0.10	0.37	0.47	0.58	0.38	0.24	0.42	0.59
Control Delay	49.0	1.2	38.4	30.6	39.6	18.4	40.1	30.8	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	1.2	38.4	30.6	39.6	18.4	40.1	30.8	7.9
Queue Length 50th (ft)	37	0	28	27	60	66	13	58	0
Queue Length 95th (ft)	#163	6	78	85	138	131	48	124	64
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	167	647	471	493	509	1793	166	595	758
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.10	0.15	0.22	0.30	0.26	0.20	0.25	0.47

Intersection Summary

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

6: Sierra College Blvd & Taylor Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	148	229	188	589	204	26	191	859	553	31	852	131
v/c Ratio	0.69	0.57	0.42	1.04	0.43	0.05	1.16	0.63	0.49	0.29	0.84	0.16
Control Delay	53.7	35.4	11.2	85.0	29.5	0.2	158.7	25.0	4.9	46.8	37.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	35.4	11.2	85.0	29.5	0.2	158.7	25.0	4.9	46.8	37.7	3.3
Queue Length 50th (ft)	75	109	18	~175	91	0	~121	171	28	16	220	0
Queue Length 95th (ft)	#167	177	71	#303	153	0	#269	311	128	46	#354	30
Internal Link Dist (ft)		429			1915			582			326	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	232	539	553	567	592	601	164	1373	1135	107	1023	829
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.42	0.34	1.04	0.34	0.04	1.16	0.63	0.49	0.29	0.83	0.16

Intersection Summary

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

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

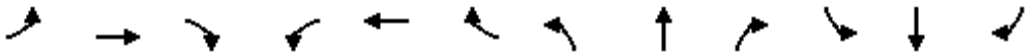
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	224	75	1483	190	105	1491
v/c Ratio	0.24	0.76	0.17	0.66	0.15	0.78	0.74
Control Delay	1.9	42.5	2.2	14.4	1.1	66.7	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.9	42.5	2.2	14.4	1.1	66.7	12.0
Queue Length 50th (ft)	0	72	0	146	0	35	183
Queue Length 95th (ft)	0	#171	10	195	15	#109	263
Internal Link Dist (ft)				222			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	297	295	537	2250	1199	135	2012
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.76	0.14	0.66	0.16	0.78	0.74

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	166	24	310	123	25	24	314	1748	102	67	1864	149
v/c Ratio	0.59	0.16	0.60	0.59	0.23	0.13	0.79	0.84	0.11	0.44	1.24	0.21
Control Delay	58.6	57.1	11.2	63.8	63.5	1.5	59.4	27.5	7.5	64.7	146.0	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1	9.7	0.0	0.0	0.1	0.0
Total Delay	58.6	57.1	11.2	63.8	63.5	1.5	59.5	37.2	7.5	64.7	146.1	13.4
Queue Length 50th (ft)	121	17	0	90	19	0	227	575	15	49	~934	30
Queue Length 95th (ft)	221	52	50	175	54	0	366	#968	51	111	#1394	96
Internal Link Dist (ft)		707			491			403			592	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	442	465	940	446	447	477	663	2253	1016	297	1502	716
Starvation Cap Reductn	0	0	0	0	0	0	20	495	0	0	40	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.05	0.33	0.28	0.06	0.05	0.49	0.99	0.10	0.23	1.27	0.21

Intersection Summary

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

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

9: Sierra College Blvd & I-80 WB Ramps

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	255	573	628	376	342	594	1420	435	2045	272
v/c Ratio	1.43	0.98	0.50	0.94	0.84	1.38	0.50	0.41	1.46	0.52
Control Delay	268.3	64.0	36.6	81.2	56.2	226.3	18.3	1.7	247.0	33.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4
Total Delay	268.3	64.0	36.6	81.2	56.2	226.3	18.3	1.7	247.3	33.6
Queue Length 50th (ft)	~327	~371	231	342	242	~782	280	4	~970	147
Queue Length 95th (ft)	#509	#636	280	#507	369	m#1011	m311	m18	#1063	241
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	178	583	1373	453	451	431	2826	1064	1404	522
Starvation Cap Reductn	0	0	0	0	0	0	0	0	124	52
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.43	0.98	0.46	0.83	0.76	1.38	0.50	0.41	1.60	0.58

Intersection Summary

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

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

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

10: Sierra College Blvd & I-80 EB Ramps

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	753	373	165	245	556	1444	238	631	1218	580
v/c Ratio	0.72	0.81	0.56	0.97	1.40	0.60	0.31	0.91	0.56	0.49
Control Delay	49.6	75.3	29.7	110.2	231.2	36.9	5.6	80.8	27.8	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	6.2	0.7	0.0	0.0	0.0
Total Delay	49.6	75.3	29.7	110.2	231.2	43.1	6.3	80.8	27.8	9.1
Queue Length 50th (ft)	329	184	52	235	~650	311	7	289	430	119
Queue Length 95th (ft)	381	233	126	#409	#886	372	66	m280	m412	m105
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	1039	1018	521	257	396	2396	770	691	2184	1186
Starvation Cap Reductn	0	0	0	0	0	895	277	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.37	0.32	0.95	1.40	0.96	0.48	0.91	0.56	0.49

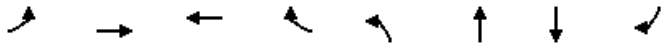
Intersection Summary

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

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

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

11: Sierra College Blvd & Schriber Way



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	142	79	94	185	84	1670	1405	155
v/c Ratio	0.58	0.16	0.57	0.55	0.47	0.46	0.94	0.21
Control Delay	45.3	0.7	49.1	15.2	49.0	12.3	40.5	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	44.6	0.0
Total Delay	45.3	0.7	49.1	15.2	49.0	12.3	85.1	6.6
Queue Length 50th (ft)	77	0	51	16	45	143	406	10
Queue Length 95th (ft)	128	0	95	72	#124	226	#633	52
Internal Link Dist (ft)		235	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	354	558	240	424	179	3640	1498	743
Starvation Cap Reductn	0	0	0	0	0	0	232	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.14	0.39	0.44	0.47	0.46	1.11	0.21

Intersection Summary

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

12: Sierra College Blvd & Bass Pro Dr/Dominguez Rd

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	3	3	118	1	105	1	1625	130	126	1427	5
v/c Ratio	0.02	0.01	0.32	0.00	0.36	0.01	0.59	0.14	0.62	0.55	0.00
Control Delay	30.3	0.0	29.9	27.0	8.3	30.0	12.6	3.3	44.2	8.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay	30.3	0.0	29.9	27.0	8.3	30.0	12.6	3.3	44.2	8.8	0.0
Queue Length 50th (ft)	1	0	21	0	0	0	146	2	46	102	0
Queue Length 95th (ft)	9	0	50	5	31	5	267	30	#137	375	0
Internal Link Dist (ft)		226		372			97			363	
Turn Bay Length (ft)	130		265		150	75		45	220		200
Base Capacity (vph)	141	897	390	1041	943	141	2742	917	202	2572	1181
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	419	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.00	0.30	0.00	0.11	0.01	0.59	0.14	0.62	0.66	0.00

Intersection Summary

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

13: Sierra College Blvd & Stadium Dwy

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	40	22	16	1811	1631
v/c Ratio	0.10	0.11	0.10	0.63	0.42
Control Delay	21.6	11.2	23.4	5.3	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	11.2	23.4	5.3	4.9
Queue Length 50th (ft)	7	0	6	141	63
Queue Length 95th (ft)	15	15	18	227	170
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	1173	571	168	2897	3914
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.03	0.04	0.10	0.63	0.42

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	325	313	351	99	514	367	1342	204	1064	265
v/c Ratio	0.95	0.31	0.53	0.97	0.82	0.70	1.08	1.00	0.66	0.40
Control Delay	81.5	29.8	9.2	132.6	40.7	49.3	81.5	110.5	33.6	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.5	29.8	9.2	132.6	40.7	49.3	81.5	110.5	33.6	5.4
Queue Length 50th (ft)	219	85	27	68	122	121	~534	~141	229	0
Queue Length 95th (ft)	#394	123	106	#176	#184	171	#673	#290	279	58
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	341	1056	674	102	664	551	1248	204	1604	660
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.30	0.52	0.97	0.77	0.67	1.08	1.00	0.66	0.40

Intersection Summary

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

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

15: Pacific St & Dominguez Rd/Delmar Ave

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	89	107	62	46	118	539	44	575	89
v/c Ratio	0.39	0.30	0.30	0.13	0.61	0.48	0.28	0.63	0.11
Control Delay	24.8	7.4	22.9	1.7	40.6	10.6	28.1	15.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	7.4	22.9	1.7	40.6	10.6	28.1	15.7	3.3
Queue Length 50th (ft)	25	0	17	0	36	68	13	132	0
Queue Length 95th (ft)	59	32	45	6	#107	236	40	#260	21
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	658	819	605	836	193	1130	157	919	808
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.13	0.10	0.06	0.61	0.48	0.28	0.63	0.11

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	53	138	374	378	247	15	683	605	212	636
v/c Ratio	0.30	0.38	0.75	0.75	0.39	0.18	0.66	0.81	1.31	0.43
Control Delay	42.5	36.3	38.5	38.9	5.3	47.4	30.5	19.9	211.5	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	36.3	38.5	38.9	5.3	47.4	30.5	19.9	211.5	19.9
Queue Length 50th (ft)	29	34	197	201	0	9	176	107	~163	126
Queue Length 95th (ft)	65	63	#320	#326	53	30	245	#312	#309	209
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	591	1165	556	557	683	84	1128	776	162	1468
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.12	0.67	0.68	0.36	0.18	0.61	0.78	1.31	0.43

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	297	795	23	769	536	46	39	254	251	290
v/c Ratio	1.00	0.47	0.21	0.73	0.70	0.32	0.25	0.64	0.63	0.49
Control Delay	92.0	19.2	46.8	33.5	10.8	47.3	27.9	38.0	37.5	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.0	19.2	46.8	33.5	10.8	47.3	27.9	38.0	37.5	6.4
Queue Length 50th (ft)	~173	137	13	200	32	25	9	135	133	0
Queue Length 95th (ft)	#381	275	40	306	160	64	42	214	211	58
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	298	1676	112	1111	785	145	156	625	628	757
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.47	0.21	0.69	0.68	0.32	0.25	0.41	0.40	0.38

Intersection Summary

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

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

18: I-80 WB Ramps & Rocklin Rd

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	856	503	538	1163	35	204
v/c Ratio	0.70	0.58	0.84	0.42	0.16	0.73
Control Delay	31.3	5.7	39.1	4.5	34.5	34.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	5.7	39.1	4.5	34.5	34.3
Queue Length 50th (ft)	221	0	269	88	18	58
Queue Length 95th (ft)	#364	80	#445	171	42	122
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1225	868	644	2743	443	478
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.58	0.84	0.42	0.08	0.43

Intersection Summary

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

19: I-80 EB Ramps & Rocklin Rd

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	184	756	1270	403	390	366
v/c Ratio	0.81	0.36	0.88	0.89	0.85	0.67
Control Delay	56.6	7.5	27.0	47.2	38.0	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.6	7.5	27.0	47.2	38.0	16.6
Queue Length 50th (ft)	72	72	235	160	132	57
Queue Length 95th (ft)	#168	102	#367	#316	#293	149
Internal Link Dist (ft)		595	411		642	
Turn Bay Length (ft)	170			455		455
Base Capacity (vph)	233	2119	1438	458	464	548
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.36	0.88	0.88	0.84	0.67

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	64	1182	17	1143	99	22
v/c Ratio	0.28	0.49	0.08	0.54	0.33	0.06
Control Delay	25.5	7.3	23.1	10.5	22.5	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	7.3	23.1	10.5	22.5	0.3
Queue Length 50th (ft)	18	74	5	133	28	0
Queue Length 95th (ft)	50	222	20	217	62	0
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	230	2403	211	2135	806	777
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.49	0.08	0.54	0.12	0.03

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	35	1088	27	1044	115	25	57	54
v/c Ratio	0.21	0.56	0.16	0.54	0.32	0.08	0.35	0.17
Control Delay	35.1	16.9	34.5	16.6	23.8	9.6	24.6	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	16.9	34.5	16.6	23.8	9.6	24.6	1.2
Queue Length 50th (ft)	11	121	8	115	34	0	7	0
Queue Length 95th (ft)	48	#423	40	#396	80	17	#56	0
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	167	1972	167	1989	1004	858	165	317
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.55	0.16	0.52	0.11	0.03	0.35	0.17

Intersection Summary

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

24: Sierra College Blvd & Project Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	542	249	1500	574	240	1624
v/c Ratio	0.62	0.42	0.82	0.50	0.78	0.76
Control Delay	24.3	5.5	24.2	4.9	44.9	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	5.5	24.2	4.9	44.9	12.6
Queue Length 50th (ft)	94	0	198	52	91	227
Queue Length 95th (ft)	139	47	#270	104	#195	317
Internal Link Dist (ft)	372		592			347
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	982	630	1820	1184	323	2137
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.40	0.82	0.48	0.74	0.76

Intersection Summary

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

Project Driveway Option B

Existing plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-

Cumulative Short-Term plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-

Cumulative Long-Term plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	160	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-

Cumulative-Short TermP AM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	108	18	#117	195	-	-	-	16	**#146**	-	30
8	Sierra College Boulevard & Granite Drive	**#347**	183	-	120	**569**	28	#152	46	42	**#244**	68	-
21	Sierra College Boulevard & Driveway South of Brace Road	2	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	-	87	10	45	164	-	-	-	-	41	-	24
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Short TermP PM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	276	21	**#172**	265	-	-	-	59	**#322**	-	41
8	Sierra College Boulevard & Granite Drive	**#578**	**481**	-	100	**#1036**	51	**#358**	55	52	**#236**	53	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	5	-	-	-
24	Sierra College Boulevard & Project Driveway	-	307	38	#158	332	-	-	-	-	113	-	43
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Short TermP SAT

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	183	16	#130	239	-	-	-	-	**#265**	-	19
8	Sierra College Boulevard & Granite Drive	**#460**	**397**	-	101	**#960**	55	**#265**	54	48	**#303**	54	-
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	-	#310	85	#176	311	-	-	-	-	135	-	51
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Short TermP AM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	2.85%	2.00%	0.00%	1.79%	0.00%	-	-	0.00%	1.56%	-	0.00%
8	0.00%	13.31%	8.13%	0.00%	8.15%	2.11%	1.85%	4.17%	0.00%	6.29%	2.38%	0.00%
21	0.00%	2.75%	-	-	1.64%	0.00%	-	-	-	-	-	-
24	-	0.00%	100.00%	100.00%	0.00%	-	-	-	-	100.00%	-	100.00%
25	-	-	-	-	-	-	-	0.83%	-	-	0.90%	-

Notes:

Shading indicates Project impact.

Cumulative Short TermP PM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	3.96%	1.57%	6.09%	4.23%	-	-	-	0.00%	2.93%	-	0.00%
8	0.00%	14.05%	29.59%	0.00%	15.74%	5.65%	3.59%	7.14%	0.00%	21.90%	7.69%	0.00%
21	0.00%	3.71%	-	-	3.71%	0.00%	-	-	0.00%	-	-	-
24	-	0.00%	100.00%	100.00%	0.00%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	1.00%	100.00%	-	1.84%	-

Notes:

Shading indicates Project impact.

Cumulative Short TermP SAT

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	8.60%	3.19%	14.85%	7.97%	-	-	-	0.00%	5.29%	-	0.00%
8	0.00%	20.69%	37.58%	0.00%	18.58%	9.35%	9.03%	14.81%	0.00%	32.18%	14.29%	0.00%
21	0.00%	7.97%	-	-	7.30%	-	-	-	-	-	-	-
24	-	-8.41%	100.00%	100.00%	-7.16%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	2.18%	100.00%	-	4.10%	-

Notes:

Shading indicates Project impact.

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	111	136	101	784	106	150	1248	1
v/c Ratio	0.36	0.83	0.23	0.38	0.10	0.65	0.60	0.00
Control Delay	5.1	71.3	6.1	13.7	2.1	38.3	9.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.1	71.3	6.1	13.7	2.1	38.3	9.3	0.0
Queue Length 50th (ft)	0	48	0	73	0	49	130	0
Queue Length 95th (ft)	16	#146	30	108	18	#117	195	0
Internal Link Dist (ft)				226			582	
Turn Bay Length (ft)		100			200	170		
Base Capacity (vph)	528	163	731	2170	1038	288	2315	1086
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.83	0.14	0.36	0.10	0.52	0.54	0.00

Intersection Summary

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	113	25	251	166	44	29	276	966	93	1355	99
v/c Ratio	0.52	0.21	0.63	0.82	0.33	0.13	0.83	0.36	0.56	0.84	0.13
Control Delay	57.1	53.7	13.7	78.5	55.7	1.2	65.6	14.4	61.5	32.7	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay	57.1	53.7	13.7	78.5	55.7	1.2	65.6	14.4	61.5	33.1	3.5
Queue Length 50th (ft)	79	17	0	118	31	0	193	130	65	436	0
Queue Length 95th (ft)	#152	46	42	#244	68	0	#347	183	120	569	28
Internal Link Dist (ft)		707			424			403		608	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	220	464	836	203	476	498	332	2674	213	1617	778
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	49	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.05	0.30	0.82	0.09	0.06	0.83	0.36	0.44	0.86	0.13

Intersection Summary

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

24: Sierra College Blvd & Project Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	154	63	864	157	61	1461
v/c Ratio	0.31	0.22	0.31	0.12	0.29	0.61
Control Delay	20.5	8.2	8.0	0.8	24.1	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	8.2	8.0	0.8	24.1	6.2
Queue Length 50th (ft)	20	0	56	0	16	95
Queue Length 95th (ft)	41	24	87	10	45	164
Internal Link Dist (ft)	356		608			327
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1185	587	2806	1486	213	2408
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.11	0.31	0.11	0.29	0.61

Intersection Summary

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	148	214	126	1709	199	120	1380
v/c Ratio	0.55	1.95	0.32	0.62	0.17	0.90	0.58
Control Delay	16.7	479.0	7.7	13.9	1.2	95.8	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	479.0	7.7	13.9	1.2	95.8	8.6
Queue Length 50th (ft)	7	~170	0	191	0	61	158
Queue Length 95th (ft)	59	#322	41	276	21	#172	265
Internal Link Dist (ft)				226			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	409	110	564	2901	1155	134	2462
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	1.95	0.22	0.59	0.17	0.90	0.56

Intersection Summary

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

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	207	30	391	146	28	35	381	2042	65	1832	132
v/c Ratio	0.94	0.25	0.71	0.79	0.23	0.18	1.14	0.64	0.48	1.05	0.16
Control Delay	101.8	59.2	13.1	83.1	58.8	1.9	137.3	16.4	66.2	65.7	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	22.4	0.0
Total Delay	101.8	59.2	13.1	83.1	58.8	1.9	137.3	18.5	66.2	88.1	6.2
Queue Length 50th (ft)	~183	23	0	114	22	0	~350	358	50	~822	13
Queue Length 95th (ft)	#358	55	52	#236	53	0	#578	481	100	#1036	51
Internal Link Dist (ft)		707			559			403		618	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	220	444	961	184	444	450	334	3177	171	1752	830
Starvation Cap Reductn	0	0	0	0	0	0	0	940	0	158	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.07	0.41	0.79	0.06	0.08	1.14	0.91	0.38	1.15	0.16

Intersection Summary

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

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

24: Sierra College Blvd & Project Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	402	182	1822	387	161	1677
v/c Ratio	0.56	0.38	0.78	0.32	0.72	0.72
Control Delay	26.4	6.4	18.6	2.1	49.1	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	6.4	18.6	2.1	49.1	10.4
Queue Length 50th (ft)	74	0	214	18	63	194
Queue Length 95th (ft)	113	43	307	38	#158	332
Internal Link Dist (ft)	464		618			317
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	940	565	2335	1307	228	2316
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.32	0.78	0.30	0.71	0.72

Intersection Summary

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

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	236	69	1490	196	105	1491
v/c Ratio	0.24	1.52	0.20	0.57	0.17	0.88	0.64
Control Delay	1.9	294.2	4.6	11.4	1.1	91.1	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.9	294.2	4.6	11.4	1.1	91.1	8.5
Queue Length 50th (ft)	0	~141	0	142	0	43	174
Queue Length 95th (ft)	0	#265	19	183	16	#130	239
Internal Link Dist (ft)				226			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	533	155	668	2816	1174	120	2466
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	1.52	0.10	0.53	0.17	0.88	0.60

Intersection Summary

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

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	161	28	310	181	29	24	314	1850	67	1805	145
v/c Ratio	0.76	0.24	0.66	0.98	0.26	0.12	1.01	0.58	0.49	0.99	0.17
Control Delay	76.3	59.5	13.3	115.9	60.5	1.2	104.2	15.0	65.9	50.1	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	27.0	0.0
Total Delay	76.3	59.5	13.3	115.9	60.5	1.2	104.2	16.2	65.9	77.0	6.5
Queue Length 50th (ft)	127	22	0	145	22	0	~253	305	51	719	18
Queue Length 95th (ft)	#265	54	48	#303	54	0	#460	397	101	#960	55
Internal Link Dist (ft)		707			531			403		668	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	212	446	915	185	429	473	311	3168	173	1815	857
Starvation Cap Reductn	0	0	0	0	0	0	0	992	0	134	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.06	0.34	0.98	0.07	0.05	1.01	0.85	0.39	1.07	0.17

Intersection Summary

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

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

24: Sierra College Blvd & Project Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	477	262	1500	505	253	1624
v/c Ratio	0.61	0.46	0.79	0.44	0.72	0.72
Control Delay	26.8	6.2	24.4	4.1	38.0	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	6.2	24.4	4.1	38.0	11.1
Queue Length 50th (ft)	91	0	215	39	99	222
Queue Length 95th (ft)	135	51	#310	85	#176	311
Internal Link Dist (ft)	372		668			267
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	916	614	1891	1189	406	2256
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.43	0.79	0.42	0.62	0.72

Intersection Summary

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

Project Driveway Option C

Existing plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

Cumulative Short-Term plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	900	40	-	150	-	-	1,900	600	465	2,500	-
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

Cumulative Long-Term Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	160	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

Cumulative-Short TermP AM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	101	15	#107	190	-	-	-	-	#97	-	17
8	Sierra College Boulevard & Granite Drive	**#347**	183	-	120	**569**	28	#152	46	42	**#244**	68	-
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	-	87	10	44	164	-	-	-	-	41	-	24
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
37	Project Driveway East & Brace Road	-	0	-	-	-	-	-	-	-	0	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Short TermP PM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	253	16	#124	241	-	-	-	#29	**#160**	-	33
8	Sierra College Boulevard & Granite Drive	**#578**	**481**	-	100	**#1036**	51	**#358**	55	52	**#236**	53	-
21	Sierra College Boulevard & Driveway South of Brace Road	-	-	-	-	-	-	-	-	5	-	-	-
24	Sierra College Boulevard & Project Driveway	-	#339	36	#147	338	-	-	-	-	102	-	40
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
37	Project Driveway East & Brace Road	-	3	-	-	-	-	-	-	-	0	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Short TermP SAT

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	195	15	#109	263	-	-	-	-	#171	-	10
8	Sierra College Boulevard & Granite Drive	**#460**	**397**	-	101	**#960**	55	**#265**	54	48	**#303**	54	-
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	-	#270	80	#195	317	-	-	-	-	122	-	47
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
37	Project Driveway East & Brace Road	-	3	-	-	-	-	-	-	-	0	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Short TermP AM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	2.59%	0.00%	0.00%	1.79%	0.00%	-	-	0.00%	0.00%	-	2.06%
8	0.00%	13.31%	8.13%	0.00%	8.15%	2.11%	1.85%	4.17%	0.00%	6.29%	2.38%	0.00%
21	0.00%	2.28%	-	-	1.50%	0.00%	-	-	-	-	-	-
24	-	-4.40%	100.00%	100.00%	-2.46%	-	-	-	-	100.00%	-	100.00%
25	-	-	-	-	-	-	-	0.00%	-	-	0.90%	-
37	100.00%	-	100.00%	-	-	-	-	0.00%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

Cumulative Short TermP PM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	3.79%	0.00%	6.09%	4.23%	-	-	-	0.00%	0.00%	-	2.42%
8	0.00%	14.05%	29.59%	0.00%	15.74%	5.65%	3.59%	7.14%	0.00%	21.90%	7.69%	0.00%
21	0.00%	3.40%	-	-	3.36%	0.00%	-	-	0.00%	-	-	-
24	-	-5.55%	100.00%	100.00%	-5.57%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	0.93%	-
37	100.00%	-	100.00%	-	-	-	-	1.00%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

Cumulative Short TermP SAT

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	8.22%	0.00%	14.85%	7.97%	-	-	-	0.00%	0.00%	-	8.33%
8	0.00%	20.69%	37.58%	0.00%	18.58%	9.35%	9.03%	14.81%	0.00%	32.18%	14.29%	0.00%
21	0.00%	7.29%	-	-	6.65%	-	-	-	-	-	-	-
24	-	-8.41%	100.00%	100.00%	-7.16%	-	-	-	-	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	2.09%	-
37	100.00%	-	100.00%	-	-	-	-	2.18%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	111	134	103	782	104	150	1248	1
v/c Ratio	0.32	0.55	0.20	0.37	0.10	0.67	0.58	0.00
Control Delay	2.5	31.5	2.8	14.0	1.8	38.0	9.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.5	31.5	2.8	14.0	1.8	38.0	9.7	0.0
Queue Length 50th (ft)	0	38	0	69	0	42	130	0
Queue Length 95th (ft)	0	#97	17	101	15	#107	190	0
Internal Link Dist (ft)				218			582	
Turn Bay Length (ft)		100			200	170		
Base Capacity (vph)	344	250	582	2133	1034	264	2151	1029
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.54	0.18	0.37	0.10	0.57	0.58	0.00

Intersection Summary

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	113	25	251	166	44	29	276	966	93	1355	99
v/c Ratio	0.52	0.21	0.63	0.82	0.33	0.13	0.83	0.36	0.56	0.84	0.13
Control Delay	57.1	53.7	13.7	78.5	55.7	1.2	65.6	14.4	61.5	32.7	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
Total Delay	57.1	53.7	13.7	78.5	55.7	1.2	65.6	14.4	61.5	33.6	3.5
Queue Length 50th (ft)	79	17	0	118	31	0	193	130	65	436	0
Queue Length 95th (ft)	#152	46	42	#244	68	0	#347	183	120	569	28
Internal Link Dist (ft)		707			445			403		593	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	220	464	836	203	476	498	332	2670	213	1617	778
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	87	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.05	0.30	0.82	0.09	0.06	0.83	0.36	0.44	0.89	0.13

Intersection Summary

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

24: Sierra College Blvd & Project Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	154	59	864	157	59	1461
v/c Ratio	0.31	0.21	0.31	0.12	0.28	0.61
Control Delay	20.5	8.3	8.0	0.8	23.9	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	8.3	8.0	0.8	23.9	6.2
Queue Length 50th (ft)	20	0	56	0	16	95
Queue Length 95th (ft)	41	24	87	10	44	164
Internal Link Dist (ft)	356		593			350
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1185	585	2806	1486	213	2408
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.10	0.31	0.11	0.28	0.61

Intersection Summary

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	148	207	129	1706	196	120	1380
v/c Ratio	0.54	0.72	0.26	0.80	0.17	0.80	0.68
Control Delay	10.3	40.4	5.3	19.3	1.1	67.6	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	40.4	5.3	19.3	1.1	67.6	11.5
Queue Length 50th (ft)	0	72	0	195	0	44	172
Queue Length 95th (ft)	#29	#160	33	253	16	#124	241
Internal Link Dist (ft)				222			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	272	303	557	2122	1166	154	2028
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.68	0.23	0.80	0.17	0.78	0.68

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	207	30	391	146	28	35	381	2042	65	1832	132
v/c Ratio	0.94	0.25	0.71	0.79	0.23	0.18	1.14	0.64	0.48	1.05	0.16
Control Delay	101.8	59.2	13.1	83.1	58.8	1.9	137.3	16.4	66.2	65.7	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	22.4	0.0
Total Delay	101.8	59.2	13.1	83.1	58.8	1.9	137.3	18.5	66.2	88.1	6.2
Queue Length 50th (ft)	~183	23	0	114	22	0	~350	358	50	~822	13
Queue Length 95th (ft)	#358	55	52	#236	53	0	#578	481	100	#1036	51
Internal Link Dist (ft)		707			593			403		593	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	220	444	961	184	444	450	334	3176	171	1752	830
Starvation Cap Reductn	0	0	0	0	0	0	0	939	0	184	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.07	0.41	0.79	0.06	0.08	1.14	0.91	0.38	1.17	0.16

Intersection Summary

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

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

24: Sierra College Blvd & Project Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	402	175	1822	387	154	1677
v/c Ratio	0.53	0.36	0.83	0.32	0.70	0.75
Control Delay	23.4	6.0	20.4	2.1	46.8	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	6.0	20.4	2.1	46.8	11.3
Queue Length 50th (ft)	67	0	202	16	55	186
Queue Length 95th (ft)	102	40	#339	36	#147	338
Internal Link Dist (ft)	464		593			346
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	1026	596	2200	1313	220	2234
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.29	0.83	0.29	0.70	0.75

Intersection Summary

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

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	224	75	1483	190	105	1491
v/c Ratio	0.24	0.76	0.17	0.66	0.15	0.78	0.74
Control Delay	1.9	42.5	2.2	14.4	1.1	66.7	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.9	42.5	2.2	14.4	1.1	66.7	12.0
Queue Length 50th (ft)	0	72	0	146	0	35	183
Queue Length 95th (ft)	0	#171	10	195	15	#109	263
Internal Link Dist (ft)				222			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	297	295	537	2250	1199	135	2012
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.76	0.14	0.66	0.16	0.78	0.74

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	161	28	310	181	29	24	314	1850	67	1805	145
v/c Ratio	0.76	0.24	0.66	0.98	0.26	0.12	1.01	0.58	0.49	0.99	0.17
Control Delay	76.3	59.5	13.3	115.9	60.5	1.2	104.2	15.0	65.9	50.1	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	38.1	0.0
Total Delay	76.3	59.5	13.3	115.9	60.5	1.2	104.2	16.2	65.9	88.1	6.5
Queue Length 50th (ft)	127	22	0	145	22	0	~253	305	51	719	18
Queue Length 95th (ft)	#265	54	48	#303	54	0	#460	397	101	#960	55
Internal Link Dist (ft)		707			468			403		592	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	212	446	915	185	429	473	311	3165	173	1815	857
Starvation Cap Reductn	0	0	0	0	0	0	0	988	0	215	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.06	0.34	0.98	0.07	0.05	1.01	0.85	0.39	1.13	0.17

Intersection Summary

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

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

24: Sierra College Blvd & Project Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	477	249	1500	505	240	1624
v/c Ratio	0.57	0.44	0.81	0.45	0.77	0.75
Control Delay	23.5	5.6	23.4	4.2	43.8	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	5.6	23.4	4.2	43.8	12.0
Queue Length 50th (ft)	81	0	191	41	89	213
Queue Length 95th (ft)	122	47	#270	80	#195	317
Internal Link Dist (ft)	372		592			347
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	996	636	1848	1199	328	2168
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.39	0.81	0.42	0.73	0.75

Intersection Summary

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

Cumulative Conditions – Long Term Baseline

Cumulative Long-Term Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	200	970	350	280	490	-	65	215	150	95	585	-
2	Taylor Road & Horseshoe Bar Road	100	400	125	190	380	-	-	115	-	-	160	160
3	Horseshoe Bar Road & I-80 Westbound Ramp	85	680	-	160	450	95	-	935	250	275	95	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	2,350	100	-	685	-	-	-	-	-	1,080	-
5	Barton Road & Brace Road	-	2,895	-	-	-	-	-	1,980	-	-	560	-
6	Sierra College Boulevard & Taylor Road	210	550	550	210	1,500	450	150	900	250	215	2,060	215
7	Sierra College Boulevard & Brace Road	-	1,265	200	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	60	230	150
9	Sierra College Boulevard & I-80 WB Ramps	200	1,530	325	-	370	150	530	-	530	740	1,320	740
10	Sierra College Boulevard & I-80 EB Ramps	-	710	280	250	1,530	500	1,315	1,315	205	345	-	330
11	Sierra College Boulevard & Schriber Way	90	395	-	-	300	100	200	200	-	-	415	415
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	150	1,675	45	220	710	200	130	2,000	75	265	745	150
13	Sierra College Boulevard & Stadium Dwy	200	1,580	-	-	1,690	-	200	-	60	-	-	-
14	Sierra College Boulevard & Rocklin Road	245	650	-	245	1,575	175	240	925	925	315	1,325	-
15	Pacific Street & Dominguez Road/Delmar Avenue	210	1,860	-	200	850	150	-	700	315	-	1,935	140
16	Pacific Street & Rocklin Road	265	420	110	230	410	-	130	285	-	250	330	330
17	Granite Drive & Rocklin Road	100	140	-	325	625	625	225	675	-	135	650	150
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	635	1,165	-	-	580	280	300	555	-
19	I-80 Eastbound Ramps & Rocklin Road	455	1,115	455	-	-	-	170	520	-	-	370	-
20	Aguilar Road & Rocklin Road	320	-	320	-	-	-	75	400	-	85	1,260	-
21	Sierra College Boulevard & Driveway South of Brace Road	135	1,000	-	-	220	-	-	-	60	-	-	-
22	Dominguez Road & Granite Driive	200	1,390	-	200	730	-	200	370	-	200	2,000	-
23	El Don Drive & Rocklin Road	140	530	-	-	580	95	410	1,260	-	265	1,430	-
24	Sierra College Boulevard & Project Driveway	160	-	-	-	-	-	250	250	-	-	-	-
25	Brace Road & Project Driveway	Does not exist											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	900	900	-	200	800	-	250	1900	520	360	2500	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	4,500	-	100	1,300	-	-	-	-	1,450	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	105	1,100	-	105	3,100	-	-	85	30	-	910	30
29	Taylor Road & English Colony Way-Rock Springs Road	150	1,900	-	140	350	115	-	560	30	-	940	-
30	Taylor Road & Penryn Road (North	85	170	-	-	555	-	55	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	2,600	-	85	180	-	-	-	-	495	-	-
32	Taylor Road & Del Oro High School North Lot	-	185	-	70	1,600	-	-	-	-	200	-	45
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Drop Off	150	300	-	90	190	-	-	50	-	-	75	-
34	Taylor Road & Del Oro High School South Lot	-	1,200	-	150	300	-	-	-	-	65	-	65
35	Taylor Road & Rippey Road	140	465	-	-	610	-	3,500	-	-	-	-	-
36	Taylor Road & Webb Street	185	370	-	160	500	105	-	-	1,070	-	190	-
37	Project Driveway East & Brace Road	Does not exist											

Cumulative-Long Term AM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#417**	527	35	#141	**#527**	-	**206**	170	98	**299**	#485	-
2	Taylor Road & Horseshoe Bar Road	-	**#432**	-	**#495**	284	-	-	75	-	-	19	**167**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**#308**	183	-	49	97	**108**	-	71	7	46	81	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	3	-	-	-	-	-	685	-
5	Barton Road & Brace Road	-	20	-	-	-	-	-	-	-	-	8	-
6	Sierra College Boulevard & Taylor Road	**#424**	280	28	113	#1012	127	**#198**	171	-	**#381**	#561	5
7	Sierra College Boulevard & Brace Road	-	186	-	#85	216	-	-	-	11	**#185**	-	45
8	Sierra College Boulevard & Granite Drive	**#461**	285	24	118	586	67	106	26	34	**#263**	56	-
9	Sierra College Boulevard & I-80 WB Ramps	#190	242	31	-	**803**	2	20	-	55	429	202	138
10	Sierra College Boulevard & I-80 EB Ramps	-	297	-	m150	#1336	m15	258	73	**#574**	42	-	-
11	Sierra College Boulevard & Schriber Way	**115**	117	-	-	**#1607**	90	**#213**	55	-	-	49	53
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	**#551**	240	28	104	**#1436**	153	**#293**	64	**138**	83	173	-
13	Sierra College Boulevard & Stadium Dwy	**#275**	127	-	-	675	-	39	-	20	-	-	-
14	Sierra College Boulevard & Rocklin Road	**#334**	#592	-	**#253**	342	95	#160	250	72	**#318**	243	-
15	Pacific Street & Dominguez Road/Delmar Avenue	**#390**	350	-	90	#724	34	-	77	47	-	#525	12
16	Pacific Street & Rocklin Road	100	369	**#900**	**#488**	325	-	56	81	-	**#744**	**#770**	117
17	Granite Drive & Rocklin Road	37	29	-	184	183	47	#195	#471	-	31	#571	**251**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	91	#379	-	-	#374	64	**#353**	268	-
19	I-80 Eastbound Ramps & Rocklin Road	**476**	#883	**#811**	-	-	-	**#303**	304	-	-	**#556**	37
20	Aguilar Road & Rocklin Road	#270	-	29	-	-	-	62	**#503**	-	43	114	-
21	Sierra College Boulevard & Driveway South of Brace Road	20	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	#90	42	-	#133	157	-	#155	192	-	**#207**	#452	-
23	El Don Drive & Rocklin Road	**189**	35	-	-	#76	-	**#965**	345	-	26	228	-
24	Sierra College Boulevard & Project Driveway	**180**	-	-	-	-	-	-	20	-	-	-	-
25	Brace Road & Project Driveway	DNE											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	#755	-	-	21	-	-	-	258	**#915**	**#741**	316	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	152	-	**#214**	374	-	-	-	-	55	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	3	-	-	-	38	-	-	470	**53**
29	Taylor Road & English Colony Way-Rock Springs Road	**#202**	164	-	25	**#668**	**136**	-	118	**35**	-	184	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	5	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	169	-	**147**	**299**	-	-	-	-	63	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	35	-	-	-	-	-	**280**	-	13
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dr	-	-	-	15	-	-	-	-	-	-	**898**	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	20	-	-	-	-	-	**333**	-	18
35	Taylor Road & Rippey Road	10	-	-	-	-	-	23	-	-	-	-	-
36	Taylor Road & Webb Street	13	-	-	3	-	-	-	-	215	-	85	-

Notes:

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

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

Bold indicated queues in excess of capacity.

Cumulative-Long Term PM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#533**	370	57	103	183	-	**112**	**277**	147	**115**	135	-
2	Taylor Road & Horseshoe Bar Road	49	**#989**	59	**#788**	339	-	-	96	-	-	128	**367**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**207**	356	-	69	186	**100**	-	#196	6	**97**	**92**	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	10	-	-	-	-	-	**2005**	-
5	Barton Road & Brace Road	-	73	-	-	-	-	-	-	-	-	5	-
6	Sierra College Boulevard & Taylor Road	**#217**	**#855**	286	#88	470	14	**190**	#500	172	**#355**	242	1
7	Sierra College Boulevard & Brace Road	-	**#1792**	-	**#612**	203	-	-	-	**#878**	**149**	-	57
8	Sierra College Boulevard & Granite Drive	**#319**	**#1078**	6	#214	487	86	**#631**	48	45	**162**	58	22
9	Sierra College Boulevard & I-80 WB Ramps	**m#528**	m540	m43	-	**#874**	-	#88	-	59	#628	184	111
10	Sierra College Boulevard & I-80 EB Ramps	-	495	45	m#164	m292	m1	306	128	53	#257	-	**#517**
11	Sierra College Boulevard & Schriber Way	82	356	-	-	**#809**	87	183	50	-	-	53	31
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	**#575**	#1032	**102**	**#243**	**#1088**	22	**#438**	83	**#496**	#150	145	-
13	Sierra College Boulevard & Stadium Dwy	80	#1027	-	-	414	-	130	-	**77**	-	-	-
14	Sierra College Boulevard & Rocklin Road	**#345**	**#1653**	-	**#646**	608	131	**#644**	194	#779	#243	240	-
15	Pacific Street & Dominguez Road/Delmar Avenue	**242**	**#2072**	-	#127	596	-	-	#605	**83**	-	#498	23
16	Pacific Street & Rocklin Road	97	416	**#950**	**#389**	**450**	-	101	188	-	**#812**	**#836**	173
17	Granite Drive & Rocklin Road	83	48	-	254	255	60	**#437**	479	-	#61	#614	**#380**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	108	#468	-	-	**#708**	**277**	**#878**	283	-
19	I-80 Eastbound Ramps & Rocklin Road	**#465**	#356	#266	-	-	-	**#403**	156	-	-	**#738**	42
20	Aguilar Road & Rocklin Road	135	-	8	-	-	-	51	#255	-	51	#288	-
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	8	-	-	-
22	Dominguez Road & Granite Driive	61	#305	-	**#212**	108	-	#90	**#424**	-	**#202**	203	-
23	El Don Drive & Rocklin Road	89	23	-	-	#331	#93	#253	213	-	40	259	-
24	Sierra College Boulevard & Project Driveway	48	-	-	-	-	-	**408**	53	-	-	-	-
25	Brace Road & Project Driveway	DNE											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	**#1757**	46	-	-	-	-	20	#769	#477	**#385**	431	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	#1138	-	**#388**	153	-	-	-	-	186	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	3	-	-	8	-	-	-	-	-	-	-	5
29	Taylor Road & English Colony Way-Rock Springs Road	118	#443	-	29	164	28	-	#361	**62**	-	91	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	#260	-	**#192**	24	-	-	-	-	46	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	20	-	-
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dr	-	-	-	-	-	-	-	-	-	-	13	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	3	-	-	-	-	-	50	-	8
35	Taylor Road & Rippey Road	3	-	-	-	-	-	5	-	-	-	-	-
36	Taylor Road & Webb Street	23	-	-	-	-	-	-	-	38	-	3	-

Notes:

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

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

Bold indicated queues in excess of capacity.

Cumulative-Long Term SAT

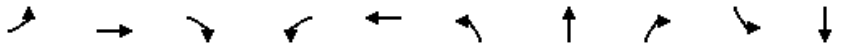
Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#287**	229	33	46	85	-	**77**	85	45	**110**	53	-
2	Taylor Road & Horseshoe Bar Road	36	**#504**	44	**#407**	219	-	-	39	-	-	105	**105**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**#325**	260	-	51	161	**89**	-	#201	-	66	**115**	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	8	-	-	-	-	-	**1393**	-
5	Barton Road & Brace Road	-	210	-	-	-	-	-	-	-	-	8	-
6	Sierra College Boulevard & Taylor Road	#205	267	130	58	#287	5	92	182	103	**#256**	134	-
7	Sierra College Boulevard & Brace Road	-	#530	-	**#264**	93	-	-	-	#191	**115**	-	39
8	Sierra College Boulevard & Granite Drive	#244	**384**	28	#143	260	44	**#301**	34	36	**138**	45	2
9	Sierra College Boulevard & I-80 WB Ramps	**m#599**	m336	m27	-	**#595**	-	#190	-	223	547	193	96
10	Sierra College Boulevard & I-80 EB Ramps	-	277	14	m212	m178	m8	277	172	26	#194	-	**#443**
11	Sierra College Boulevard & Schriber Way	59	137	-	-	**#478**	78	155	42	-	-	38	34
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	**#759**	332	**95**	173	#585	172	**#427**	129	**94**	64	267	-
13	Sierra College Boulevard & Stadium Dwy	32	221	-	-	176	-	28	-	23	-	-	-
14	Sierra College Boulevard & Rocklin Road	146	**#714**	-	**#354**	281	33	201	132	116	#160	113	-
15	Pacific Street & Dominguez Road/Delmar Avenue	#155	#547	-	37	#368	17	-	136	40	-	63	-
16	Pacific Street & Rocklin Road	31	223	**208**	**#243**	195	-	70	83	-	240	245	44
17	Granite Drive & Rocklin Road	69	47	-	189	191	52	**#419**	263	-	43	195	86
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	54	89	-	-	280	77	**323**	109	-
19	I-80 Eastbound Ramps & Rocklin Road	#230	#207	75	-	-	-	#164	73	-	-	#237	26
20	Aguilar Road & Rocklin Road	128	-	9	-	-	-	52	119	-	39	103	-
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	57	#352	-	140	118	-	#166	**#378**	-	**#263**	218	-
23	El Don Drive & Rocklin Road	71	20	-	-	56	-	45	163	-	39	120	-
24	Sierra College Boulevard & Project Driveway	28	-	-	-	-	-	**328**	38	-	-	-	-
25	Brace Road & Project Driveway	DNE											
26	Sierra College Boulevard/Sierra College Blvd & SR 193	**#1625**	32	-	21	34	-	21	#628	#349	**#680**	187	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	297	-	**#165**	122	-	-	-	-	69	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	-	-	20	-	-	-	48	-	-	170	-
29	Taylor Road & English Colony Way-Rock Springs Road	**141**	326	-	33	199	25	-	361	**95**	-	105	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	132	-	**#170**	30	-	-	-	-	35	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	3	-	-
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dr	-	-	-	3	-	-	-	-	-	-	40	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	3	-	-	-	-	-	45	-	8
35	Taylor Road & Rippey Road	5	-	-	-	-	-	5	-	-	-	-	-
36	Taylor Road & Webb Street	13	-	-	-	-	-	-	-	75	-	128	-

Notes:

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

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

Bold indicated queues in excess of capacity.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	184	149	351	270	385	293	552	109	80	931
v/c Ratio	0.71	0.58	0.71	0.67	0.92	0.94	0.73	0.16	0.70	0.95
Control Delay	63.4	56.5	15.4	52.0	70.9	87.9	37.9	5.3	87.1	61.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	56.5	15.4	52.0	70.9	87.9	37.9	5.3	87.1	61.0
Queue Length 50th (ft)	137	109	18	190	274	226	355	0	61	361
Queue Length 95th (ft)	206	170	98	299	#485	#417	527	35	#141	#527
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	409	403	587	405	418	311	760	674	120	975
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.37	0.60	0.67	0.92	0.94	0.73	0.16	0.67	0.95

Intersection Summary

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

Lane Group	EBT	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	75	10	457	516	5	575	844
v/c Ratio	0.45	0.06	0.62	0.82	0.01	0.84	0.58
Control Delay	40.5	33.4	16.7	36.8	0.0	36.1	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	33.4	16.7	36.8	0.0	36.1	6.0
Queue Length 50th (ft)	34	5	141	233	0	264	130
Queue Length 95th (ft)	75	19	167	#432	0	#495	284
Internal Link Dist (ft)	142	528		1160			350
Turn Bay Length (ft)					125	190	
Base Capacity (vph)	330	429	794	736	664	761	1459
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.02	0.58	0.70	0.01	0.76	0.58

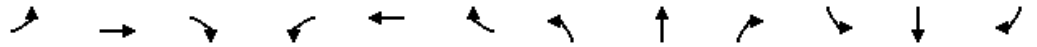
Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	66	33	82	308	626	33	110	681
v/c Ratio	0.53	0.16	0.14	0.33	0.67	0.31	0.18	0.21	0.73
Control Delay	47.4	1.9	35.8	33.1	36.4	12.7	39.8	24.9	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	1.9	35.8	33.1	36.4	12.7	39.8	24.9	7.9
Queue Length 50th (ft)	27	0	15	30	131	67	15	39	0
Queue Length 95th (ft)	71	7	46	81	#308	183	49	97	108
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	252	774	618	612	671	2086	222	800	1059
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.09	0.05	0.13	0.46	0.30	0.15	0.14	0.64

Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	90	117	80	489	378	69	234	702	218	64	1585	266
v/c Ratio	0.87	0.42	0.22	1.04	0.94	0.16	1.04	0.40	0.19	0.54	1.03	0.29
Control Delay	126.4	62.0	1.5	112.5	87.4	1.4	131.3	23.4	1.5	84.1	71.6	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	126.4	62.0	1.5	112.5	87.4	1.4	131.3	23.4	1.5	84.1	71.6	10.7
Queue Length 50th (ft)	89	104	0	~265	364	0	~247	224	0	61	~873	69
Queue Length 95th (ft)	#198	171	0	#381	#561	5	#424	280	28	113	#1012	127
Internal Link Dist (ft)		429			1915			582			5309	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	104	288	363	472	413	448	225	1772	1135	141	1542	911
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.41	0.22	1.04	0.92	0.15	1.04	0.40	0.19	0.45	1.03	0.29

Intersection Summary

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

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

Lane Group	EBR	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	69	314	234	921	85	2038
v/c Ratio	0.18	0.72	0.43	0.58	0.63	0.68
Control Delay	2.5	30.9	5.8	14.1	49.5	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.5	30.9	5.8	14.1	49.5	9.9
Queue Length 50th (ft)	0	101	0	130	30	168
Queue Length 95th (ft)	11	#185	45	186	#85	216
Internal Link Dist (ft)				226		582
Turn Bay Length (ft)		100			170	
Base Capacity (vph)	485	483	579	1599	148	2996
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.65	0.40	0.58	0.57	0.68

Intersection Summary

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	73	10	130	167	31	26	365	1026	83	1927	151
v/c Ratio	0.52	0.10	0.50	0.86	0.24	0.12	0.87	0.36	0.55	0.87	0.20
Control Delay	66.3	56.6	16.2	89.0	57.5	1.2	66.2	13.3	66.8	36.6	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
Total Delay	66.3	56.6	16.2	89.0	57.5	1.2	66.2	13.6	66.8	36.6	8.9
Queue Length 50th (ft)	55	8	0	130	23	0	275	140	63	489	23
Queue Length 95th (ft)	106	26	34	#263	56	0	#461	191	118	586	67
Internal Link Dist (ft)		707			453			403		628	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	181	429	701	195	439	462	419	2856	193	2210	740
Starvation Cap Reductn	0	0	0	0	0	0	0	1067	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.02	0.19	0.86	0.07	0.06	0.87	0.57	0.43	0.87	0.20

Intersection Summary

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

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	5	71	799	219	211	87	1076	163	2266	54
v/c Ratio	0.08	0.42	0.89	0.49	0.46	0.84	0.33	0.16	0.86	0.06
Control Delay	71.2	24.4	64.4	31.0	18.3	114.4	11.5	2.9	31.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.6	0.0
Total Delay	71.2	24.4	64.4	31.0	18.3	114.4	11.5	2.9	78.3	0.3
Queue Length 50th (ft)	5	6	378	108	52	85	121	0	640	0
Queue Length 95th (ft)	20	55	429	202	138	#190	242	31	803	2
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	61	169	1141	476	492	104	3231	999	2632	960
Starvation Cap Reductn	0	0	0	0	0	0	0	0	680	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.42	0.70	0.46	0.43	0.84	0.33	0.16	1.16	0.06

Intersection Summary

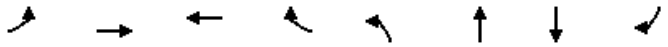
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	549	125	462	16	33	1266	38	239	2152	185
v/c Ratio	0.56	0.13	0.97	0.19	0.14	0.44	0.05	0.76	0.98	0.19
Control Delay	44.1	39.8	76.1	72.3	1.3	25.5	0.1	82.8	34.8	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Total Delay	44.1	39.8	76.1	72.3	1.3	26.4	0.1	82.8	34.8	1.9
Queue Length 50th (ft)	231	46	356	15	0	213	0	115	682	1
Queue Length 95th (ft)	258	73	#574	42	0	297	0	m150	#1336	m15
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	998	1008	500	84	261	2871	819	387	2207	993
Starvation Cap Reductn	0	0	0	0	0	1210	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.12	0.92	0.19	0.13	0.76	0.05	0.62	0.98	0.19

Intersection Summary

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

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



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	141	76	21	76	65	1109	2429	201
v/c Ratio	0.76	0.33	0.22	0.55	0.45	0.24	1.10	0.19
Control Delay	89.7	18.3	72.5	28.1	76.0	6.0	81.1	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.9
Total Delay	89.7	18.3	72.5	28.1	76.0	6.3	81.6	8.7
Queue Length 50th (ft)	135	4	20	0	62	86	~1434	47
Queue Length 95th (ft)	#213	55	49	53	115	117	#1607	90
Internal Link Dist (ft)		343	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	212	254	218	223	145	4584	2202	1041
Starvation Cap Reductn	0	0	0	0	0	2525	413	595
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.30	0.10	0.34	0.45	0.54	1.36	0.45

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	136	38	261	114	130	11	315	1027	82	65	2207	245
v/c Ratio	1.28	0.16	0.68	0.52	0.61	0.05	1.30	0.36	0.09	0.56	1.25	0.38
Control Delay	225.8	52.3	23.4	66.7	66.9	0.4	204.2	16.7	3.9	75.2	145.3	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.6
Total Delay	225.8	52.3	23.4	66.7	66.9	0.4	204.2	16.7	3.9	75.2	146.0	15.5
Queue Length 50th (ft)	~144	29	44	47	106	0	~337	170	1	53	~1212	78
Queue Length 95th (ft)	#293	64	138	83	173	0	#551	240	28	104	#1436	153
Internal Link Dist (ft)		2100			372			343			363	
Turn Bay Length (ft)	130		75	265		150	150		45	220		200
Base Capacity (vph)	106	518	589	252	512	411	243	2814	886	161	1772	647
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	329	164
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	0.07	0.44	0.45	0.25	0.03	1.30	0.36	0.09	0.40	1.53	0.51

Intersection Summary

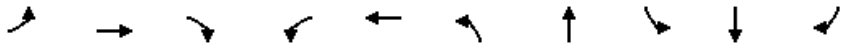
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	53	20	230	1592	3342
v/c Ratio	0.29	0.19	0.89	0.52	0.98
Control Delay	66.5	27.0	91.2	2.6	30.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	27.0	91.2	2.6	30.3
Queue Length 50th (ft)	24	0	206	128	973
Queue Length 95th (ft)	39	20	#275	127	675
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	478	248	259	3075	3412
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.11	0.08	0.89	0.52	0.98

Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	114	630	245	201	736	529	1196	163	1266	332
v/c Ratio	0.71	0.67	0.43	1.25	0.74	1.18	1.00	1.03	0.78	0.48
Control Delay	69.6	36.8	8.0	194.1	30.5	143.5	59.5	124.6	35.1	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.6	36.8	8.0	194.1	30.5	143.5	59.5	124.6	35.1	8.0
Queue Length 50th (ft)	73	190	12	~165	175	~216	~412	~114	271	21
Queue Length 95th (ft)	#160	250	72	#318	243	#334	#592	#253	342	95
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	168	1087	623	161	1106	447	1196	159	1632	689
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.58	0.39	1.25	0.67	1.18	1.00	1.03	0.78	0.48

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	66	137	440	66	297	494	66	703	99
v/c Ratio	0.28	0.31	1.02	0.13	1.00	0.59	0.53	0.96	0.15
Control Delay	35.1	7.2	88.1	2.4	98.0	21.5	62.5	57.3	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	7.2	88.1	2.4	98.0	21.5	62.5	57.3	5.0
Queue Length 50th (ft)	37	0	~321	0	212	227	45	474	1
Queue Length 95th (ft)	77	47	#525	12	#390	350	90	#724	34
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	236	448	432	492	297	842	150	734	650
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.31	1.02	0.13	1.00	0.59	0.44	0.96	0.15

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	28	167	511	528	217	61	772	900	278	739
v/c Ratio	0.25	0.56	1.02	1.04	0.38	0.49	0.63	1.09	1.24	0.51
Control Delay	63.1	42.2	91.3	94.7	14.5	72.3	38.2	80.9	186.9	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	42.2	91.3	94.7	14.5	72.3	38.2	80.9	186.9	29.8
Queue Length 50th (ft)	23	43	~486	~508	44	51	286	~619	~293	245
Queue Length 95th (ft)	56	81	#744	#770	117	100	369	#900	#488	325
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	328	762	500	509	572	148	1218	826	224	1456
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.22	1.02	1.04	0.38	0.41	0.63	1.09	1.24	0.51

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	155	1218	17	1270	529	23	22	221	221	218
v/c Ratio	0.76	0.71	0.17	1.01	0.73	0.15	0.15	0.64	0.63	0.44
Control Delay	64.3	23.1	46.2	57.0	18.5	42.0	30.2	39.6	39.1	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	23.1	46.2	57.0	18.5	42.0	30.2	39.6	39.1	6.9
Queue Length 50th (ft)	84	237	9	~363	109	12	6	115	115	0
Queue Length 95th (ft)	#195	#471	31	#571	251	37	29	184	183	47
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	203	1723	98	1262	725	155	142	584	591	684
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.71	0.17	1.01	0.73	0.15	0.15	0.38	0.37	0.32

Intersection Summary

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

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

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	1045	522	371	1365	107	438
v/c Ratio	0.82	0.59	0.91	0.60	0.25	0.96
Control Delay	33.5	5.3	62.3	10.6	28.6	61.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	5.3	62.3	10.6	28.6	61.5
Queue Length 50th (ft)	288	0	203	214	48	198
Queue Length 95th (ft)	#374	64	#353	268	91	#379
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1271	878	424	2275	443	466
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.59	0.88	0.60	0.24	0.94

Intersection Summary

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	211	928	1100	72	555	759	748
v/c Ratio	0.98	0.56	0.99	0.13	0.74	1.08	1.03
Control Delay	106.0	22.8	64.0	8.6	31.8	83.6	68.6
Queue Delay	0.0	0.0	9.9	0.0	0.0	0.0	0.0
Total Delay	106.0	22.8	73.9	8.6	31.8	83.6	68.6
Queue Length 50th (ft)	151	242	405	3	329	~625	~563
Queue Length 95th (ft)	#303	304	#556	37	476	#883	#811
Internal Link Dist (ft)		595	411			642	
Turn Bay Length (ft)	170				455		455
Base Capacity (vph)	215	1653	1106	539	755	706	728
Starvation Cap Reductn	0	0	38	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.56	1.03	0.13	0.74	1.08	1.03

Intersection Summary

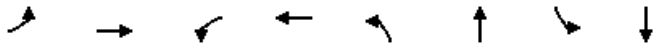
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	57	2391	34	856	356	80
v/c Ratio	0.38	0.87	0.30	0.31	0.81	0.19
Control Delay	42.6	21.1	42.0	10.9	42.0	7.0
Queue Delay	0.0	1.0	0.0	0.0	0.0	0.0
Total Delay	42.6	22.1	42.0	10.9	42.0	7.0
Queue Length 50th (ft)	28	397	17	91	163	0
Queue Length 95th (ft)	62	#503	43	114	#270	29
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	149	2746	116	2756	518	470
Starvation Cap Reductn	0	155	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.92	0.29	0.31	0.69	0.17

Intersection Summary

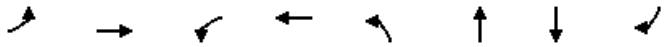
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	272	223	560	76	141	114	522
v/c Ratio	0.79	0.58	0.78	0.94	0.56	0.14	0.70	0.49
Control Delay	68.8	30.8	51.7	51.9	52.5	16.5	59.6	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.8	30.8	51.7	51.9	52.5	16.5	59.6	24.0
Queue Length 50th (ft)	65	115	107	254	37	20	56	108
Queue Length 95th (ft)	#155	192	#207	#452	#90	42	#133	157
Internal Link Dist (ft)		705		2100		773		773
Turn Bay Length (ft)	200		200		200		200	
Base Capacity (vph)	165	472	305	608	139	1024	165	1076
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.58	0.73	0.92	0.55	0.14	0.69	0.49

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	777	1337	11	685	174	33	47	45
v/c Ratio	0.96	0.40	0.09	0.67	0.63	0.12	0.52	0.23
Control Delay	54.6	12.0	50.5	42.7	53.4	21.2	51.0	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	12.0	50.5	42.7	53.4	21.2	51.0	2.8
Queue Length 50th (ft)	531	128	8	154	118	7	15	0
Queue Length 95th (ft)	#965	345	26	228	189	35	#76	0
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	810	3441	120	1136	495	485	91	195
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.39	0.09	0.60	0.35	0.07	0.52	0.23

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	233	1072	478	444	528	94	6	6
v/c Ratio	0.45	1.11	1.14	0.45	1.02	0.10	0.09	0.02
Control Delay	41.3	81.4	131.5	17.5	90.2	0.2	67.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	81.4	131.5	17.5	90.2	0.2	67.6	0.0
Queue Length 50th (ft)	156	~600	~460	189	444	0	5	0
Queue Length 95th (ft)	258	#915	#741	316	#755	0	21	0
Internal Link Dist (ft)	684			870		7195		1542
Turn Bay Length (ft)		520	360				200	
Base Capacity (vph)	520	962	421	996	518	963	67	338
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	1.11	1.14	0.45	1.02	0.10	0.09	0.02

Intersection Summary

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

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

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	219	648	302	2049
v/c Ratio	0.59	0.44	0.73	0.78
Control Delay	11.6	14.3	34.7	8.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.6	14.3	34.7	8.3
Queue Length 50th (ft)	2	85	103	157
Queue Length 95th (ft)	55	152	#214	374
Internal Link Dist (ft)	845	10454		3226
Turn Bay Length (ft)	1450		100	
Base Capacity (vph)	615	1478	470	2620
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.44	0.64	0.78

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	118	142	198	154	290	12	772	333
v/c Ratio	0.57	0.45	0.73	0.87	0.29	0.13	0.93	0.44
Control Delay	53.5	11.1	57.4	86.8	13.2	52.6	46.9	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.5	11.1	57.4	86.8	13.2	52.6	46.9	13.1
Queue Length 50th (ft)	74	0	121	101	84	8	468	76
Queue Length 95th (ft)	118	35	184	#202	164	25	#668	136
Internal Link Dist (ft)	422		500		2517		526	
Turn Bay Length (ft)		30		150		140		115
Base Capacity (vph)	310	393	326	178	1012	89	831	755
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.36	0.61	0.87	0.29	0.13	0.93	0.44

Intersection Summary

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

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	204	429	261	1070
v/c Ratio	0.62	0.50	0.75	0.79
Control Delay	22.8	16.7	41.7	13.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.8	16.7	41.7	13.1
Queue Length 50th (ft)	38	126	105	226
Queue Length 95th (ft)	63	169	147	299
Internal Link Dist (ft)	429	6529		184
Turn Bay Length (ft)	495		85	
Base Capacity (vph)	509	854	395	1349
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.40	0.50	0.66	0.79

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	101	270	551	90	124	461	433	360	73	371
v/c Ratio	0.29	0.73	0.77	0.48	0.62	0.78	0.52	0.42	0.50	0.72
Control Delay	37.4	50.3	13.4	53.5	51.3	42.3	26.2	4.1	59.6	48.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.4	50.3	13.4	53.5	51.3	42.3	26.2	4.1	59.6	48.0
Queue Length 50th (ft)	55	162	25	55	65	263	206	0	46	114
Queue Length 95th (ft)	112	277	147	115	135	#533	370	57	103	183
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	487	518	799	492	497	600	863	885	197	710
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.52	0.69	0.18	0.25	0.77	0.50	0.41	0.37	0.52

Intersection Summary

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

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	69	80	489	21	803	112	590	734
v/c Ratio	0.39	0.67	0.64	0.29	0.96	0.16	0.95	0.50
Control Delay	52.3	85.1	25.8	74.7	57.9	9.9	68.2	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	85.1	25.8	74.7	57.9	9.9	68.2	7.1
Queue Length 50th (ft)	47	69	251	18	665	20	509	220
Queue Length 95th (ft)	96	128	367	49	#989	59	#788	339
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	244	161	762	78	868	728	626	1477
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.50	0.64	0.27	0.93	0.15	0.94	0.50

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBR
Lane Group Flow (vph)	111	64	90	133	229	1021	53	218	612
v/c Ratio	1.18	0.11	0.47	0.55	0.74	0.78	0.40	0.52	0.73
Control Delay	184.5	1.1	46.2	29.7	49.1	27.6	50.0	33.8	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	184.5	1.1	46.2	29.7	49.1	27.6	50.0	33.8	8.7
Queue Length 50th (ft)	~77	0	48	34	119	253	28	100	0
Queue Length 95th (ft)	#196	6	97	92	207	356	69	186	100
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	94	586	403	437	415	1509	145	509	880
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.18	0.11	0.22	0.30	0.55	0.68	0.37	0.43	0.70

Intersection Summary

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

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

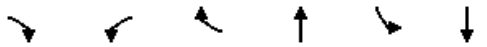
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	147	348	261	538	207	76	141	1598	598	38	1022	76
v/c Ratio	0.70	1.00	0.61	0.98	0.47	0.17	0.78	0.96	0.55	0.59	0.75	0.09
Control Delay	71.6	99.2	25.3	87.2	48.2	0.9	84.2	47.5	10.7	96.3	38.3	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.5	0.8	0.0	0.0	0.0
Total Delay	71.6	99.2	25.3	87.2	48.2	0.9	84.2	84.0	11.5	96.3	38.3	1.5
Queue Length 50th (ft)	120	~301	76	236	153	0	117	678	191	32	387	0
Queue Length 95th (ft)	190	#500	172	#355	242	1	#217	#855	286	#88	470	14
Internal Link Dist (ft)		429			1915			582			4602	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	262	349	429	550	436	458	194	1670	1095	64	1393	925
Starvation Cap Reductn	0	0	0	0	0	0	0	196	234	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	1.00	0.61	0.98	0.47	0.17	0.73	1.08	0.69	0.59	0.73	0.08

Intersection Summary

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

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

7: Sierra College Blvd & Brace Rd



Lane Group	EBR	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	568	109	135	2521	328	1417
v/c Ratio	1.32	0.28	0.30	1.32	1.31	0.39
Control Delay	198.0	51.0	9.0	175.8	214.1	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3
Total Delay	198.0	51.0	9.0	175.8	214.1	8.9
Queue Length 50th (ft)	~640	90	0	~1671	~412	179
Queue Length 95th (ft)	#878	149	57	#1792	#612	203
Internal Link Dist (ft)				226		582
Turn Bay Length (ft)		100			170	
Base Capacity (vph)	429	386	446	1917	250	3610
Starvation Cap Reductn	0	0	0	0	0	1368
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.32	0.28	0.30	1.32	1.31	0.63

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	441	27	303	128	32	96	234	2043	106	1660	197
v/c Ratio	0.91	0.07	0.37	0.64	0.28	0.43	0.88	0.89	0.80	0.87	0.29
Control Delay	67.7	40.6	5.9	66.4	61.1	9.3	82.8	36.5	95.1	41.8	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.3	0.0	0.0	0.0
Total Delay	67.7	40.6	5.9	66.4	61.1	9.3	82.8	82.8	95.1	41.8	11.2
Queue Length 50th (ft)	339	17	0	98	25	0	184	528	84	441	35
Queue Length 95th (ft)	#546	45	42	162	58	22	#339	624	#188	525	93
Internal Link Dist (ft)		707			453			403		618	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	485	658	1178	268	446	474	266	2305	132	1907	671
Starvation Cap Reductn	0	0	0	0	0	0	0	513	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.04	0.26	0.48	0.07	0.20	0.88	1.14	0.80	0.87	0.29

Intersection Summary

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

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	37	128	1101	171	158	324	1952	271	2053	37
v/c Ratio	0.58	0.35	0.96	0.37	0.33	1.06	0.66	0.26	1.11	0.06
Control Delay	99.3	16.1	63.7	36.7	18.2	118.2	23.9	2.6	98.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
Total Delay	99.3	16.1	63.7	36.7	18.2	118.2	23.9	2.6	99.5	0.2
Queue Length 50th (ft)	34	26	495	110	44	~347	491	18	~781	0
Queue Length 95th (ft)	#88	59	#628	184	111	m#528	m540	m43	#874	0
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	64	368	1190	469	482	306	2937	1035	1848	660
Starvation Cap Reductn	0	0	0	0	0	0	0	0	344	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.35	0.93	0.36	0.33	1.06	0.66	0.26	1.37	0.06

Intersection Summary

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

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

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

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	547	189	105	132	326	2558	168	284	1605	379
v/c Ratio	0.83	0.63	0.46	0.96	1.45	0.67	0.16	0.96	0.63	0.30
Control Delay	65.5	71.4	15.8	131.1	255.3	19.2	3.7	93.8	5.7	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	37.5	0.0	0.0	0.0	0.0
Total Delay	65.5	71.4	15.8	131.1	255.3	56.8	3.7	93.8	5.7	0.5
Queue Length 50th (ft)	249	89	0	122	~319	421	12	136	147	0
Queue Length 95th (ft)	306	128	53	#257	#517	495	45	m#164	m292	m1
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	760	1083	551	137	225	3843	1039	297	2559	1269
Starvation Cap Reductn	0	0	0	0	0	1469	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.17	0.19	0.96	1.45	1.08	0.16	0.96	0.63	0.30

Intersection Summary

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

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	168	82	32	82	60	2636	1696	207
v/c Ratio	0.70	0.29	0.26	0.40	0.39	0.60	0.82	0.21
Control Delay	60.6	15.0	53.3	11.4	53.9	10.6	26.3	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.8	46.1	0.0
Total Delay	60.6	15.0	53.3	11.4	53.9	11.5	72.4	8.1
Queue Length 50th (ft)	114	7	22	0	41	275	533	34
Queue Length 95th (ft)	183	50	53	31	82	356	#809	87
Internal Link Dist (ft)		220	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	289	324	297	348	155	4414	2062	966
Starvation Cap Reductn	0	0	0	0	0	1331	516	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.25	0.11	0.24	0.39	0.86	1.10	0.21

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	223	60	527	168	109	16	321	2457	201	109	1571	114
v/c Ratio	1.14	0.13	0.93	0.79	0.30	0.04	1.13	0.99	0.24	0.96	1.10	0.16
Control Delay	161.9	42.5	53.3	91.9	50.5	0.1	146.2	52.6	10.8	140.0	95.3	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0
Total Delay	161.9	42.5	53.3	91.9	50.5	0.1	146.2	52.6	10.8	140.0	97.7	2.3
Queue Length 50th (ft)	~255	44	291	83	87	0	~364	~914	46	106	~917	0
Queue Length 95th (ft)	#438	83	#496	#150	145	0	#575	#1032	102	#243	#1088	22
Internal Link Dist (ft)		2122			372			324			363	
Turn Bay Length (ft)	130		75	265		150	150		45	220		200
Base Capacity (vph)	196	548	635	213	466	510	284	2480	830	114	1432	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	376	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.11	0.83	0.79	0.23	0.03	1.13	0.99	0.24	0.96	1.49	0.16

Intersection Summary

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Queue shown is maximum after two cycles.

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

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	300	184	63	2563	2231
v/c Ratio	0.61	0.51	0.42	0.96	0.69
Control Delay	43.9	14.7	50.7	23.0	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	14.7	50.7	23.0	13.3
Queue Length 50th (ft)	88	16	36	597	309
Queue Length 95th (ft)	130	77	80	#1027	414
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	683	439	171	2660	3241
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.44	0.42	0.37	0.96	0.69

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	355	344	672	113	484	522	2220	349	1720	242
v/c Ratio	1.38	0.41	1.14	1.01	0.79	0.89	1.48	1.43	0.86	0.35
Control Delay	236.2	48.0	112.0	153.1	52.6	77.1	250.0	258.7	45.5	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	236.2	48.0	112.0	153.1	52.6	77.1	250.0	258.7	45.5	13.6
Queue Length 50th (ft)	~442	145	~532	~110	173	251	~1522	~445	542	60
Queue Length 95th (ft)	#644	194	#779	#243	240	#345	#1653	#646	608	131
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	258	846	588	112	614	591	1504	244	2007	689
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.38	0.41	1.14	1.01	0.79	0.88	1.48	1.43	0.86	0.35

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	341	418	258	60	170	1390	49	560	27
v/c Ratio	1.18	0.54	1.25	0.11	0.77	1.36	0.75	0.68	0.04
Control Delay	155.2	6.1	187.1	4.7	83.5	198.0	126.5	38.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	155.2	6.1	187.1	4.7	83.5	198.0	126.5	38.0	0.1
Queue Length 50th (ft)	~402	0	~316	0	162	~1802	48	426	0
Queue Length 95th (ft)	#605	83	#498	23	242	#2072	#127	596	0
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	289	779	207	525	275	1021	65	826	650
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.18	0.54	1.25	0.11	0.62	1.36	0.75	0.68	0.04

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	64	308	512	525	314	53	814	894	202	910
v/c Ratio	0.30	0.71	1.06	1.08	0.52	0.50	0.65	1.08	1.12	0.62
Control Delay	58.8	65.3	106.6	110.9	16.8	80.9	40.6	80.1	157.3	35.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.8	65.3	106.6	110.9	16.8	80.9	40.6	80.1	157.3	35.5
Queue Length 50th (ft)	54	136	~536	~557	70	47	323	~655	~209	350
Queue Length 95th (ft)	101	188	#812	#836	173	97	416	#950	#389	450
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	348	692	481	486	605	116	1258	825	181	1462
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.45	1.06	1.08	0.52	0.46	0.65	1.08	1.12	0.62

Intersection Summary

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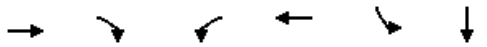
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	333	1214	36	1141	536	57	37	265	266	260
v/c Ratio	0.97	0.68	0.41	1.01	0.81	0.44	0.26	0.70	0.69	0.46
Control Delay	83.0	23.9	62.9	64.0	26.1	58.6	36.4	45.9	45.7	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.0	23.9	62.9	64.0	26.1	58.6	36.4	45.9	45.7	6.7
Queue Length 50th (ft)	216	331	23	~396	153	36	13	165	166	0
Queue Length 95th (ft)	#437	479	#61	#614	#380	83	48	254	255	60
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	345	1779	88	1134	663	129	141	533	537	681
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.68	0.41	1.01	0.81	0.44	0.26	0.50	0.50	0.38

Intersection Summary

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

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



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	1184	563	674	1426	74	352
v/c Ratio	0.97	0.71	1.00	0.54	0.24	1.02
Control Delay	64.5	16.5	77.4	7.5	52.6	94.7
Queue Delay	0.0	0.0	25.4	0.8	0.0	0.0
Total Delay	64.5	16.5	102.8	8.4	52.6	94.7
Queue Length 50th (ft)	557	129	610	240	59	~264
Queue Length 95th (ft)	#708	277	#878	283	108	#468
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1222	793	675	2650	308	346
Starvation Cap Reductn	0	0	49	830	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.71	1.08	0.78	0.24	1.02

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	337	962	1685	147	382	367	360
v/c Ratio	1.03	0.39	1.02	0.18	1.02	0.86	0.76
Control Delay	99.3	7.4	53.8	4.8	92.4	46.6	31.0
Queue Delay	0.0	0.0	32.5	0.0	0.0	0.0	0.0
Total Delay	99.3	7.4	86.3	4.8	92.4	46.6	31.0
Queue Length 50th (ft)	~231	123	~572	8	~273	175	123
Queue Length 95th (ft)	#403	156	#738	42	#465	#356	#266
Internal Link Dist (ft)		595	411			642	
Turn Bay Length (ft)	170				455		455
Base Capacity (vph)	327	2444	1658	807	373	426	472
Starvation Cap Reductn	0	0	253	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.39	1.20	0.18	1.02	0.86	0.76

Intersection Summary

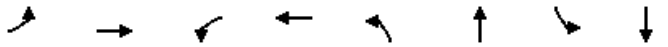
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	60	1539	60	1582	275	60
v/c Ratio	0.28	0.69	0.30	0.71	0.61	0.13
Control Delay	26.2	14.8	27.2	16.9	22.8	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	14.8	27.2	16.9	22.8	1.8
Queue Length 50th (ft)	17	134	18	156	75	0
Queue Length 95th (ft)	51	#255	51	#288	135	8
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	217	2242	203	2242	732	711
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.69	0.30	0.71	0.38	0.08

Intersection Summary

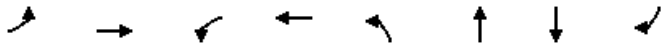
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	489	179	326	54	892	190	408
v/c Ratio	0.56	0.97	0.87	0.53	0.38	0.90	0.89	0.32
Control Delay	52.5	62.2	74.6	23.7	42.8	37.6	75.7	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	62.2	74.6	23.7	42.8	37.6	75.7	17.6
Queue Length 50th (ft)	37	231	89	121	26	192	95	69
Queue Length 95th (ft)	#90	#424	#202	203	61	#305	#212	108
Internal Link Dist (ft)		705		2122		773		773
Turn Bay Length (ft)	200		200		200		200	
Base Capacity (vph)	139	506	205	620	148	990	214	1256
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.97	0.87	0.53	0.36	0.90	0.89	0.32

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	185	1027	27	1152	130	43	257	243
v/c Ratio	0.92	0.43	0.18	0.65	0.38	0.13	1.24	0.63
Control Delay	82.8	14.7	35.7	21.2	26.4	9.2	167.0	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.8	14.7	35.7	21.2	26.4	9.2	167.0	13.9
Queue Length 50th (ft)	75	75	10	131	48	2	~116	0
Queue Length 95th (ft)	#253	213	40	259	89	23	#331	#93
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	201	2413	151	1977	863	807	208	386
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.43	0.18	0.58	0.15	0.05	1.24	0.63

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT
Lane Group Flow (vph)	5	500	656	198	380	1276	365
v/c Ratio	0.08	1.18	0.92	1.22	0.60	1.30	0.35
Control Delay	68.2	149.7	35.7	193.8	43.0	173.1	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	149.7	35.7	193.8	43.0	173.1	2.4
Queue Length 50th (ft)	5	~547	221	~222	278	~1492	2
Queue Length 95th (ft)	20	#769	#477	#385	431	#1757	46
Internal Link Dist (ft)		684			870		8961
Turn Bay Length (ft)	250		520	360			
Base Capacity (vph)	64	423	713	162	632	978	1039
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	1.18	0.92	1.22	0.60	1.30	0.35

Intersection Summary

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

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

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	322	2150	258	1097
v/c Ratio	0.86	0.97	0.87	0.39
Control Delay	39.2	38.1	79.9	3.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	39.2	38.1	79.9	3.6
Queue Length 50th (ft)	77	~951	209	101
Queue Length 95th (ft)	186	#1138	#388	153
Internal Link Dist (ft)	845	10454		1460
Turn Bay Length (ft)	1450		100	
Base Capacity (vph)	430	2210	298	2847
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.75	0.97	0.87	0.39

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	393	208	106	129	528	17	208	146
v/c Ratio	0.82	0.38	0.45	0.53	0.67	0.14	0.39	0.25
Control Delay	43.8	8.2	36.0	41.1	25.2	40.1	28.9	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	8.2	36.0	41.1	25.2	40.1	28.9	3.7
Queue Length 50th (ft)	183	10	44	60	193	8	88	0
Queue Length 95th (ft)	#361	62	91	118	#443	29	164	28
Internal Link Dist (ft)	422		500		2517		526	
Turn Bay Length (ft)		30		150		140		115
Base Capacity (vph)	515	580	446	310	791	123	535	587
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.36	0.24	0.42	0.67	0.14	0.39	0.25

Intersection Summary

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

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	193	477	295	108
v/c Ratio	0.52	0.67	0.72	0.08
Control Delay	10.4	20.9	31.8	3.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.4	20.9	31.8	3.1
Queue Length 50th (ft)	3	118	83	7
Queue Length 95th (ft)	46	#260	#192	24
Internal Link Dist (ft)	429	6529		184
Turn Bay Length (ft)	495		85	
Base Capacity (vph)	658	713	429	1322
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.29	0.67	0.69	0.08

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	93	105	346	142	74	321	414	309	37	278
v/c Ratio	0.38	0.43	0.67	0.52	0.26	0.74	0.53	0.38	0.33	0.46
Control Delay	31.9	33.1	10.7	34.6	22.9	39.4	19.8	3.9	42.8	26.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	33.1	10.7	34.6	22.9	39.4	19.8	3.9	42.8	26.3
Queue Length 50th (ft)	32	36	0	49	17	110	127	0	14	48
Queue Length 95th (ft)	77	85	45	110	53	#287	229	33	46	85
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	736	734	867	787	763	431	952	912	113	1118
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.14	0.40	0.18	0.10	0.74	0.43	0.34	0.33	0.25

Intersection Summary

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

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	39	114	313	23	625	136	460	534
v/c Ratio	0.16	0.51	0.41	0.17	0.83	0.20	0.82	0.39
Control Delay	25.4	41.0	9.4	41.8	34.3	6.7	40.3	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	41.0	9.4	41.8	34.3	6.7	40.3	7.2
Queue Length 50th (ft)	13	56	57	12	286	8	222	73
Queue Length 95th (ft)	39	105	105	36	#504	44	#407	219
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	453	381	844	145	920	790	672	1384
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.30	0.37	0.16	0.68	0.17	0.68	0.39

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	112	51	56	135	309	792	34	185	596
v/c Ratio	1.30	0.09	0.28	0.60	0.84	0.57	0.29	0.48	0.74
Control Delay	233.6	0.3	40.6	41.2	55.8	22.8	48.3	34.8	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	233.6	0.3	40.6	41.2	55.8	22.8	48.3	34.8	9.0
Queue Length 50th (ft)	~87	0	30	58	171	180	19	90	0
Queue Length 95th (ft)	#201	0	66	115	#325	260	51	161	89
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	86	543	379	401	409	1501	133	479	858
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.30	0.09	0.15	0.34	0.76	0.53	0.26	0.39	0.69

Intersection Summary

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

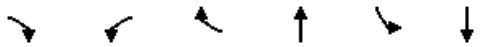
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	234	239	516	181	37	149	761	532	43	777	43
v/c Ratio	0.47	0.56	0.51	0.92	0.31	0.06	0.90	0.60	0.49	0.40	0.78	0.06
Control Delay	46.0	34.7	14.8	60.0	25.7	0.2	90.7	25.8	5.7	51.4	35.0	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.0	34.7	14.8	60.0	25.7	0.2	90.7	25.8	5.7	51.4	35.0	0.8
Queue Length 50th (ft)	43	111	37	142	78	0	81	184	44	23	199	0
Queue Length 95th (ft)	92	182	103	#256	134	0	#205	267	130	58	#287	5
Internal Link Dist (ft)		429			1915			582			6350	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	209	540	561	561	626	628	165	1273	1086	108	1034	776
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.43	0.43	0.92	0.29	0.06	0.90	0.60	0.49	0.40	0.75	0.06

Intersection Summary

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

7: Sierra College Blvd & Brace Rd



Lane Group	EBR	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	281	120	83	1597	245	1256
v/c Ratio	0.80	0.46	0.29	0.86	0.88	0.34
Control Delay	36.1	39.9	11.0	23.8	67.2	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.1	39.9	11.0	23.8	67.2	4.1
Queue Length 50th (ft)	76	62	0	391	135	72
Queue Length 95th (ft)	#191	115	39	#530	#264	93
Internal Link Dist (ft)				226		582
Turn Bay Length (ft)		100			170	
Base Capacity (vph)	398	319	327	1907	311	3990
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.38	0.25	0.84	0.79	0.31

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	292	21	219	146	31	68	219	1256	104	1177	198
v/c Ratio	0.74	0.08	0.38	0.57	0.21	0.27	0.72	0.61	0.54	0.68	0.30
Control Delay	46.2	36.5	7.7	44.9	43.0	2.6	50.7	21.9	50.0	26.8	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	46.2	36.5	7.7	44.9	43.0	2.6	50.7	22.0	50.0	26.8	4.5
Queue Length 50th (ft)	158	10	0	79	17	0	120	200	57	204	0
Queue Length 95th (ft)	#301	34	36	138	45	2	#244	257	113	260	44
Internal Link Dist (ft)		707			453			403		597	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	395	677	1171	366	619	654	305	2271	209	2006	741
Starvation Cap Reductn	0	0	0	0	0	0	0	111	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.03	0.19	0.40	0.05	0.10	0.72	0.58	0.50	0.59	0.27

Intersection Summary

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

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	83	302	1135	184	160	417	1333	250	1490	26
v/c Ratio	1.12	0.61	0.93	0.38	0.34	0.98	0.47	0.25	1.05	0.05
Control Delay	196.3	28.9	54.7	38.6	15.3	84.6	20.0	2.9	81.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.1	0.0
Total Delay	196.3	28.9	54.7	38.6	15.3	84.6	20.0	2.9	101.5	0.2
Queue Length 50th (ft)	~80	114	465	126	36	~375	291	15	~498	0
Queue Length 95th (ft)	#190	223	547	193	96	m#599	m336	m27	#595	0
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	74	494	1304	523	503	426	2851	988	1425	534
Starvation Cap Reductn	0	0	0	0	0	0	0	0	65	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.61	0.87	0.35	0.32	0.98	0.47	0.25	1.10	0.05

Intersection Summary

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

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

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

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	577	294	88	129	356	1392	103	448	1026	242
v/c Ratio	0.71	0.75	0.32	0.80	1.01	0.47	0.12	0.79	0.43	0.21
Control Delay	50.4	68.0	6.8	90.7	88.5	24.3	1.4	50.5	4.9	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Total Delay	50.4	68.0	6.8	90.7	88.5	24.9	1.4	50.5	4.9	0.5
Queue Length 50th (ft)	228	128	0	107	215	245	0	185	66	0
Queue Length 95th (ft)	277	172	26	#194	#443	277	14	m212	m178	m8
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	867	1143	580	186	364	2941	851	597	2388	1135
Starvation Cap Reductn	0	0	0	0	0	1019	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.26	0.15	0.69	0.98	0.72	0.12	0.75	0.43	0.21

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	177	73	25	104	48	1307	1229	209
v/c Ratio	0.65	0.24	0.21	0.44	0.31	0.32	0.63	0.23
Control Delay	46.5	13.3	42.3	11.1	42.9	8.5	20.0	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Total Delay	46.5	13.3	42.3	11.1	42.9	8.5	20.9	7.6
Queue Length 50th (ft)	95	6	14	0	26	93	282	25
Queue Length 95th (ft)	155	42	38	34	59	137	#478	78
Internal Link Dist (ft)		235	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	354	374	307	403	156	4066	1940	925
Starvation Cap Reductn	0	0	0	0	0	0	393	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.20	0.08	0.26	0.31	0.32	0.79	0.23

Intersection Summary

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

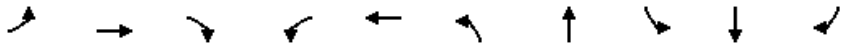
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	253	108	515	77	211	5	531	1084	180	119	871	263
v/c Ratio	0.96	0.23	0.66	0.44	0.73	0.01	0.98	0.48	0.23	0.67	0.97	0.50
Control Delay	103.0	41.8	7.6	71.7	69.9	0.0	81.7	28.4	11.0	77.1	72.7	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.4	0.2
Total Delay	103.0	41.8	7.6	71.7	69.9	0.0	81.7	28.4	11.0	77.1	114.2	20.8
Queue Length 50th (ft)	224	77	0	34	180	0	464	243	34	102	401	73
Queue Length 95th (ft)	#427	129	94	64	267	0	#759	332	95	173	#585	172
Internal Link Dist (ft)		2096			372			407			363	
Turn Bay Length (ft)	130		75	265		150	150		45	220		200
Base Capacity (vph)	264	666	901	181	490	528	541	2272	777	237	902	522
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	115	24
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.16	0.57	0.43	0.43	0.01	0.98	0.48	0.23	0.50	1.11	0.53

Intersection Summary

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

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	98	54	38	1707	1603
v/c Ratio	0.21	0.20	0.21	0.66	0.49
Control Delay	20.7	8.6	23.9	6.8	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.7	8.6	23.9	6.8	7.8
Queue Length 50th (ft)	14	0	11	134	65
Queue Length 95th (ft)	28	23	32	221	176
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	1246	626	182	2604	3296
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.08	0.09	0.21	0.66	0.49

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	182	297	333	83	365	276	1380	240	1109	130
v/c Ratio	0.71	0.40	0.61	0.83	0.67	0.62	0.95	0.96	0.51	0.18
Control Delay	59.0	37.5	12.6	105.7	28.0	51.1	45.4	95.2	24.7	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	37.5	12.6	105.7	28.0	51.1	45.4	95.2	24.7	3.8
Queue Length 50th (ft)	119	92	32	57	60	92	468	165	204	0
Queue Length 95th (ft)	201	132	116	#160	113	146	#714	#354	281	33
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	333	1034	652	100	673	476	1456	250	2154	725
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.29	0.51	0.83	0.54	0.58	0.95	0.96	0.51	0.18

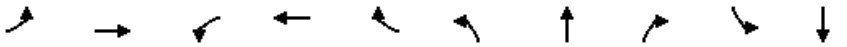
Intersection Summary

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

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	192	159	82	27	154	736	27	560	99
v/c Ratio	0.62	0.34	0.25	0.06	0.61	0.73	0.21	0.75	0.14
Control Delay	32.6	6.2	23.5	0.2	41.1	19.5	36.1	25.1	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	6.2	23.5	0.2	41.1	19.5	36.1	25.1	2.2
Queue Length 50th (ft)	74	0	29	0	62	161	11	183	0
Queue Length 95th (ft)	136	40	63	0	#155	#547	37	#368	17
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	561	721	591	735	270	1039	131	879	801
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.22	0.14	0.04	0.57	0.71	0.21	0.64	0.12

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	59	202	284	290	154	16	612	553	165	580
v/c Ratio	0.28	0.46	0.67	0.68	0.30	0.18	0.59	0.74	0.94	0.40
Control Delay	39.0	32.4	36.4	36.9	6.2	46.7	27.9	14.4	95.7	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	32.4	36.4	36.9	6.2	46.7	27.9	14.4	95.7	19.8
Queue Length 50th (ft)	29	43	140	143	0	8	138	58	87	98
Queue Length 95th (ft)	70	83	240	245	44	31	223	208	#243	195
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	642	1257	604	606	661	91	1225	814	176	1483
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.16	0.47	0.48	0.23	0.18	0.50	0.68	0.94	0.39

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	335	804	27	537	548	53	48	222	225	218
v/c Ratio	1.04	0.49	0.22	0.56	0.68	0.34	0.28	0.60	0.60	0.43
Control Delay	96.9	18.5	44.2	28.6	7.4	45.0	27.1	35.9	36.0	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.9	18.5	44.2	28.6	7.4	45.0	27.1	35.9	36.0	6.7
Queue Length 50th (ft)	~188	127	13	122	0	26	10	107	108	0
Queue Length 95th (ft)	#419	263	43	195	86	69	47	189	191	52
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	323	1659	126	1205	873	157	172	678	682	754
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.48	0.21	0.45	0.63	0.34	0.28	0.33	0.33	0.29

Intersection Summary

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

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

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	763	495	468	942	47	205
v/c Ratio	0.51	0.53	0.84	0.33	0.28	0.70
Control Delay	23.1	4.8	41.7	3.1	40.3	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	4.8	41.7	3.1	40.3	23.9
Queue Length 50th (ft)	161	0	243	50	26	26
Queue Length 95th (ft)	280	77	323	109	54	89
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1485	941	598	2837	443	523
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.53	0.78	0.33	0.11	0.39

Intersection Summary

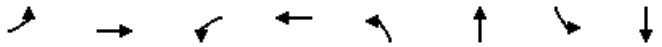
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	228	628	950	111	346	334	315
v/c Ratio	0.78	0.30	0.77	0.17	0.80	0.76	0.55
Control Delay	42.8	6.5	21.8	4.2	35.4	28.0	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	6.5	21.8	4.2	35.4	28.0	8.9
Queue Length 50th (ft)	72	48	145	0	108	85	16
Queue Length 95th (ft)	#164	73	#237	26	#230	#207	75
Internal Link Dist (ft)		595	411			642	
Turn Bay Length (ft)	170				455		455
Base Capacity (vph)	308	2079	1240	643	451	458	581
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.30	0.77	0.17	0.77	0.73	0.54

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	65	995	43	772	266	60
v/c Ratio	0.27	0.44	0.19	0.38	0.55	0.12
Control Delay	24.3	9.8	23.9	12.2	19.9	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	9.8	23.9	12.2	19.9	1.7
Queue Length 50th (ft)	16	42	11	59	62	0
Queue Length 95th (ft)	52	119	39	103	128	9
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	245	2452	228	2296	878	842
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.41	0.19	0.34	0.30	0.07

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	152	375	228	277	43	945	158	456
v/c Ratio	0.71	0.95	0.90	0.63	0.36	0.96	0.45	0.31
Control Delay	57.4	70.6	76.0	36.4	48.2	47.4	36.3	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	70.6	76.0	36.4	48.2	47.4	36.3	16.0
Queue Length 50th (ft)	84	203	129	133	24	219	80	79
Queue Length 95th (ft)	#166	#378	#263	218	57	#352	140	118
Internal Link Dist (ft)		705		2096		773		773
Turn Bay Length (ft)	200		200		200		200	
Base Capacity (vph)	226	393	253	437	126	982	354	1453
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.95	0.90	0.63	0.34	0.96	0.45	0.31

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	32	805	26	590	100	31	61	59
v/c Ratio	0.16	0.34	0.13	0.25	0.26	0.09	0.28	0.16
Control Delay	31.8	14.4	31.7	14.2	20.4	10.0	22.0	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	14.4	31.7	14.2	20.4	10.0	22.0	0.9
Queue Length 50th (ft)	8	51	6	36	22	1	7	0
Queue Length 95th (ft)	45	163	39	120	71	20	56	0
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	199	2897	199	2921	1193	1045	245	401
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.28	0.13	0.20	0.08	0.03	0.25	0.15

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	6	420	765	420	185	1247	450	6	25
v/c Ratio	0.12	1.25	1.00	1.47	0.28	1.38	0.45	0.10	0.33
Control Delay	75.2	181.1	45.6	273.4	35.5	208.7	3.5	73.8	45.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.2	181.1	45.6	273.4	35.5	208.7	3.5	73.8	45.0
Queue Length 50th (ft)	6	~519	~239	~571	126	~1637	6	6	6
Queue Length 95th (ft)	21	#628	#349	#680	187	#1625	32	21	34
Internal Link Dist (ft)		684			870		8220		1542
Turn Bay Length (ft)	250		520	360				200	
Base Capacity (vph)	52	337	767	285	656	903	1007	62	76
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	1.25	1.00	1.47	0.28	1.38	0.45	0.10	0.33

Intersection Summary

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

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

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	312	1208	188	995
v/c Ratio	0.66	0.77	0.67	0.41
Control Delay	12.1	18.4	38.3	4.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.1	18.4	38.3	4.6
Queue Length 50th (ft)	10	166	62	49
Queue Length 95th (ft)	69	297	#165	122
Internal Link Dist (ft)	845	10454		2201
Turn Bay Length (ft)	1450		100	
Base Capacity (vph)	719	1716	297	2615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	0.70	0.63	0.38

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	615	328	139	180	549	25	303	172
v/c Ratio	0.96	0.49	0.65	0.80	0.85	0.31	0.69	0.36
Control Delay	63.4	19.6	61.1	75.6	49.4	65.5	49.9	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	19.6	61.1	75.6	49.4	65.5	49.9	12.7
Queue Length 50th (ft)	447	108	97	132	391	18	208	21
Queue Length 95th (ft)	361	95	105	141	326	33	199	25
Internal Link Dist (ft)	422		500		2517		526	
Turn Bay Length (ft)		30		150		140		115
Base Capacity (vph)	643	665	283	237	646	80	440	474
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.49	0.49	0.76	0.85	0.31	0.69	0.36

Intersection Summary

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	119	321	266	158
v/c Ratio	0.37	0.43	0.70	0.12
Control Delay	9.0	13.7	31.0	3.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.0	13.7	31.0	3.2
Queue Length 50th (ft)	1	63	68	10
Queue Length 95th (ft)	35	132	#170	30
Internal Link Dist (ft)	429	6529		184
Turn Bay Length (ft)	495		85	
Base Capacity (vph)	688	749	386	1369
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	0.43	0.69	0.12

Intersection Summary

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

Cumulative Conditions – Long Term Plus Project

Project Driveway Option A

Cumulative Long-Term Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	200	970	350	280	490	-	65	215	150	95	585	-
2	Taylor Road & Horseshoe Bar Road	100	400	125	190	380	-	-	115	-	-	160	160
3	Horseshoe Bar Road & I-80 Westbound Ramp	85	680	-	160	450	95	-	935	250	275	95	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	2,350	100	-	685	-	-	-	-	-	1,080	-
5	Barton Road & Brace Road	-	2,895	-	-	-	-	-	1,980	-	-	560	-
6	Sierra College Boulevard & Taylor Road	210	550	550	210	1,500	450	150	900	250	215	2,060	215
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	60	230	150
9	Sierra College Boulevard & I-80 WB Ramps	200	1,530	325	-	370	150	530	-	530	740	1,320	740
10	Sierra College Boulevard & I-80 EB Ramps	-	710	280	250	1,530	500	1,315	1,315	205	345	-	330
11	Sierra College Boulevard & Schriber Way	90	395	-	-	300	100	200	200	-	-	415	415
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	150	1,675	45	220	710	200	130	2,000	75	265	745	150
13	Sierra College Boulevard & Stadium Dwy	200	1,580	-	-	1,690	-	200	-	60	-	-	-
14	Sierra College Boulevard & Rocklin Road	245	650	-	245	1,575	175	240	925	925	315	1,325	-
15	Pacific Street & Dominguez Road/Delmar Avenue	210	1,860	-	200	850	150	-	700	315	-	1,935	140
16	Pacific Street & Rocklin Road	265	420	110	230	410	-	130	285	-	250	330	330
17	Granite Drive & Rocklin Road	100	140	-	325	625	625	225	675	-	135	650	150
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	635	1,165	-	-	580	280	300	555	-
19	I-80 Eastbound Ramps & Rocklin Road	455	1,115	455	-	-	-	170	520	-	-	370	-
20	Aguilar Road & Rocklin Road	320	-	320	-	-	-	75	400	-	85	1,260	-
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
22	Dominguez Road & Granite Driive	200	1,390	-	200	730	-	200	370	-	200	2,000	-
23	El Don Drive & Rocklin Road	140	530	-	-	580	95	410	1,260	-	265	1,430	-
24	Sierra College Boulevard & Project Driveway	160	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	900	900	-	200	800	-	250	1900	520	360	2500	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	4,500	-	100	1,300	-	-	-	-	1,450	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	105	1,100	-	105	3,100	-	-	85	30	-	910	30
29	Taylor Road & English Colony Way-Rock Springs Road	150	1,900	-	140	350	115	-	560	30	-	940	-
30	Taylor Road & Penryn Road (North	85	170	-	-	555	-	55	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	2,600	-	85	180	-	-	-	-	495	-	-
32	Taylor Road & Del Oro High School North Lot	-	185	-	70	1,600	-	-	-	-	200	-	45
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Drop Off	150	300	-	90	190	-	-	50	-	-	75	-
34	Taylor Road & Del Oro High School South Lot	-	1,200	-	150	300	-	-	-	-	65	-	65
35	Taylor Road & Rippey Road	140	465	-	-	610	-	3,500	-	-	-	-	-
36	Taylor Road & Webb Street	0	150	0	0	0	0	0	0	0	150	0	0
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

Cumulative-Long TermP AM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#419**	530	35	#141	**#530**	-	**206**	170	102	**300**	#485	-
2	Taylor Road & Horseshoe Bar Road	-	**#443**	-	**#495**	289	-	-	75	-	-	19	**169**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**#308**	183	-	49	97	**108**	-	71	7	46	81	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	3	-	-	-	-	-	685	-
5	Barton Road & Brace Road	-	20	-	-	-	-	-	-	-	-	8	-
6	Sierra College Boulevard & Taylor Road	**#440**	284	28	113	#1022	128	**#198**	171	-	**#391**	#561	5
7	Sierra College Boulevard & Brace Road	-	138	-	#74	288	-	-	-	-	**#212**	-	38
8	Sierra College Boulevard & Granite Drive	**438**	**435**	41	134	**#976**	107	125	30	38	**231**	60	-
9	Sierra College Boulevard & I-80 WB Ramps	m#152	130	-	-	**#980**	8	20	-	35	429	226	196
10	Sierra College Boulevard & I-80 EB Ramps	-	300	-	m141	#1356	m27	285	73	**#574**	42	-	-
11	Sierra College Boulevard & Schriber Way	**115**	119	-	-	**#1619**	90	**#213**	55	-	-	49	53
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	**#551**	243	28	104	**#1445**	154	**#293**	64	**138**	83	173	-
13	Sierra College Boulevard & Stadium Dwy	**#275**	128	-	-	682	-	39	-	20	-	-	-
14	Sierra College Boulevard & Rocklin Road	**#334**	#598	-	**#254**	345	97	#164	250	72	**#318**	243	-
15	Pacific Street & Dominguez Road/Delmar Avenue	**#390**	358	-	90	#736	34	-	77	47	-	#525	12
16	Pacific Street & Rocklin Road	100	373	**#904**	**#488**	330	-	61	81	-	**#746**	**#773**	117
17	Granite Drive & Rocklin Road	37	29	-	184	183	47	#202	#471	-	31	#571	**251**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	91	#379	-	-	#374	64	**#353**	268	-
19	I-80 Eastbound Ramps & Rocklin Road	**476**	#883	**#811**	-	-	-	**#303**	304	-	-	**#556**	37
20	Aguilar Road & Rocklin Road	#270	-	29	-	-	-	62	**#503**	-	45	114	-
21	Sierra College Boulevard & Driveway South of Brace Road	20	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	#90	42	-	#133	158	-	#155	192	-	**#207**	#452	-
23	El Don Drive & Rocklin Road	**189**	35	-	-	#76	-	**#965**	344	-	28	228	-
24	Sierra College Boulevard & Project Driveway	#121	110	17	63	**385**	-	24	-	-	#80	-	-
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	#761	-	-	21	-	-	-	258	**#924**	**#745**	316	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	154	-	**#215**	379	-	-	-	-	56	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	-	99	-	15	460	-	-	11	-	-	116	**63**
29	Taylor Road & English Colony Way-Rock Springs Road	**#205**	165	-	25	**#668**	**136**	-	118	**36**	-	184	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	5	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	172	-	**148**	**303**	-	-	-	-	65	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	35	-	-	-	-	-	**280**	-	13
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dr	-	-	-	15	-	-	-	-	-	-	**900**	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	20	-	-	-	-	-	**333**	-	18
35	Taylor Road & Rippey Road	10	-	-	-	-	-	23	-	-	-	-	-
36	Taylor Road & Webb Street	13	-	-	3	-	-	-	-	220	-	85	-
37	Project Driveway East & Brace Road	-	0	-	-	-	-	-	-	-	0	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Long TermP PM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#544**	381	58	103	189	-	**112**	**277**	149	**119**	135	-
2	Taylor Road & Horseshoe Bar Road	49	**#1040**	59	**#788**	360	-	-	96	-	-	128	**373**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**207**	356	-	69	186	**100**	-	#196	6	97	92	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	15	-	-	-	-	-	**2035**	-
5	Barton Road & Brace Road	-	75	-	-	-	-	-	-	-	-	5	-
6	Sierra College Boulevard & Taylor Road	**#266**	**#874**	309	#88	482	14	**190**	#500	200	**#380**	242	1
7	Sierra College Boulevard & Brace Road	-	**#842**	140	**#525**	280	-	-	-	**#768**	**#224**	-	46
8	Sierra College Boulevard & Granite Drive	**285**	**#1604**	27	153	**#829**	146	**#699**	51	46	**177**	63	57
9	Sierra College Boulevard & I-80 WB Ramps	**m#523**	m599	m42	-	**#1091**	-	#88	-	59	#628	283	208
10	Sierra College Boulevard & I-80 EB Ramps	-	504	45	m#153	m294	-	#393	128	53	#257	-	**#517**
11	Sierra College Boulevard & Schriber Way	82	363	-	-	**#833**	87	183	50	-	-	53	31
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	**#575**	#1056	**102**	**#243**	**#1122**	22	**#438**	83	**#498**	#150	145	-
13	Sierra College Boulevard & Stadium Dwy	80	#1048	-	-	425	-	130	-	**77**	-	-	-
14	Sierra College Boulevard & Rocklin Road	**#345**	**#1675**	-	**#656**	620	136	**#657**	194	#779	#243	241	-
15	Pacific Street & Dominguez Road/Delmar Avenue	**242**	**#2118**	-	#127	632	-	-	#605	**93**	-	#498	23
16	Pacific Street & Rocklin Road	97	**423**	**#964**	**#389**	**465**	-	114	188	-	**#823**	**#840**	173
17	Granite Drive & Rocklin Road	83	48	-	254	255	61	**#452**	479	-	#61	#614	**#380**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	108	#468	-	-	**#708**	**277**	**#878**	283	-
19	I-80 Eastbound Ramps & Rocklin Road	**#465**	#356	#266	-	-	-	**#403**	156	-	-	**#738**	42
20	Aguilar Road & Rocklin Road	135	-	9	-	-	-	51	#255	-	53	#288	-
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	8	-	-	-
22	Dominguez Road & Granite Driive	61	#314	-	**#212**	112	-	#90	**#424**	-	**#202**	203	-
23	El Don Drive & Rocklin Road	89	23	-	-	#331	#93	#253	213	-	45	260	-
24	Sierra College Boulevard & Project Driveway	78	**#678**	80	**#240**	**449**	-	138	23	-	**#261**	58	-
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	**#1773**	48	-	-	-	-	20	#769	#487	**#393**	431	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	#1157	-	**#388**	156	-	-	-	-	#191	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	5	521	-	17	165	-	-	19	4	-	53	11
29	Taylor Road & English Colony Way-Rock Springs Road	120	#448	-	29	167	28	-	#361	**64**	-	91	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	#270	-	**#193**	25	-	-	-	-	47	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	23	-	-
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dr	-	-	-	-	-	-	-	-	-	-	13	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	3	-	-	-	-	-	50	-	8
35	Taylor Road & Rippey Road	3	-	-	-	-	-	5	-	-	-	-	-
36	Taylor Road & Webb Street	25	-	-	-	-	-	-	-	43	-	3	-
37	Project Driveway East & Brace Road	-	3	-	-	-	-	-	-	-	0	-	-

Notes:

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Cumulative-Long TermP SAT

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Taylor Road & King Road	**#309**	249	33	46	94	-	**78**	86	45	**117**	54	-
2	Taylor Road & Horseshoe Bar Road	36	**#569**	44	**#407**	250	-	-	39	-	-	105	**113**
3	Horseshoe Bar Road & I-80 Westbound Ramp	**#325**	260	-	51	161	89	-	#201	-	66	**115**	-
4	Horseshoe Bar Road & I-80 Eastbound Ramp	-	-	-	-	10	-	-	-	-	-	**1405**	-
5	Barton Road & Brace Road	-	228	-	-	-	-	-	-	-	-	8	-
6	Sierra College Boulevard & Taylor Road	**#267**	284	165	58	#330	5	92	182	139	**#291**	134	-
7	Sierra College Boulevard & Brace Road	-	231	29	**#223**	123	-	-	-	#164	**#118**	-	23
8	Sierra College Boulevard & Granite Drive	**266**	**#903**	49	148	**530**	142	**#410**	43	41	**192**	61	30
9	Sierra College Boulevard & I-80 WB Ramps	**m#596**	m393	m27	-	**#846**	-	#190	-	223	547	308	220
10	Sierra College Boulevard & I-80 EB Ramps	-	292	14	m198	m194	m14	345	172	26	#194	-	**#443**
11	Sierra College Boulevard & Schriber Way	59	145	-	-	**#516**	78	155	42	-	-	38	34
12	Sierra College Boulevard & Bass Pro Drive/Dominguez Road	**#759**	354	**95**	173	#645	182	**#427**	129	**94**	64	267	-
13	Sierra College Boulevard & Stadium Dwy	32	240	-	-	186	-	28	-	23	-	-	-
14	Sierra College Boulevard & Rocklin Road	146	**#749**	-	**#366**	293	41	216	132	118	#160	114	-
15	Pacific Street & Dominguez Road/Delmar Avenue	#155	#598	-	37	#435	17	-	136	40	-	63	-
16	Pacific Street & Rocklin Road	31	232	**228**	**#244**	211	-	90	83	-	**247**	249	44
17	Granite Drive & Rocklin Road	69	47	-	189	191	55	**#448**	263	-	43	195	**86**
18	I-80 Westbound Ramps & Rocklin Road	-	-	-	54	89	-	-	280	77	**323**	109	-
19	I-80 Eastbound Ramps & Rocklin Road	#230	#207	75	-	-	-	#164	73	-	-	#237	26
20	Aguilar Road & Rocklin Road	128	-	10	-	-	-	52	119	-	42	103	-
21	Sierra College Boulevard & Driveway South of Brace Road	5	-	-	-	-	-	-	-	-	-	-	-
22	Dominguez Road & Granite Driive	57	#368	-	140	126	-	#166	**#378**	-	**#263**	218	-
23	El Don Drive & Rocklin Road	71	22	-	-	56	-	45	164	-	46	121	-
24	Sierra College Boulevard & Project Driveway	#73	302	46	**#246**	266	-	97	2	-	**#221**	45	-
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	**#1658**	32	-	21	34	-	21	#628	#362	**#701**	187	-
27	Sierra College Boulevard/Sierra College Blvd & English Colony Way	-	#328	-	**#167**	129	-	-	-	-	72	-	-
28	Sierra College Boulevard/Sierra College Blvd & Delmar Avenue	3	144	-	58	154	-	-	14	2	-	39	2
29	Taylor Road & English Colony Way-Rock Springs Road	145	335	-	33	207	25	-	361	**97**	-	105	-
30	Taylor Road & Penryn Road (North	3	-	-	-	-	-	3	-	-	-	-	-
31	Taylor Road & Penryn Road (South)	-	140	-	**#171**	32	-	-	-	-	37	-	-
32	Taylor Road & Del Oro High School North Lot	-	-	-	-	-	-	-	-	-	3	-	-
33	Taylor Road & First Baptist Church Driveway/Del Oro High School Dr	-	-	-	3	-	-	-	-	-	-	43	-
34	Taylor Road & Del Oro High School South Lot	-	-	-	3	-	-	-	-	-	48	-	8
35	Taylor Road & Rippey Road	5	-	-	-	-	-	5	-	-	-	-	-
36	Taylor Road & Webb Street	15	-	-	-	-	-	-	-	93	-	155	-
37	Project Driveway East & Brace Road	-	5	-	-	-	-	-	-	-	3	-	-

Notes:

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

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

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Cumulative-Long TermP AM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	0.78%	0.62%	1.04%	0.00%	0.49%	0.00%	0.00%	0.00%	0.65%	0.42%	0.00%	0.00%
2	-	1.44%	0.00%	0.00%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	-	0.00%	0.00%	0.00%	0.00%	-	-	-	-	0.00%	-	0.00%
5	2.17%	-	0.00%	-	-	-	-	1.16%	6.25%	0.00%	0.26%	-
6	3.08%	1.05%	3.30%	0.00%	0.47%	0.00%	0.00%	0.00%	8.54%	1.50%	0.00%	0.00%
7	-	2.21%	0.00%	0.00%	1.12%	0.00%	-	-	0.00%	0.00%	-	0.90%
8	0.00%	11.56%	0.00%	0.00%	5.90%	2.03%	4.11%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0.00%	5.26%	0.00%	-	5.27%	0.00%	0.00%	-	0.00%	0.00%	0.00%	15.42%
10	-	0.85%	0.00%	0.00%	0.50%	26.41%	8.35%	0.00%	0.00%	0.00%	-	0.00%
11	0.00%	0.99%	0.00%	-	0.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0.00%	1.05%	0.00%	0.00%	0.49%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	0.00%	0.82%	-	-	0.57%	0.00%	0.00%	-	0.00%	-	-	-
14	0.00%	0.70%	0.00%	0.66%	0.60%	0.65%	1.87%	0.00%	0.00%	0.00%	0.00%	0.34%
15	0.00%	2.40%	0.00%	0.00%	1.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	0.00%	0.57%	0.25%	0.00%	0.62%	16.67%	13.79%	0.00%	0.00%	0.27%	0.00%	0.00%
17	0.00%	0.00%	0.00%	0.00%	0.00%	1.55%	2.17%	0.00%	0.00%	0.00%	0.00%	0.00%
18	-	-	-	0.00%	-	0.00%	-	0.00%	0.00%	0.00%	0.00%	-
19	0.00%	0.00%	0.00%	-	-	-	0.00%	0.00%	-	-	0.00%	0.00%
20	0.00%	-	1.41%	-	-	-	0.00%	0.00%	0.00%	3.23%	0.00%	-
21	0.00%	2.15%	-	-	0.97%	0.00%	-	-	-	-	-	-
22	0.00%	3.23%	0.00%	0.00%	0.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
23	0.00%	0.00%	4.76%	0.00%	0.00%	0.00%	0.00%	0.08%	0.00%	9.09%	0.19%	0.00%
24	0.00%	-4.24%	100.00%	100.00%	-1.59%	0.00%	0.00%	-	0.00%	100.00%	-	100.00%
25	-	-	-	-	-	-	-	0.00%	-	-	0.39%	-
26	0.63%	-	1.16%	0.00%	-	0.00%	-	0.00%	0.31%	0.23%	0.00%	-
27	-	1.02%	9.09%	0.00%	0.32%	-	-	-	-	16.67%	-	0.00%
28	-	0.92%	9.09%	0.00%	0.34%	0.00%	0.00%	-	-	0.74%	0.00%	0.00%
29	0.79%	0.49%	0.00%	0.00%	0.16%	0.00%	0.00%	0.00%	0.86%	0.00%	0.00%	0.00%
30	0.00%	0.59%	-	-	0.21%	-	-	-	0.00%	-	-	-
31	-	0.76%	2.17%	0.00%	0.26%	-	-	-	-	1.96%	-	0.00%
32	-	1.08%	0.00%	0.00%	0.28%	-	-	-	-	0.00%	-	0.00%
33	0.00%	0.90%	0.00%	0.00%	0.30%	0.00%	-	-	0.00%	0.00%	-	0.00%
34	-	0.74%	0.00%	0.00%	0.29%	-	-	-	-	0.00%	-	0.00%
35	1.79%	0.28%	-	-	0.24%	-	0.00%	-	2.63%	-	-	-
36	1.16%	0.68%	0.00%	0.00%	0.55%	0.00%	-	-	0.45%	0.00%	-	0.00%
37	100.00%	-	100.00%	-	-	-	-	0.00%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

Cumulative Long TermP PM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	1.44%	2.53%	1.23%	0.00%	3.64%	0.00%	0.00%	0.00%	1.21%	4.76%	0.00%	0.00%
2	0.00%	3.08%	0.00%	0.00%	3.43%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	-	0.00%	0.00%	0.00%	0.00%	-	-	-	-	0.00%	-	0.00%
5	5.41%	-	0.00%	-	-	-	-	0.68%	3.23%	0.00%	2.17%	-
6	13.91%	1.34%	4.18%	0.00%	1.98%	0.00%	0.00%	0.00%	7.69%	4.62%	0.00%	0.00%
7	-	2.94%	0.00%	2.17%	4.30%	0.00%	-	-	0.00%	0.00%	0.00%	2.26%
8	0.00%	13.26%	0.00%	0.00%	16.17%	4.64%	2.12%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0.00%	6.76%	0.00%	-	13.49%	0.00%	0.00%	-	0.00%	0.00%	0.00%	38.78%
10	-	1.18%	0.00%	0.00%	1.93%	30.90%	16.67%	0.00%	0.00%	0.00%	-	0.00%
11	0.00%	1.21%	0.00%	-	1.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0.00%	1.27%	0.00%	0.00%	2.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	0.00%	1.18%	-	-	1.52%	0.00%	0.00%	-	0.00%	-	-	-
14	0.00%	0.96%	0.00%	1.22%	1.23%	2.60%	1.79%	0.00%	0.00%	0.00%	0.00%	1.87%
15	0.00%	1.90%	0.00%	0.00%	3.95%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	0.00%	1.29%	0.71%	0.00%	1.32%	26.83%	14.29%	0.00%	0.00%	0.72%	0.00%	0.00%
17	0.00%	0.00%	0.00%	0.00%	0.00%	3.47%	2.74%	0.00%	0.00%	0.00%	0.00%	0.00%
18	-	-	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%	0.00%	-
19	0.00%	0.00%	0.00%	-	-	-	0.00%	0.00%	-	-	0.00%	0.00%
20	0.00%	-	3.51%	-	-	-	0.00%	0.00%	0.00%	3.51%	0.00%	-
21	0.00%	2.50%	-	-	2.92%	0.00%	-	-	0.00%	-	-	-
22	0.00%	1.72%	0.00%	0.00%	3.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
23	0.00%	0.00%	10.26%	0.00%	0.00%	0.00%	0.00%	0.24%	0.00%	13.79%	0.20%	0.00%
24	0.00%	-4.18%	100.00%	100.00%	-4.95%	0.00%	0.00%	-	0.00%	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	1.29%	-
26	0.65%	-	1.13%	-	-	-	0.00%	0.00%	1.25%	2.06%	0.00%	-
27	-	0.80%	11.76%	0.00%	1.45%	-	-	-	-	11.76%	-	0.00%
28	0.00%	1.00%	0.52%	0.00%	1.28%	0.00%	0.00%	0.00%	0.00%	5.41%	0.00%	0.00%
29	1.71%	1.04%	0.00%	0.00%	2.12%	0.00%	0.00%	0.00%	1.07%	0.00%	0.00%	0.00%
30	0.00%	1.13%	-	-	1.71%	0.00%	-	-	0.00%	-	-	-
31	-	1.50%	7.41%	0.00%	5.94%	-	-	-	-	16.67%	-	0.00%
32	-	2.27%	0.00%	-	2.99%	-	-	-	-	0.00%	-	-
33	-	2.19%	0.00%	0.00%	2.47%	-	-	-	-	0.00%	-	0.00%
34	-	2.18%	0.00%	0.00%	2.47%	-	-	-	-	0.00%	-	0.00%
35	8.00%	1.60%	-	-	2.26%	0.00%	0.00%	-	6.45%	-	-	-
36	2.30%	1.79%	-	-	2.33%	0.00%	-	-	3.36%	-	-	0.00%
37	100.00%	-	100.00%	-	-	-	-	0.43%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

Cumulative Long TermP SAT

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	4.06%	5.37%	3.10%	0.00%	9.30%	0.00%	0.00%	0.00%	4.11%	6.50%	0.00%	0.00%
2	0.00%	7.72%	0.00%	0.00%	9.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	-	0.00%	0.00%	0.00%	0.00%	-	-	-	-	0.00%	-	0.00%
5	5.41%	-	0.00%	-	-	-	-	1.81%	1.91%	0.00%	7.77%	-
6	21.79%	5.05%	8.42%	0.00%	5.07%	0.00%	0.00%	0.00%	15.41%	9.01%	0.00%	0.00%
7	-	8.54%	0.00%	6.00%	9.43%	0.00%	-	-	0.00%	0.00%	-	6.98%
8	0.00%	26.02%	0.00%	0.00%	25.07%	8.21%	6.04%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0.00%	12.15%	0.00%	-	20.91%	0.00%	0.00%	-	0.00%	0.00%	0.00%	54.66%
10	-	4.19%	0.00%	0.00%	5.33%	46.83%	17.53%	0.00%	0.00%	0.00%	-	0.00%
11	0.00%	4.76%	0.00%	-	4.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0.00%	5.32%	0.00%	0.00%	6.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	0.00%	3.62%	-	-	3.83%	0.00%	0.00%	-	0.00%	-	-	-
14	0.00%	3.10%	0.00%	2.95%	3.45%	8.09%	6.42%	0.00%	0.00%	0.00%	0.00%	4.26%
15	0.00%	6.45%	0.00%	0.00%	7.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	0.00%	3.52%	2.26%	0.00%	3.70%	44.44%	27.63%	0.00%	0.00%	2.34%	0.00%	0.00%
17	0.00%	0.00%	0.00%	0.00%	0.00%	7.66%	5.41%	0.00%	0.00%	0.00%	0.00%	0.00%
18	-	-	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%	0.00%	-
19	0.00%	0.00%	0.00%	-	-	-	0.00%	0.00%	-	-	0.00%	0.00%
20	0.00%	-	6.78%	-	-	-	0.00%	0.00%	0.00%	9.09%	0.00%	-
21	0.00%	7.09%	-	-	7.15%	-	-	-	-	-	-	-
22	0.00%	3.73%	0.00%	0.00%	5.36%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
23	0.00%	0.00%	24.24%	0.00%	0.00%	0.00%	0.00%	0.58%	0.00%	21.88%	0.72%	0.00%
24	0.00%	-8.73%	100.00%	100.00%	-8.12%	0.00%	0.00%	-	0.00%	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	2.99%	-
26	1.46%	0.00%	2.20%	0.00%	0.00%	0.00%	0.00%	0.00%	2.52%	2.30%	0.00%	0.00%
27	-	2.54%	28.57%	0.00%	3.14%	-	-	-	-	11.76%	-	0.00%
28	0.00%	3.44%	1.46%	0.00%	2.75%	0.00%	-	0.00%	0.00%	9.09%	-	0.00%
29	3.51%	2.73%	0.00%	0.00%	4.15%	0.00%	0.00%	0.00%	1.96%	0.00%	0.00%	0.00%
30	0.00%	2.99%	-	-	3.07%	0.00%	0.00%	-	0.00%	-	-	-
31	-	3.85%	16.67%	0.00%	7.64%	-	-	-	-	44.44%	-	0.00%
32	-	3.85%	0.00%	-	7.50%	-	-	-	-	0.00%	-	-
33	0.00%	3.93%	0.00%	0.00%	7.89%	-	-	-	0.00%	0.00%	-	0.00%
34	-	3.73%	0.00%	0.00%	6.86%	-	-	-	-	0.00%	-	0.00%
35	12.12%	3.30%	-	-	6.50%	0.00%	-	-	19.05%	-	-	-
36	9.09%	4.65%	0.00%	0.00%	6.15%	0.00%	-	-	5.37%	0.00%	0.00%	0.00%
37	100.00%	-	100.00%	-	-	-	-	1.15%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	184	149	353	271	385	295	555	110	80	934
v/c Ratio	0.71	0.58	0.72	0.67	0.92	0.95	0.73	0.16	0.70	0.96
Control Delay	63.4	56.5	15.8	52.1	70.9	89.3	38.1	5.3	87.1	61.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	56.5	15.8	52.1	70.9	89.3	38.1	5.3	87.1	61.6
Queue Length 50th (ft)	137	109	20	191	274	228	358	0	61	363
Queue Length 95th (ft)	206	170	102	300	#485	#419	530	35	#141	#530
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	409	403	586	405	418	311	760	675	120	975
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.37	0.60	0.67	0.92	0.95	0.73	0.16	0.67	0.96

Intersection Summary

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

Lane Group	EBT	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	75	10	457	524	5	575	852
v/c Ratio	0.45	0.06	0.63	0.83	0.01	0.84	0.58
Control Delay	40.6	33.4	17.0	37.2	0.0	36.4	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	33.4	17.0	37.2	0.0	36.4	6.1
Queue Length 50th (ft)	34	5	143	238	0	264	132
Queue Length 95th (ft)	75	19	169	#443	0	#495	289
Internal Link Dist (ft)	142	528		1160			350
Turn Bay Length (ft)					125	190	
Base Capacity (vph)	328	426	787	731	661	755	1460
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.02	0.58	0.72	0.01	0.76	0.58

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	66	33	82	308	626	33	110	681
v/c Ratio	0.53	0.16	0.14	0.33	0.67	0.31	0.18	0.21	0.73
Control Delay	47.4	1.9	35.8	33.1	36.4	12.7	39.8	24.9	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	1.9	35.8	33.1	36.4	12.7	39.8	24.9	7.9
Queue Length 50th (ft)	27	0	15	30	131	67	15	39	0
Queue Length 95th (ft)	71	7	46	81	#308	183	49	97	108
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	252	774	618	612	671	2086	222	800	1059
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.09	0.05	0.13	0.46	0.30	0.15	0.14	0.64

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	90	117	87	497	378	69	241	710	226	64	1593	266
v/c Ratio	0.87	0.42	0.24	1.05	0.94	0.16	1.07	0.40	0.20	0.54	1.03	0.29
Control Delay	126.4	62.0	1.6	116.5	87.4	1.4	138.8	23.5	1.5	84.1	73.0	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	126.4	62.0	1.6	116.5	87.4	1.4	138.8	23.5	1.5	84.1	73.0	10.9
Queue Length 50th (ft)	89	104	0	~274	364	0	~261	227	0	61	~882	71
Queue Length 95th (ft)	#198	171	0	#391	#561	5	#440	284	28	113	#1022	128
Internal Link Dist (ft)		429			1915			582			5309	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	104	288	363	472	413	448	225	1772	1137	141	1542	910
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.41	0.24	1.05	0.92	0.15	1.07	0.40	0.20	0.45	1.03	0.29

Intersection Summary

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

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

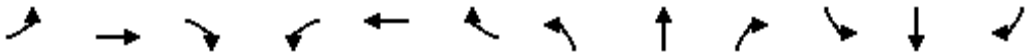
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	69	314	236	914	27	85	2060
v/c Ratio	0.26	0.76	0.38	0.45	0.02	0.55	0.79
Control Delay	2.3	34.7	4.2	15.1	0.0	39.6	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.3	34.7	4.2	15.1	0.0	39.6	15.1
Queue Length 50th (ft)	0	105	0	101	0	30	223
Queue Length 95th (ft)	0	#212	38	138	0	#74	288
Internal Link Dist (ft)				219			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	267	463	736	2033	1247	188	2616
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.68	0.32	0.45	0.02	0.45	0.79

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	76	10	130	167	31	26	365	1054	94	83	2048	154
v/c Ratio	0.51	0.11	0.51	0.69	0.18	0.11	0.82	0.55	0.10	0.53	1.02	0.23
Control Delay	69.7	65.0	17.6	67.8	56.8	1.0	60.5	19.9	5.8	69.5	62.2	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0	0.0	0.0	2.4	0.0
Total Delay	69.7	65.0	17.6	67.8	56.8	1.0	60.7	20.9	5.8	69.5	64.6	15.3
Queue Length 50th (ft)	60	8	0	129	23	0	277	269	9	65	~642	36
Queue Length 95th (ft)	125	30	38	231	60	0	438	435	41	134	#976	107
Internal Link Dist (ft)		707			562			403			599	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	394	418	687	394	415	430	613	2038	971	265	2017	675
Starvation Cap Reductn	0	0	0	0	0	0	30	662	0	0	15	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.02	0.19	0.42	0.07	0.06	0.63	0.77	0.10	0.31	1.02	0.23

Intersection Summary

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

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

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	5	71	799	252	245	87	1136	163	2392	54
v/c Ratio	0.08	0.39	0.89	0.55	0.54	0.65	0.35	0.16	0.94	0.06
Control Delay	71.2	17.9	64.4	31.3	25.9	87.0	7.2	0.6	39.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0	0.0
Total Delay	71.2	17.9	64.4	31.3	25.9	87.0	7.2	0.6	84.4	1.1
Queue Length 50th (ft)	5	6	378	123	95	72	155	5	765	0
Queue Length 95th (ft)	20	35	429	226	196	m#152	130	0	#980	8
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	61	184	1141	486	483	134	3231	999	2552	928
Starvation Cap Reductn	0	0	0	0	0	0	0	0	585	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.39	0.70	0.52	0.51	0.65	0.35	0.16	1.22	0.06

Intersection Summary

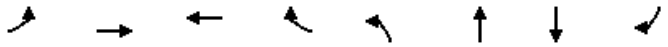
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	599	125	462	16	33	1277	38	239	2163	251
v/c Ratio	0.61	0.13	0.97	0.19	0.14	0.44	0.05	0.76	0.98	0.25
Control Delay	45.4	39.8	76.1	72.3	1.3	25.6	0.1	78.1	39.0	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Total Delay	45.4	39.8	76.1	72.3	1.3	26.5	0.1	78.1	39.0	1.6
Queue Length 50th (ft)	257	46	356	15	0	215	0	114	935	9
Queue Length 95th (ft)	285	73	#574	42	0	300	0	m141	#1356	m27
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	998	1008	500	84	261	2871	819	387	2207	1018
Starvation Cap Reductn	0	0	0	0	0	1207	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.12	0.92	0.19	0.13	0.77	0.05	0.62	0.98	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	141	76	21	76	65	1120	2440	201
v/c Ratio	0.76	0.33	0.22	0.55	0.45	0.24	1.11	0.19
Control Delay	89.7	18.3	72.5	28.1	76.0	6.0	83.1	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.9
Total Delay	89.7	18.3	72.5	28.1	76.0	6.3	83.6	8.7
Queue Length 50th (ft)	135	4	20	0	62	88	~1446	47
Queue Length 95th (ft)	#213	55	49	53	115	119	#1619	90
Internal Link Dist (ft)		343	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	212	254	218	223	145	4584	2202	1041
Starvation Cap Reductn	0	0	0	0	0	2519	408	595
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.30	0.10	0.34	0.45	0.54	1.36	0.45

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	136	38	261	114	130	11	315	1038	82	65	2217	245
v/c Ratio	1.28	0.16	0.68	0.52	0.61	0.05	1.30	0.37	0.09	0.56	1.25	0.38
Control Delay	225.8	52.3	23.4	66.7	66.9	0.4	204.2	16.7	3.9	75.2	147.7	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.6
Total Delay	225.8	52.3	23.4	66.7	66.9	0.4	204.2	16.7	3.9	75.2	148.4	15.6
Queue Length 50th (ft)	~144	29	44	47	106	0	~337	173	1	53	~1222	78
Queue Length 95th (ft)	#293	64	138	83	173	0	#551	243	28	104	#1445	154
Internal Link Dist (ft)		2100			372			343			363	
Turn Bay Length (ft)	130		75	265		150	150		45	220		200
Base Capacity (vph)	106	518	589	252	512	411	243	2814	886	161	1772	646
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	326	164
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	0.07	0.44	0.45	0.25	0.03	1.30	0.37	0.09	0.40	1.53	0.51

Intersection Summary

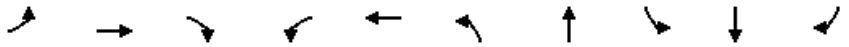
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	53	20	230	1605	3355
v/c Ratio	0.29	0.19	0.89	0.52	0.98
Control Delay	66.5	27.0	91.2	2.6	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	27.0	91.2	2.6	31.1
Queue Length 50th (ft)	24	0	206	130	986
Queue Length 95th (ft)	39	20	#275	128	682
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	478	248	259	3075	3411
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.11	0.08	0.89	0.52	0.98

Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	116	630	245	201	737	530	1204	164	1274	334
v/c Ratio	0.72	0.67	0.43	1.25	0.74	1.19	1.01	1.03	0.78	0.48
Control Delay	70.6	36.8	8.0	194.1	30.5	144.3	61.1	126.1	35.3	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.6	36.8	8.0	194.1	30.5	144.3	61.1	126.1	35.3	8.1
Queue Length 50th (ft)	74	190	12	~165	175	~217	~422	~116	274	22
Queue Length 95th (ft)	#164	250	72	#318	243	#334	#598	#254	345	97
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	168	1087	623	161	1107	447	1196	159	1632	689
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.58	0.39	1.25	0.67	1.19	1.01	1.03	0.78	0.48

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	66	137	440	66	297	502	66	711	99
v/c Ratio	0.28	0.31	1.02	0.13	1.00	0.59	0.53	0.97	0.15
Control Delay	35.2	7.2	88.3	2.4	98.2	21.8	62.5	59.3	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.2	7.2	88.3	2.4	98.2	21.8	62.5	59.3	5.0
Queue Length 50th (ft)	37	0	~321	0	212	233	45	483	1
Queue Length 95th (ft)	77	47	#525	12	#390	358	90	#736	34
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	235	448	432	492	297	844	150	733	649
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.31	1.02	0.13	1.00	0.59	0.44	0.97	0.15

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	32	167	512	529	217	61	777	902	278	748
v/c Ratio	0.29	0.56	1.02	1.04	0.38	0.49	0.64	1.09	1.24	0.51
Control Delay	64.4	42.2	91.8	95.2	14.5	72.3	38.3	82.6	186.9	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.4	42.2	91.8	95.2	14.5	72.3	38.3	82.6	186.9	29.9
Queue Length 50th (ft)	26	43	~487	~510	44	51	288	~625	~293	249
Queue Length 95th (ft)	61	81	#746	#773	117	100	373	#904	#488	330
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	328	762	500	509	572	148	1218	824	224	1455
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.22	1.02	1.04	0.38	0.41	0.64	1.09	1.24	0.51

Intersection Summary

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

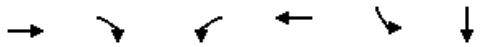
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	159	1218	17	1270	529	23	22	221	221	222
v/c Ratio	0.78	0.71	0.17	1.01	0.73	0.15	0.15	0.64	0.63	0.45
Control Delay	66.5	23.1	46.2	57.0	18.5	42.0	30.2	39.6	39.1	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	23.1	46.2	57.0	18.5	42.0	30.2	39.6	39.1	6.9
Queue Length 50th (ft)	86	237	9	~363	109	12	6	115	115	0
Queue Length 95th (ft)	#202	#471	31	#571	251	37	29	184	183	47
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	203	1723	98	1262	725	155	142	584	591	687
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.71	0.17	1.01	0.73	0.15	0.15	0.38	0.37	0.32

Intersection Summary

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

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



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	1045	522	371	1365	107	438
v/c Ratio	0.82	0.59	0.91	0.60	0.25	0.96
Control Delay	33.5	5.3	62.3	10.6	28.6	61.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	5.3	62.3	10.6	28.6	61.5
Queue Length 50th (ft)	288	0	203	214	48	198
Queue Length 95th (ft)	#374	64	#353	268	91	#379
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1271	878	424	2275	443	466
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.59	0.88	0.60	0.24	0.94

Intersection Summary

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	211	928	1100	72	555	759	748
v/c Ratio	0.98	0.56	0.99	0.13	0.74	1.08	1.03
Control Delay	106.0	22.8	64.0	8.6	31.8	83.6	68.6
Queue Delay	0.0	0.0	9.9	0.0	0.0	0.0	0.0
Total Delay	106.0	22.8	73.9	8.6	31.8	83.6	68.6
Queue Length 50th (ft)	151	242	405	3	329	~625	~563
Queue Length 95th (ft)	#303	304	#556	37	476	#883	#811
Internal Link Dist (ft)		595	411			642	
Turn Bay Length (ft)	170				455		455
Base Capacity (vph)	215	1653	1106	539	755	706	728
Starvation Cap Reductn	0	0	38	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.56	1.03	0.13	0.74	1.08	1.03

Intersection Summary

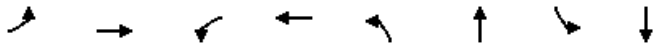
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	57	2391	36	856	356	82
v/c Ratio	0.38	0.87	0.31	0.31	0.81	0.20
Control Delay	42.6	21.1	42.6	10.9	42.0	7.2
Queue Delay	0.0	1.0	0.0	0.0	0.0	0.0
Total Delay	42.6	22.2	42.6	10.9	42.0	7.2
Queue Length 50th (ft)	28	397	18	91	163	0
Queue Length 95th (ft)	62	#503	45	114	#270	29
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	149	2746	116	2755	518	470
Starvation Cap Reductn	0	155	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.92	0.31	0.31	0.69	0.17

Intersection Summary

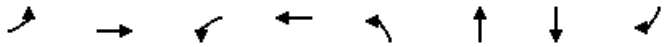
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	272	223	560	76	144	114	525
v/c Ratio	0.79	0.58	0.78	0.94	0.56	0.14	0.70	0.49
Control Delay	68.8	30.8	51.7	51.9	52.5	16.6	59.6	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.8	30.8	51.7	51.9	52.5	16.6	59.6	24.0
Queue Length 50th (ft)	65	115	107	254	37	20	56	110
Queue Length 95th (ft)	#155	192	#207	#452	#90	42	#133	158
Internal Link Dist (ft)		705		2100		773		773
Turn Bay Length (ft)	200		200		200		200	
Base Capacity (vph)	165	472	305	608	139	1025	165	1076
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.58	0.73	0.92	0.55	0.14	0.69	0.49

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	777	1338	12	686	174	34	47	45
v/c Ratio	0.96	0.40	0.10	0.68	0.63	0.12	0.52	0.23
Control Delay	54.6	11.9	50.8	42.7	53.4	20.7	51.0	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	11.9	50.8	42.7	53.4	20.7	51.0	2.8
Queue Length 50th (ft)	531	129	8	155	118	7	15	0
Queue Length 95th (ft)	#965	344	28	228	189	35	#76	0
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	810	3441	119	1136	495	486	91	195
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.39	0.10	0.60	0.35	0.07	0.52	0.23

Intersection Summary

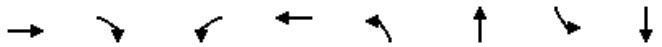
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

24: Sierra College Blvd & Project Driveway

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	14	36	166	59	101	897	168	59	2290
v/c Ratio	0.12	0.15	0.62	0.13	0.64	0.28	0.13	0.36	0.79
Control Delay	36.5	1.2	45.5	0.6	54.9	8.2	1.1	39.2	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	1.2	45.5	0.6	54.9	8.2	1.1	39.2	15.7
Queue Length 50th (ft)	7	0	41	0	48	84	0	27	315
Queue Length 95th (ft)	24	0	#80	0	#121	110	17	63	385
Internal Link Dist (ft)		586		351		599			343
Turn Bay Length (ft)			150				160	190	
Base Capacity (vph)	121	494	267	607	157	3205	1294	176	2898
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.07	0.62	0.10	0.64	0.28	0.13	0.34	0.79

Intersection Summary

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



Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	233	1076	479	444	531	96	6	6
v/c Ratio	0.45	1.12	1.14	0.45	1.03	0.10	0.09	0.02
Control Delay	41.3	83.5	132.3	17.5	91.6	0.2	67.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	83.5	132.3	17.5	91.6	0.2	67.6	0.0
Queue Length 50th (ft)	156	~609	~461	189	448	0	5	0
Queue Length 95th (ft)	258	#924	#745	316	#761	0	21	0
Internal Link Dist (ft)	684			870		7195		1542
Turn Bay Length (ft)		520	360				200	
Base Capacity (vph)	520	961	421	996	518	963	67	337
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	1.12	1.14	0.45	1.03	0.10	0.09	0.02

Intersection Summary

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

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

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	221	656	302	2056
v/c Ratio	0.59	0.44	0.73	0.79
Control Delay	11.8	14.4	34.8	8.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.8	14.4	34.8	8.4
Queue Length 50th (ft)	3	86	103	158
Queue Length 95th (ft)	56	154	#215	379
Internal Link Dist (ft)	845	10454		3226
Turn Bay Length (ft)	1450		100	
Base Capacity (vph)	615	1478	470	2619
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.44	0.64	0.79

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	118	143	198	156	291	12	773	333
v/c Ratio	0.57	0.46	0.73	0.88	0.29	0.13	0.93	0.44
Control Delay	53.5	11.3	57.4	88.7	13.2	52.6	47.1	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.5	11.3	57.4	88.7	13.2	52.6	47.1	13.1
Queue Length 50th (ft)	74	0	121	102	84	8	469	76
Queue Length 95th (ft)	118	36	184	#205	165	25	#668	136
Internal Link Dist (ft)	422		500		2517		526	
Turn Bay Length (ft)		30		150		140		115
Base Capacity (vph)	310	393	326	178	1012	89	831	755
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.36	0.61	0.88	0.29	0.13	0.93	0.44

Intersection Summary

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

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	206	434	261	1073
v/c Ratio	0.63	0.51	0.75	0.80
Control Delay	23.3	17.0	42.0	13.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.3	17.0	42.0	13.4
Queue Length 50th (ft)	40	129	105	231
Queue Length 95th (ft)	65	172	148	303
Internal Link Dist (ft)	429	6529		184
Turn Bay Length (ft)	495		85	
Base Capacity (vph)	507	852	394	1346
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.41	0.51	0.66	0.80

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	101	270	557	94	124	467	444	364	73	382
v/c Ratio	0.29	0.72	0.77	0.51	0.62	0.79	0.53	0.42	0.50	0.73
Control Delay	37.5	50.3	13.4	54.6	51.6	43.1	26.5	4.1	59.9	48.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	50.3	13.4	54.6	51.6	43.1	26.5	4.1	59.9	48.9
Queue Length 50th (ft)	55	163	25	58	65	270	213	0	46	118
Queue Length 95th (ft)	112	277	149	119	135	#544	381	58	103	189
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	482	512	800	487	492	594	862	886	195	702
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.53	0.70	0.19	0.25	0.79	0.52	0.41	0.37	0.54

Intersection Summary

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

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	69	80	489	21	829	112	590	760
v/c Ratio	0.39	0.68	0.65	0.30	0.97	0.16	0.96	0.51
Control Delay	52.0	86.7	27.0	75.0	61.1	9.9	71.4	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	86.7	27.0	75.0	61.1	9.9	71.4	7.3
Queue Length 50th (ft)	47	69	256	18	704	20	509	233
Queue Length 95th (ft)	96	128	373	49	#1040	59	#788	360
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	240	158	748	77	852	716	615	1479
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.51	0.65	0.27	0.97	0.16	0.96	0.51

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	111	64	90	133	229	1021	53	218	612
v/c Ratio	1.18	0.11	0.47	0.55	0.74	0.78	0.40	0.52	0.73
Control Delay	184.5	1.1	46.2	29.7	49.1	27.6	50.0	33.8	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	184.5	1.1	46.2	29.7	49.1	27.6	50.0	33.8	8.7
Queue Length 50th (ft)	~77	0	48	34	119	253	28	100	0
Queue Length 95th (ft)	#196	6	97	92	207	356	69	186	100
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	94	586	403	437	415	1509	145	509	880
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.18	0.11	0.22	0.30	0.55	0.68	0.37	0.43	0.70

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	147	348	283	564	207	76	164	1620	624	38	1042	76
v/c Ratio	0.70	1.00	0.66	1.03	0.47	0.17	0.87	0.97	0.57	0.59	0.77	0.09
Control Delay	71.6	99.2	29.4	97.8	48.2	0.9	95.3	49.8	11.2	96.3	39.5	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.5	0.9	0.0	0.0	0.0
Total Delay	71.6	99.2	29.4	97.8	48.2	0.9	95.3	90.3	12.1	96.3	39.5	1.5
Queue Length 50th (ft)	120	~301	97	~264	153	0	138	695	208	32	397	0
Queue Length 95th (ft)	190	#500	200	#380	242	1	#266	#874	309	#88	482	14
Internal Link Dist (ft)		429			1915			582			4602	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	262	349	427	550	436	458	194	1670	1095	64	1391	918
Starvation Cap Reductn	0	0	0	0	0	0	0	193	226	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	1.00	0.66	1.03	0.47	0.17	0.85	1.10	0.72	0.59	0.75	0.08

Intersection Summary

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

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

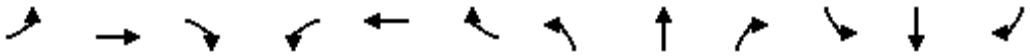
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	568	109	139	2195	391	335	1475
v/c Ratio	1.26	1.07	0.23	1.07	0.42	1.16	0.49
Control Delay	167.2	165.6	5.8	78.8	8.5	152.1	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	167.2	165.6	5.8	78.8	8.5	152.1	15.4
Queue Length 50th (ft)	~538	~101	0	~749	66	~334	242
Queue Length 95th (ft)	#768	#224	46	#842	140	#525	280
Internal Link Dist (ft)				226			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	452	102	606	2053	934	288	3007
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	1.07	0.23	1.07	0.42	1.16	0.49

Intersection Summary

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

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	451	27	303	128	32	96	234	2287	59	106	1980	206
v/c Ratio	1.06	0.08	0.41	0.64	0.29	0.52	0.77	1.39	0.08	0.59	0.99	0.31
Control Delay	107.7	48.5	7.1	69.1	65.5	21.9	67.8	206.9	5.8	68.8	57.1	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	3.2	0.0
Total Delay	107.7	48.5	7.1	69.1	65.5	21.9	67.8	208.6	5.8	68.8	60.4	18.3
Queue Length 50th (ft)	~407	19	0	102	26	0	186	~1314	1	85	586	66
Queue Length 95th (ft)	#699	51	46	177	63	57	285	#1604	27	153	#829	146
Internal Link Dist (ft)		707			448			403			594	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	425	430	875	412	430	432	607	2085	935	278	1997	669
Starvation Cap Reductn	0	0	0	0	0	0	0	243	0	0	28	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.06	0.35	0.31	0.07	0.22	0.39	1.24	0.06	0.38	1.01	0.31

Intersection Summary

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

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

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	37	128	1101	249	242	324	2094	271	2373	37
v/c Ratio	0.58	0.35	0.96	0.55	0.51	1.06	0.71	0.26	1.28	0.06
Control Delay	99.3	16.1	63.7	44.2	29.0	118.0	25.3	2.5	168.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Total Delay	99.3	16.1	63.7	44.2	29.0	118.0	25.3	2.5	169.4	0.2
Queue Length 50th (ft)	34	26	495	185	115	~345	548	14	~1002	0
Queue Length 95th (ft)	#88	59	#628	283	208	m#523	m599	m42	#1091	0
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	64	368	1190	455	482	306	2937	1035	1848	660
Starvation Cap Reductn	0	0	0	0	0	0	0	0	303	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.35	0.93	0.55	0.50	1.06	0.71	0.26	1.54	0.06

Intersection Summary

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

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

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

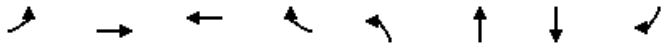
Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	657	189	105	132	326	2588	168	284	1637	548
v/c Ratio	0.91	0.52	0.41	0.96	1.45	0.69	0.17	0.96	0.66	0.42
Control Delay	71.0	64.7	14.1	131.1	255.3	21.1	3.9	94.4	7.5	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	47.1	0.0	0.0	0.0	0.0
Total Delay	71.0	64.7	14.1	131.1	255.3	68.2	3.9	94.4	7.5	0.8
Queue Length 50th (ft)	299	86	0	122	~319	465	13	136	294	0
Queue Length 95th (ft)	#393	128	53	#257	#517	504	45	m#153	m294	m0
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	760	1083	551	137	225	3728	1011	297	2495	1296
Starvation Cap Reductn	0	0	0	0	0	1385	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.17	0.19	0.96	1.45	1.10	0.17	0.96	0.66	0.42

Intersection Summary

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

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

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



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	168	82	32	82	60	2668	1728	207
v/c Ratio	0.70	0.29	0.26	0.40	0.39	0.60	0.84	0.21
Control Delay	60.6	15.0	53.3	11.4	53.9	10.8	27.0	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.9	47.2	0.0
Total Delay	60.6	15.0	53.3	11.4	53.9	11.6	74.2	8.1
Queue Length 50th (ft)	114	7	22	0	41	280	553	34
Queue Length 95th (ft)	183	50	53	31	82	363	#833	87
Internal Link Dist (ft)		220	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	289	324	297	348	155	4414	2062	966
Starvation Cap Reductn	0	0	0	0	0	1318	506	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.25	0.11	0.24	0.39	0.86	1.11	0.21

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	223	60	527	168	109	16	321	2488	201	109	1603	114
v/c Ratio	1.14	0.13	0.93	0.79	0.30	0.04	1.13	1.00	0.24	0.96	1.12	0.16
Control Delay	162.7	42.5	53.5	92.1	50.5	0.1	146.2	55.7	10.8	140.0	103.6	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0
Total Delay	162.7	42.5	53.5	92.1	50.5	0.1	146.2	55.7	10.8	140.0	104.8	2.3
Queue Length 50th (ft)	~255	44	293	83	87	0	~365	~938	46	107	~952	0
Queue Length 95th (ft)	#438	83	#498	#150	145	0	#575	#1056	102	#243	#1122	22
Internal Link Dist (ft)		2122			372			324			363	
Turn Bay Length (ft)	130		75	265		150	150		45	220		200
Base Capacity (vph)	195	548	634	212	466	509	284	2479	830	114	1432	725
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	369	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.11	0.83	0.79	0.23	0.03	1.13	1.00	0.24	0.96	1.51	0.16

Intersection Summary

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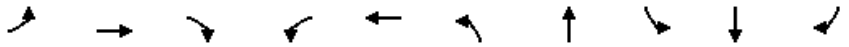
Queue shown is maximum after two cycles.

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

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	300	184	63	2594	2263
v/c Ratio	0.61	0.51	0.42	0.98	0.70
Control Delay	43.9	14.7	50.7	25.1	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	14.7	50.7	25.1	13.6
Queue Length 50th (ft)	88	16	36	623	317
Queue Length 95th (ft)	130	77	80	#1048	425
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	683	439	171	2660	3240
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.44	0.42	0.37	0.98	0.70

Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	361	344	672	113	488	522	2241	354	1742	248
v/c Ratio	1.40	0.41	1.14	1.01	0.79	0.89	1.49	1.45	0.87	0.36
Control Delay	245.3	48.0	112.0	153.1	52.8	77.1	256.0	266.8	46.2	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	245.3	48.0	112.0	153.1	52.8	77.1	256.0	266.8	46.2	14.2
Queue Length 50th (ft)	~454	145	~532	~110	174	251	~1544	~454	552	64
Queue Length 95th (ft)	#657	194	#779	#243	241	#345	#1675	#656	620	136
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	258	846	588	112	615	591	1504	244	2007	689
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.40	0.41	1.14	1.01	0.79	0.88	1.49	1.45	0.87	0.36

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	341	418	258	60	170	1412	49	584	27
v/c Ratio	1.18	0.54	1.25	0.11	0.77	1.38	0.75	0.71	0.04
Control Delay	155.2	6.6	187.1	4.7	83.5	206.6	126.5	39.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	155.2	6.6	187.1	4.7	83.5	206.6	126.5	39.3	0.1
Queue Length 50th (ft)	~402	6	~316	0	162	~1847	48	453	0
Queue Length 95th (ft)	#605	93	#498	23	242	#2118	#127	632	0
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	289	773	207	525	275	1022	65	826	650
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.18	0.54	1.25	0.11	0.62	1.38	0.75	0.71	0.04

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	74	308	516	527	314	53	824	900	202	933
v/c Ratio	0.34	0.71	1.07	1.08	0.52	0.50	0.66	1.09	1.12	0.64
Control Delay	60.0	65.3	108.9	112.1	16.8	80.9	40.9	83.8	157.3	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.0	65.3	108.9	112.1	16.8	80.9	40.9	83.8	157.3	36.0
Queue Length 50th (ft)	62	136	~544	~561	70	47	327	~670	~209	362
Queue Length 95th (ft)	114	188	#823	#840	173	97	423	#964	#389	465
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	348	692	481	486	605	116	1258	823	181	1459
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.45	1.07	1.08	0.52	0.46	0.66	1.09	1.12	0.64

Intersection Summary

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

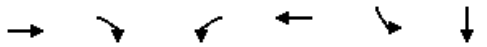
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	343	1214	36	1141	536	57	37	265	266	270
v/c Ratio	0.99	0.68	0.41	1.01	0.81	0.44	0.26	0.70	0.69	0.48
Control Delay	89.8	23.9	62.9	64.0	26.1	58.6	36.4	45.9	45.7	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.8	23.9	62.9	64.0	26.1	58.6	36.4	45.9	45.7	6.7
Queue Length 50th (ft)	224	331	23	~396	153	36	13	165	166	0
Queue Length 95th (ft)	#452	479	#61	#614	#380	83	48	254	255	61
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	345	1779	88	1134	663	129	141	533	537	688
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.68	0.41	1.01	0.81	0.44	0.26	0.50	0.50	0.39

Intersection Summary

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

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



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	1184	563	674	1426	74	352
v/c Ratio	0.97	0.71	1.00	0.54	0.24	1.02
Control Delay	64.5	16.5	77.4	7.5	52.6	94.7
Queue Delay	0.0	0.0	25.4	0.8	0.0	0.0
Total Delay	64.5	16.5	102.8	8.4	52.6	94.7
Queue Length 50th (ft)	557	129	610	240	59	~264
Queue Length 95th (ft)	#708	277	#878	283	108	#468
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1222	793	675	2650	308	346
Starvation Cap Reductn	0	0	49	830	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.71	1.08	0.78	0.24	1.02

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	337	962	1685	147	382	367	360
v/c Ratio	1.03	0.39	1.02	0.18	1.02	0.86	0.76
Control Delay	99.3	7.4	53.8	4.8	92.4	46.6	31.0
Queue Delay	0.0	0.0	32.5	0.0	0.0	0.0	0.0
Total Delay	99.3	7.4	86.3	4.8	92.4	46.6	31.0
Queue Length 50th (ft)	~231	123	~572	8	~273	175	123
Queue Length 95th (ft)	#403	156	#738	42	#465	#356	#266
Internal Link Dist (ft)		595	411			642	
Turn Bay Length (ft)	170				455		455
Base Capacity (vph)	327	2444	1658	807	373	426	472
Starvation Cap Reductn	0	0	253	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.39	1.20	0.18	1.02	0.86	0.76

Intersection Summary

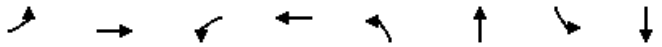
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	60	1539	63	1582	275	63
v/c Ratio	0.28	0.69	0.31	0.71	0.61	0.13
Control Delay	26.2	14.8	27.5	16.9	22.8	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	14.8	27.5	16.9	22.8	1.9
Queue Length 50th (ft)	17	134	18	156	75	0
Queue Length 95th (ft)	51	#255	53	#288	135	9
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	217	2242	203	2242	732	711
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.69	0.31	0.71	0.38	0.09

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	489	179	326	54	902	190	418
v/c Ratio	0.56	0.97	0.87	0.53	0.38	0.91	0.89	0.33
Control Delay	52.5	62.2	74.6	23.7	42.8	39.5	75.7	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	62.2	74.6	23.7	42.8	39.5	75.7	17.9
Queue Length 50th (ft)	37	231	89	121	26	196	95	72
Queue Length 95th (ft)	#90	#424	#202	203	61	#314	#212	112
Internal Link Dist (ft)		705		2122		773		773
Turn Bay Length (ft)	200		200		200		200	
Base Capacity (vph)	139	506	205	620	148	986	214	1255
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.97	0.87	0.53	0.36	0.91	0.89	0.33

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	185	1029	32	1154	130	47	257	243
v/c Ratio	0.92	0.43	0.21	0.65	0.38	0.14	1.24	0.63
Control Delay	82.7	14.7	36.4	21.2	26.5	9.0	168.4	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.7	14.7	36.4	21.2	26.5	9.0	168.4	13.9
Queue Length 50th (ft)	75	75	12	132	48	2	~116	0
Queue Length 95th (ft)	#253	213	45	260	89	23	#331	#93
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	201	2414	150	1975	862	808	207	386
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.43	0.21	0.58	0.15	0.06	1.24	0.63

Intersection Summary

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

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

24: Sierra College Blvd & Project Driveway

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	114	90	437	175	52	2421	421	154	1955
v/c Ratio	0.59	0.41	0.86	0.58	0.40	0.89	0.34	0.86	0.66
Control Delay	58.4	8.9	62.6	14.4	57.9	27.6	2.5	87.3	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.1
Total Delay	58.4	8.9	62.6	14.4	57.9	30.1	2.5	87.3	17.9
Queue Length 50th (ft)	76	0	154	0	35	516	22	106	335
Queue Length 95th (ft)	138	23	#261	58	78	#678	63	#240	449
Internal Link Dist (ft)		536		371		594			341
Turn Bay Length (ft)			150				160	190	
Base Capacity (vph)	251	371	510	423	150	2734	1234	180	2969
Starvation Cap Reductn	0	0	0	0	0	205	0	0	176
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.24	0.86	0.41	0.35	0.96	0.34	0.86	0.70

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT
Lane Group Flow (vph)	5	500	665	202	380	1284	369
v/c Ratio	0.08	1.18	0.93	1.25	0.60	1.31	0.36
Control Delay	68.2	149.7	36.5	202.1	43.0	176.6	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	149.7	36.5	202.1	43.0	176.6	2.5
Queue Length 50th (ft)	5	~547	227	~229	278	~1507	3
Queue Length 95th (ft)	20	#769	#487	#393	431	#1773	48
Internal Link Dist (ft)		684			870		8961
Turn Bay Length (ft)	250		520	360			
Base Capacity (vph)	64	423	718	162	632	978	1039
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	1.18	0.93	1.25	0.60	1.31	0.36

Intersection Summary

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

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

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	324	2170	258	1113
v/c Ratio	0.87	0.98	0.87	0.39
Control Delay	39.7	40.1	80.2	3.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	39.7	40.1	80.2	3.7
Queue Length 50th (ft)	79	~1021	210	104
Queue Length 95th (ft)	#191	#1157	#388	156
Internal Link Dist (ft)	845	10454		1460
Turn Bay Length (ft)	1450		100	
Base Capacity (vph)	430	2208	297	2845
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.75	0.98	0.87	0.39

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	393	210	106	131	532	17	212	146
v/c Ratio	0.82	0.38	0.45	0.54	0.67	0.14	0.40	0.25
Control Delay	43.9	8.4	36.0	41.3	25.4	40.1	29.0	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	8.4	36.0	41.3	25.4	40.1	29.0	3.7
Queue Length 50th (ft)	183	10	44	61	196	8	90	0
Queue Length 95th (ft)	#361	64	91	120	#448	29	167	28
Internal Link Dist (ft)	422		500		2517		526	
Turn Bay Length (ft)		30		150		140		115
Base Capacity (vph)	515	580	446	310	792	123	535	587
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.36	0.24	0.42	0.67	0.14	0.40	0.25

Intersection Summary

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

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	196	487	295	115
v/c Ratio	0.53	0.68	0.72	0.09
Control Delay	10.6	21.6	32.1	3.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.6	21.6	32.1	3.2
Queue Length 50th (ft)	4	122	83	8
Queue Length 95th (ft)	47	#270	#193	25
Internal Link Dist (ft)	429	6529		184
Turn Bay Length (ft)	495		85	
Base Capacity (vph)	657	711	428	1320
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.30	0.68	0.69	0.09

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	93	105	360	152	74	335	437	319	37	302
v/c Ratio	0.38	0.43	0.68	0.54	0.26	0.79	0.56	0.39	0.33	0.48
Control Delay	32.7	33.9	10.9	35.4	23.0	44.0	20.6	3.9	44.0	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	33.9	10.9	35.4	23.0	44.0	20.6	3.9	44.0	27.0
Queue Length 50th (ft)	33	38	0	54	18	121	140	0	14	54
Queue Length 95th (ft)	78	86	45	117	54	#309	249	33	46	94
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	720	719	865	771	747	422	932	905	111	1097
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.15	0.42	0.20	0.10	0.79	0.47	0.35	0.33	0.28

Intersection Summary

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

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	39	114	313	23	677	136	460	588
v/c Ratio	0.16	0.53	0.43	0.18	0.86	0.20	0.84	0.42
Control Delay	25.6	42.2	10.6	42.2	37.0	6.6	42.6	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	42.2	10.6	42.2	37.0	6.6	42.6	7.6
Queue Length 50th (ft)	13	56	64	12	323	8	222	83
Queue Length 95th (ft)	39	105	113	36	#569	44	#407	250
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)				100		125	190	
Base Capacity (vph)	426	358	798	136	864	748	630	1388
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.32	0.39	0.17	0.78	0.18	0.73	0.42

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	112	51	56	135	309	792	34	185	596
v/c Ratio	1.30	0.09	0.28	0.60	0.84	0.57	0.29	0.48	0.74
Control Delay	233.6	0.3	40.6	41.2	55.8	22.8	48.3	34.8	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	233.6	0.3	40.6	41.2	55.8	22.8	48.3	34.8	9.0
Queue Length 50th (ft)	~87	0	30	58	171	180	19	90	0
Queue Length 95th (ft)	#201	0	66	115	#325	260	51	161	89
Internal Link Dist (ft)	310			268		126		222	
Turn Bay Length (ft)		250	275		85		160		95
Base Capacity (vph)	86	543	379	401	409	1501	133	479	858
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.30	0.09	0.15	0.34	0.76	0.53	0.26	0.39	0.69

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	234	283	567	181	37	190	801	581	43	818	43
v/c Ratio	0.48	0.57	0.61	1.02	0.32	0.06	1.16	0.62	0.53	0.40	0.81	0.06
Control Delay	46.1	34.8	19.6	80.6	25.8	0.2	158.5	26.3	6.7	51.6	36.5	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	34.8	19.6	80.6	25.8	0.2	158.5	26.3	6.7	51.6	36.5	0.8
Queue Length 50th (ft)	43	111	60	~170	78	0	~123	196	59	23	213	0
Queue Length 95th (ft)	92	182	139	#291	134	0	#267	284	165	58	#330	5
Internal Link Dist (ft)		429			1915			582			6350	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	208	537	555	557	622	625	164	1284	1088	107	1027	781
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.44	0.51	1.02	0.29	0.06	1.16	0.62	0.53	0.40	0.80	0.06

Intersection Summary

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

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

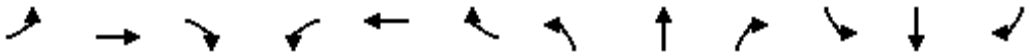
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	281	120	90	1427	292	260	1374
v/c Ratio	0.89	0.66	0.22	0.78	0.29	0.91	0.46
Control Delay	43.7	48.5	4.9	21.9	1.9	64.7	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	48.5	4.9	21.9	1.9	64.7	7.8
Queue Length 50th (ft)	38	47	0	180	0	102	94
Queue Length 95th (ft)	#164	#118	23	231	29	#223	123
Internal Link Dist (ft)				224			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	316	181	464	1834	1011	298	3016
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.66	0.19	0.78	0.29	0.87	0.46

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	310	21	219	146	31	68	219	1577	89	104	1571	216
v/c Ratio	0.73	0.07	0.35	0.66	0.28	0.37	0.75	0.95	0.12	0.58	0.76	0.31
Control Delay	56.6	48.8	8.0	67.3	64.9	11.9	65.7	45.0	9.3	67.4	36.1	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.1	0.0
Total Delay	56.6	48.8	8.0	67.3	64.9	11.9	65.7	46.7	9.3	67.4	36.2	14.8
Queue Length 50th (ft)	235	14	0	115	25	0	172	640	14	82	403	56
Queue Length 95th (ft)	#410	43	41	192	61	30	266	#903	49	148	530	131
Internal Link Dist (ft)		707			465			403			593	
Turn Bay Length (ft)	185			60		150	265			305		220
Base Capacity (vph)	422	444	843	425	427	460	633	2151	972	283	2060	704
Starvation Cap Reductn	0	0	0	0	0	0	0	383	0	0	32	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.05	0.26	0.34	0.07	0.15	0.35	0.89	0.09	0.37	0.77	0.31

Intersection Summary

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

Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	83	302	1135	297	273	417	1518	250	1883	26
v/c Ratio	1.12	0.61	0.93	0.64	0.58	0.98	0.53	0.25	1.32	0.05
Control Delay	196.3	28.9	54.7	44.2	29.3	84.6	21.5	2.8	187.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay	196.3	28.9	54.7	44.2	29.3	84.6	21.5	2.8	187.3	0.2
Queue Length 50th (ft)	~80	114	465	209	126	~375	340	10	~750	0
Queue Length 95th (ft)	#190	223	547	308	220	m#596	m393	m27	#846	0
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	74	494	1304	503	503	426	2851	988	1425	534
Starvation Cap Reductn	0	0	0	0	0	0	0	0	57	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.61	0.87	0.59	0.54	0.98	0.53	0.25	1.38	0.05

Intersection Summary

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

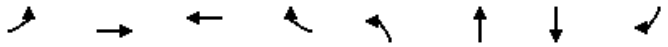
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	700	294	88	129	356	1453	103	448	1084	456
v/c Ratio	0.84	0.71	0.31	0.80	1.04	0.49	0.12	0.81	0.46	0.38
Control Delay	56.9	65.1	6.6	90.7	95.7	24.5	1.4	55.0	6.0	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
Total Delay	56.9	65.1	6.6	90.7	95.7	25.2	1.4	55.0	6.0	0.8
Queue Length 50th (ft)	290	128	0	107	217	254	0	192	123	0
Queue Length 95th (ft)	345	172	26	#194	#443	292	14	m198	m194	m14
Internal Link Dist (ft)		760				324			539	
Turn Bay Length (ft)	350		205	345	330		280	250		500
Base Capacity (vph)	866	1143	580	186	355	2939	851	577	2366	1196
Starvation Cap Reductn	0	0	0	0	0	1033	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.26	0.15	0.69	1.00	0.76	0.12	0.78	0.46	0.38

Intersection Summary

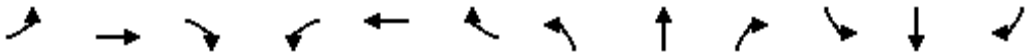
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	177	73	25	104	48	1369	1288	209
v/c Ratio	0.65	0.24	0.21	0.44	0.31	0.34	0.66	0.23
Control Delay	46.5	13.3	42.3	11.1	42.9	8.6	20.8	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0
Total Delay	46.5	13.3	42.3	11.1	42.9	8.6	21.9	7.6
Queue Length 50th (ft)	95	6	14	0	26	99	303	25
Queue Length 95th (ft)	155	42	38	34	59	145	#516	78
Internal Link Dist (ft)		235	420			363	324	
Turn Bay Length (ft)					90			100
Base Capacity (vph)	354	374	307	403	156	4065	1940	925
Starvation Cap Reductn	0	0	0	0	0	0	382	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.20	0.08	0.26	0.31	0.34	0.83	0.23

Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	253	108	515	77	211	5	531	1144	180	119	929	263
v/c Ratio	0.96	0.23	0.66	0.44	0.73	0.01	0.98	0.50	0.23	0.67	1.03	0.51
Control Delay	103.0	41.8	7.6	71.7	69.9	0.0	81.7	28.9	11.0	77.1	87.0	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.9	0.2
Total Delay	103.0	41.8	7.6	71.7	69.9	0.0	81.7	28.9	11.0	77.1	113.9	22.5
Queue Length 50th (ft)	224	77	0	34	180	0	464	260	34	102	~459	81
Queue Length 95th (ft)	#427	129	94	64	267	0	#759	354	95	173	#645	182
Internal Link Dist (ft)		2096			372			407			363	
Turn Bay Length (ft)	130		75	265		150	150		45	220		200
Base Capacity (vph)	264	666	901	181	490	528	541	2272	777	237	902	515
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	113	25
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.16	0.57	0.43	0.43	0.01	0.98	0.50	0.23	0.50	1.18	0.54

Intersection Summary

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

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

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	98	54	38	1771	1664
v/c Ratio	0.22	0.21	0.21	0.68	0.51
Control Delay	20.7	8.6	24.1	7.2	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.7	8.6	24.1	7.2	8.0
Queue Length 50th (ft)	14	0	11	144	69
Queue Length 95th (ft)	28	23	32	240	186
Internal Link Dist (ft)	243			1641	735
Turn Bay Length (ft)	200	60	200		
Base Capacity (vph)	1223	615	179	2604	3295
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.08	0.09	0.21	0.68	0.51

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	195	297	333	83	373	276	1422	247	1149	142
v/c Ratio	0.73	0.40	0.61	0.84	0.68	0.62	0.98	0.99	0.54	0.20
Control Delay	60.3	37.2	12.6	106.7	28.0	51.5	51.9	103.5	25.3	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.3	37.2	12.6	106.7	28.0	51.5	51.9	103.5	25.3	4.5
Queue Length 50th (ft)	129	92	33	58	61	93	502	~173	217	0
Queue Length 95th (ft)	216	132	118	#160	114	146	#749	#366	293	41
Internal Link Dist (ft)		2463			277		1382		1641	
Turn Bay Length (ft)	240			315		245		245		175
Base Capacity (vph)	332	1029	649	99	676	474	1449	249	2144	722
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.29	0.51	0.84	0.55	0.58	0.98	0.99	0.54	0.20

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	192	159	82	27	154	781	27	603	99
v/c Ratio	0.63	0.34	0.25	0.06	0.63	0.76	0.21	0.77	0.14
Control Delay	33.6	6.2	23.8	0.2	42.5	21.0	36.4	26.3	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	6.2	23.8	0.2	42.5	21.0	36.4	26.3	2.2
Queue Length 50th (ft)	74	0	29	0	62	179	11	204	0
Queue Length 95th (ft)	136	40	63	0	#155	#598	37	#435	17
Internal Link Dist (ft)	400		788			1712		4110	
Turn Bay Length (ft)		315		140	210		200		150
Base Capacity (vph)	540	700	568	713	260	1023	126	847	776
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.23	0.14	0.04	0.59	0.76	0.21	0.71	0.13

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	81	202	291	295	154	16	634	566	165	622
v/c Ratio	0.38	0.46	0.68	0.69	0.30	0.18	0.61	0.75	0.95	0.43
Control Delay	41.6	32.7	37.2	37.6	6.2	47.0	28.2	15.8	98.3	20.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	32.7	37.2	37.6	6.2	47.0	28.2	15.8	98.3	20.1
Queue Length 50th (ft)	41	44	148	150	0	8	145	67	~91	107
Queue Length 95th (ft)	90	83	247	249	44	31	232	228	#244	211
Internal Link Dist (ft)		848		1359			1411			2879
Turn Bay Length (ft)	130		250			265		110	230	
Base Capacity (vph)	635	1244	598	599	655	90	1212	806	174	1478
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.16	0.49	0.49	0.24	0.18	0.52	0.70	0.95	0.42

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	354	804	27	537	548	53	48	222	225	236
v/c Ratio	1.10	0.49	0.22	0.56	0.68	0.34	0.28	0.60	0.60	0.45
Control Delay	113.6	18.5	44.2	28.6	7.4	45.0	27.1	35.9	36.0	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.6	18.5	44.2	28.6	7.4	45.0	27.1	35.9	36.0	6.7
Queue Length 50th (ft)	~209	127	13	122	0	26	10	107	108	0
Queue Length 95th (ft)	#448	263	43	195	86	69	47	189	191	55
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150	100		325		
Base Capacity (vph)	323	1659	126	1205	873	157	172	678	682	765
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.48	0.21	0.45	0.63	0.34	0.28	0.33	0.33	0.31

Intersection Summary

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

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

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	763	495	468	942	47	205
v/c Ratio	0.51	0.53	0.84	0.33	0.28	0.70
Control Delay	23.1	4.8	41.7	3.1	40.3	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	4.8	41.7	3.1	40.3	23.9
Queue Length 50th (ft)	161	0	243	50	26	26
Queue Length 95th (ft)	280	77	323	109	54	89
Internal Link Dist (ft)	615			595		716
Turn Bay Length (ft)		280	300		635	
Base Capacity (vph)	1485	941	598	2837	443	523
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.53	0.78	0.33	0.11	0.39

Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	228	628	950	111	346	334	315
v/c Ratio	0.78	0.30	0.77	0.17	0.80	0.76	0.55
Control Delay	42.8	6.5	21.8	4.2	35.4	28.0	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	6.5	21.8	4.2	35.4	28.0	8.9
Queue Length 50th (ft)	72	48	145	0	108	85	16
Queue Length 95th (ft)	#164	73	#237	26	#230	#207	75
Internal Link Dist (ft)		595	411			642	
Turn Bay Length (ft)	170				455		455
Base Capacity (vph)	308	2079	1240	643	451	458	581
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.30	0.77	0.17	0.77	0.73	0.54

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	65	995	48	772	266	64
v/c Ratio	0.27	0.44	0.21	0.38	0.55	0.12
Control Delay	24.3	9.8	24.2	12.2	19.8	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	9.8	24.2	12.2	19.8	2.0
Queue Length 50th (ft)	17	42	12	60	62	0
Queue Length 95th (ft)	52	119	42	103	128	10
Internal Link Dist (ft)		411		1258		
Turn Bay Length (ft)	75		85		320	320
Base Capacity (vph)	245	2449	228	2294	877	841
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.41	0.21	0.34	0.30	0.08

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	152	375	228	277	43	965	158	475
v/c Ratio	0.71	0.95	0.90	0.63	0.36	0.99	0.45	0.33
Control Delay	57.4	70.6	76.0	36.4	48.2	53.3	36.3	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	70.6	76.0	36.4	48.2	53.3	36.3	16.5
Queue Length 50th (ft)	84	203	129	133	24	230	80	85
Queue Length 95th (ft)	#166	#378	#263	218	57	#368	140	126
Internal Link Dist (ft)		705		2096		773		773
Turn Bay Length (ft)	200		200		200		200	
Base Capacity (vph)	226	393	253	437	126	977	354	1454
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.95	0.90	0.63	0.34	0.99	0.45	0.33

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	32	809	34	594	100	40	61	59
v/c Ratio	0.16	0.34	0.17	0.25	0.26	0.11	0.28	0.16
Control Delay	32.0	14.4	32.1	14.1	20.6	9.2	22.2	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	14.4	32.1	14.1	20.6	9.2	22.2	0.9
Queue Length 50th (ft)	8	52	9	38	23	1	7	0
Queue Length 95th (ft)	45	164	46	121	71	22	56	0
Internal Link Dist (ft)		1258		2463		273	190	
Turn Bay Length (ft)	410		265		140			95
Base Capacity (vph)	197	2868	197	2891	1180	1030	241	398
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.28	0.17	0.21	0.08	0.04	0.25	0.15

Intersection Summary

24: Sierra College Blvd & Project Driveway

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	107	98	542	249	57	1445	574	240	1493
v/c Ratio	0.48	0.33	0.82	0.52	0.47	0.80	0.48	0.82	0.61
Control Delay	39.1	3.1	42.3	7.0	49.3	27.0	2.3	56.5	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	3.1	42.3	7.0	49.3	27.0	2.3	56.5	17.3
Queue Length 50th (ft)	49	0	130	0	27	228	0	114	200
Queue Length 95th (ft)	97	2	#221	45	#73	302	40	#246	266
Internal Link Dist (ft)		477		344		593			344
Turn Bay Length (ft)			150				160	190	
Base Capacity (vph)	280	514	661	638	121	1804	1186	291	2430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.19	0.82	0.39	0.47	0.80	0.48	0.82	0.61

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	6	420	785	430	185	1265	460	6	25
v/c Ratio	0.12	1.25	1.01	1.51	0.28	1.40	0.45	0.10	0.33
Control Delay	75.2	181.1	47.6	287.5	35.5	217.2	3.5	73.8	45.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.2	181.1	47.6	287.5	35.5	217.2	3.5	73.8	45.0
Queue Length 50th (ft)	6	~519	~269	~591	126	~1674	6	6	6
Queue Length 95th (ft)	21	#628	#362	#701	187	#1658	32	21	34
Internal Link Dist (ft)		684			870		8220		1542
Turn Bay Length (ft)	250		520	360				200	
Base Capacity (vph)	52	337	779	285	656	903	1012	62	76
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	1.25	1.01	1.51	0.28	1.40	0.45	0.10	0.33

Intersection Summary

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

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

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	316	1244	188	1027
v/c Ratio	0.67	0.78	0.68	0.42
Control Delay	12.4	18.9	39.3	4.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.4	18.9	39.3	4.7
Queue Length 50th (ft)	11	175	63	52
Queue Length 95th (ft)	72	#328	#167	129
Internal Link Dist (ft)	845	10454		2201
Turn Bay Length (ft)	1450		100	
Base Capacity (vph)	711	1680	291	2562
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	0.74	0.65	0.40

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	615	334	139	187	562	25	316	172
v/c Ratio	0.96	0.50	0.65	0.83	0.87	0.32	0.72	0.36
Control Delay	63.8	20.0	61.0	78.3	51.3	65.6	51.6	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.8	20.0	61.0	78.3	51.3	65.6	51.6	12.7
Queue Length 50th (ft)	447	112	97	137	405	18	219	21
Queue Length 95th (ft)	361	97	105	145	335	33	207	25
Internal Link Dist (ft)	422		500		2517		526	
Turn Bay Length (ft)		30		150		140		115
Base Capacity (vph)	642	664	283	237	647	79	439	473
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.50	0.49	0.79	0.87	0.32	0.72	0.36

Intersection Summary

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	124	337	266	171
v/c Ratio	0.38	0.45	0.70	0.13
Control Delay	9.5	14.0	31.1	3.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.5	14.0	31.1	3.3
Queue Length 50th (ft)	3	67	68	12
Queue Length 95th (ft)	37	140	#171	32
Internal Link Dist (ft)	429	6529		184
Turn Bay Length (ft)	495		85	
Base Capacity (vph)	691	745	385	1366
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.45	0.69	0.13

Intersection Summary

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

Project Driveway Option B

Existing plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-

Cumulative Short-Term plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-

Cumulative Long-Term plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	160	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-

Cumulative-Long TermP AM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	108	1	#84	210	-	-	-	-	**#317**	-	53
8	Sierra College Boulevard & Granite Drive	**#472**	222	-	118	**#642**	69	109	28	34	**#278**	58	-
21	Sierra College Boulevard & Driveway South of Brace Road	20	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	#121	113	18	63	**380**	-	24	-	-	#77	-	-
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Long TermP PM

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	**763**	141	**#675**	270	-	-	-	**#986**	**#329**	-	55
8	Sierra College Boulevard & Granite Drive	**#363**	**#791**	-	#203	**#638**	92	**#599**	50	44	**192**	61	22
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	8	-	-	-
24	Sierra College Boulevard & Project Driveway	81	**#779**	104	189	**411**	-	#160	24	-	**#251**	39	-
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Long TermP SAT

Intersection #	Street Name North-South	95th Percentile Queues											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	287	34	**#326**	158	-	-	-	#236	**#233**	-	37
8	Sierra College Boulevard & Granite Drive	**#247**	**368**	-	#140	366	79	**#315**	38	35	**188**	50	2
21	Sierra College Boulevard & Driveway South of Brace Road	5	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	69	#371	83	**202**	256	-	105	10	-	**#205**	-	-
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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

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

Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Long TermP AM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	2.44%	7.41%	0.00%	1.12%	0.00%	-	-	0.00%	0.67%	-	0.00%
8	0.00%	10.68%	10.00%	0.00%	5.42%	1.36%	2.78%	9.09%	0.00%	5.88%	3.23%	0.00%
21	0.00%	2.59%	-	-	1.06%	0.00%	-	-	-	-	-	-
24	0.00%	0.00%	100.00%	100.00%	0.00%	0.00%	0.00%	-	0.00%	100.00%	-	100.00%
25	-	-	-	-	-	-	-	1.87%	-	-	0.39%	-

Notes:

Shading indicates Project impact.

Cumulative Long TermP PM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	3.08%	0.79%	2.17%	4.30%	0.00%	-	-	0.00%	5.41%	0.00%	0.00%
8	0.00%	12.07%	34.52%	0.00%	14.80%	3.65%	1.66%	7.41%	0.00%	20.00%	6.25%	0.00%
21	0.00%	2.73%	-	-	3.22%	0.00%	-	-	0.00%	-	-	-
24	0.00%	0.00%	100.00%	100.00%	0.00%	0.00%	0.00%	-	0.00%	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.43%	100.00%	-	2.54%	-

Notes:

Shading indicates Project impact.

Cumulative Long TermP SAT

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	8.94%	2.10%	6.00%	9.43%	0.00%	-	-	0.00%	9.45%	-	0.00%
8	0.00%	23.02%	40.97%	0.00%	22.18%	6.40%	4.76%	16.67%	0.00%	28.57%	11.76%	0.00%
21	0.00%	7.76%	-	-	7.85%	-	-	-	-	-	-	-
24	0.00%	-8.73%	100.00%	100.00%	-8.12%	0.00%	0.00%	-	0.00%	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	1.15%	100.00%	-	5.80%	-

Notes:

Shading indicates Project impact.

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	69	316	234	916	29	85	2060
v/c Ratio	0.23	1.82	0.50	0.38	0.03	0.58	0.65
Control Delay	1.8	412.3	8.3	10.6	0.2	44.1	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.8	412.3	8.3	10.6	0.2	44.1	8.5
Queue Length 50th (ft)	0	~184	6	78	0	30	162
Queue Length 95th (ft)	0	#317	53	108	1	#84	210
Internal Link Dist (ft)				226			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	545	174	802	2431	1150	157	3166
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	1.82	0.29	0.38	0.03	0.54	0.65

Intersection Summary

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

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	75	11	130	177	32	26	365	1148	83	2038	153
v/c Ratio	0.53	0.11	0.50	0.87	0.24	0.12	0.90	0.41	0.55	0.92	0.21
Control Delay	66.6	56.8	16.2	90.1	56.9	1.2	71.6	14.2	66.8	39.6	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.0
Total Delay	66.6	56.8	16.2	90.1	56.9	1.2	71.6	14.6	66.8	39.7	8.9
Queue Length 50th (ft)	57	8	0	138	24	0	278	164	63	534	24
Queue Length 95th (ft)	109	28	34	#278	58	0	#472	222	118	#642	69
Internal Link Dist (ft)		707			411			403		628	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	183	429	701	203	446	467	405	2834	193	2226	745
Starvation Cap Reductn	0	0	0	0	0	0	0	1014	0	7	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.03	0.19	0.87	0.07	0.06	0.90	0.63	0.43	0.92	0.21

Intersection Summary

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

24: Sierra College Blvd & Project Driveway

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	14	36	154	63	101	897	157	61	2290
v/c Ratio	0.12	0.14	0.61	0.14	0.65	0.28	0.12	0.34	0.78
Control Delay	36.5	1.2	46.0	0.7	55.0	8.5	1.2	37.2	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	1.2	46.0	0.7	55.0	8.5	1.2	37.2	15.3
Queue Length 50th (ft)	7	0	38	0	48	85	0	28	310
Queue Length 95th (ft)	24	0	#77	0	#121	113	18	63	380
Internal Link Dist (ft)		586		351		628			307
Turn Bay Length (ft)			150				160	190	
Base Capacity (vph)	120	496	252	599	156	3182	1280	210	2922
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.07	0.61	0.11	0.65	0.28	0.12	0.29	0.78

Intersection Summary

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

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	568	116	135	2198	394	335	1475
v/c Ratio	1.45	2.11	0.26	0.84	0.38	1.43	0.43
Control Delay	254.6	587.3	7.9	36.4	7.5	260.9	12.3
Queue Delay	0.0	0.0	0.0	28.9	0.0	0.0	0.4
Total Delay	254.6	587.3	7.9	65.3	7.5	260.9	12.7
Queue Length 50th (ft)	~744	~191	0	699	74	~470	240
Queue Length 95th (ft)	#986	#329	55	763	141	#675	270
Internal Link Dist (ft)				226			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	391	55	512	2630	1040	235	3397
Starvation Cap Reductn	0	0	0	551	0	0	1267
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.45	2.11	0.26	1.06	0.38	1.43	0.69

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	449	29	303	160	34	96	234	2345	106	1948	204
v/c Ratio	1.02	0.09	0.42	0.69	0.30	0.43	0.98	0.95	0.92	0.92	0.28
Control Delay	93.9	45.6	7.0	66.1	61.4	9.2	107.6	39.8	122.4	42.6	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	0.0	0.0
Total Delay	93.9	45.6	7.0	66.1	61.4	9.2	107.6	84.2	122.4	42.6	10.2
Queue Length 50th (ft)	~368	20	0	123	26	0	188	630	85	527	36
Queue Length 95th (ft)	#599	50	44	192	61	22	#363	#791	#203	#638	92
Internal Link Dist (ft)		707			466			403		618	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	441	564	1053	315	446	474	238	2472	115	2112	730
Starvation Cap Reductn	0	0	0	0	0	0	0	542	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.05	0.29	0.51	0.08	0.20	0.98	1.22	0.92	0.92	0.28

Intersection Summary

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

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

24: Sierra College Blvd & Project Driveway

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	114	90	402	182	52	2421	387	161	1955
v/c Ratio	0.67	0.45	0.87	0.53	0.42	0.90	0.33	0.69	0.64
Control Delay	70.5	10.6	69.8	9.0	62.7	31.2	3.7	63.6	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.3
Total Delay	70.5	10.6	69.8	9.0	62.7	36.5	3.7	63.6	16.6
Queue Length 50th (ft)	84	0	155	0	38	574	35	117	337
Queue Length 95th (ft)	#160	23	#250	39	81	#779	86	189	411
Internal Link Dist (ft)		536		371		618			317
Turn Bay Length (ft)			150				160	190	
Base Capacity (vph)	185	354	461	473	144	2677	1176	299	3073
Starvation Cap Reductn	0	0	0	0	0	220	0	0	456
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.25	0.87	0.38	0.36	0.99	0.33	0.54	0.75

Intersection Summary

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

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	281	132	83	1433	298	260	1374
v/c Ratio	0.85	1.36	0.22	0.64	0.29	0.92	0.42
Control Delay	47.2	251.5	8.6	21.3	2.0	77.3	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	251.5	8.6	21.3	2.0	77.3	8.0
Queue Length 50th (ft)	100	~115	0	239	0	167	131
Queue Length 95th (ft)	#236	#233	37	287	34	#326	158
Internal Link Dist (ft)				226			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	361	97	446	2536	1028	284	3575
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	1.36	0.19	0.57	0.29	0.92	0.38

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	306	25	219	204	35	68	219	1666	104	1513	211
v/c Ratio	0.78	0.12	0.43	0.70	0.25	0.27	0.77	0.75	0.65	0.81	0.31
Control Delay	50.0	38.0	8.3	49.1	44.1	2.6	56.8	24.4	61.7	30.9	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
Total Delay	50.0	38.0	8.3	49.1	44.1	2.6	56.8	24.9	61.7	30.9	7.4
Queue Length 50th (ft)	170	13	0	112	20	0	124	293	60	291	18
Queue Length 95th (ft)	#315	38	35	188	50	2	#247	368	#140	366	68
Internal Link Dist (ft)		707			437			403		597	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	390	659	1146	341	584	625	284	2208	159	1859	680
Starvation Cap Reductn	0	0	0	0	0	0	0	177	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.04	0.19	0.60	0.06	0.11	0.77	0.82	0.65	0.81	0.31

Intersection Summary

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

24: Sierra College Blvd & Project Driveway

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	107	98	477	262	57	1445	505	253	1493
v/c Ratio	0.50	0.38	0.78	0.47	0.44	0.78	0.44	0.72	0.56
Control Delay	44.0	5.3	44.4	2.9	50.6	28.6	2.7	43.8	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	5.3	44.4	2.9	50.6	28.6	2.7	43.8	15.7
Queue Length 50th (ft)	56	0	131	0	31	256	5	132	207
Queue Length 95th (ft)	105	10	#205	0	69	#371	52	202	256
Internal Link Dist (ft)		477		344		597			338
Turn Bay Length (ft)			150				160	190	
Base Capacity (vph)	272	476	634	701	132	1863	1148	465	2649
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.21	0.75	0.37	0.43	0.78	0.44	0.54	0.56

Intersection Summary

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

Project Driveway Option C

Existing plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

Cumulative Short-Term plus Project Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	-	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
26	Sierra College Boulevard/Sierra College Blvd & SR 193	-	900	40	-	150	-	-	1,900	600	465	2,500	-
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

Cumulative Long-Term Conditions - Storage Length

Intersection #	Street Name North-South	Storage Length (feet)											
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	620	620	170	520	-	-	-	860	100	-	1,000
8	Sierra College Boulevard & Granite Drive	265	370	365	305	1,250	220	185	2,550	2,550	160	600	160
21	Sierra College Boulevard & Driveway South of Brace Road	95	415	-	-	220	-	-	-	60	-	-	-
24	Sierra College Boulevard & Project Driveway	160	550	160	190	390	-	-	-	-	150	-	150
25	Brace Road & Project Driveway	-	-	120	-	-	-	-	190	-	-	430	-
37	Project Driveway East & Brace Road	-	150	-	-	-	-	-	430	-	200	215	-

Cumulative-Long TermP AM

Intersection #	Street Name North-South	95th Percentile Queues NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	138	-	#74	288	-	-	-	-	**#212**	-	38
8	Sierra College Boulevard & Granite Drive	**#472**	223	-	118	**#642**	69	109	28	34	**#278**	58	-
21	Sierra College Boulevard & Driveway South of Brace Road	20	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	#121	109	17	63	**383**	-	24	-	-	#74	-	-
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
37	Taylor Road & Webb Street	-	0	-	-	-	-	-	-	-	0	-	-

Notes:
- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m - Volume for 95th percentile queue is metered by upstream signal.
Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Long TermP PM

Intersection #	Street Name North-South	95th Percentile Queues NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	**#842**	140	**#525**	280	-	-	-	**#768**	**#224**	-	46
8	Sierra College Boulevard & Granite Drive	**#363**	**#791**	-	#203	**#638**	92	**#599**	50	44	**192**	61	22
21	Sierra College Boulevard & Driveway South of Brace Road	3	-	-	-	-	-	-	-	8	-	-	-
24	Sierra College Boulevard & Project Driveway	77	**645**	70	**#236**	**431**	-	#157	19	-	**#239**	77	-
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
37	Taylor Road & Webb Street	-	3	-	-	-	-	-	-	-	0	-	-

Notes:
- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m - Volume for 95th percentile queue is metered by upstream signal.
Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Long TermP SAT

Intersection #	Street Name North-South	95th Percentile Queues NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	Sierra College Boulevard & Brace Road	-	231	29	**#223**	123	-	-	-	#164	**#118**	-	23
8	Sierra College Boulevard & Granite Drive	**#247**	**368**	-	#140	366	79	**#315**	38	35	**188**	50	2
21	Sierra College Boulevard & Driveway South of Brace Road	5	-	-	-	-	-	-	-	-	-	-	-
24	Sierra College Boulevard & Project Driveway	#74	302	47	**#241**	263	-	98	2	-	**#196**	41	-
25	Brace Road & Project Driveway	-	-	-	-	-	-	-	-	-	-	-	-
37	Taylor Road & Webb Street	-	5	-	-	-	-	-	-	-	3	-	-

Notes:
- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m - Volume for 95th percentile queue is metered by upstream signal.
Bold indicated queues in excess of capacity. Shading indicates Project impact.

Cumulative-Long TermP AM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	2.21%	0.00%	0.00%	1.12%	0.00%	-	-	0.00%	0.00%	-	0.90%
8	0.00%	10.68%	10.00%	0.00%	5.42%	1.36%	2.78%	9.09%	0.00%	5.88%	3.23%	0.00%
21	0.00%	2.15%	-	-	0.97%	0.00%	-	-	-	-	-	-
24	0.00%	-4.24%	100.00%	100.00%	-1.59%	0.00%	0.00%	-	0.00%	100.00%	-	100.00%
25	-	-	-	-	-	-	-	0.00%	-	-	0.39%	-
37	100.00%	-	100.00%	-	-	-	-	0.00%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

Cumulative Long TermP PM

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	2.94%	0.00%	2.17%	4.30%	0.00%	-	-	0.00%	0.00%	0.00%	2.26%
8	0.00%	12.07%	34.52%	0.00%	14.80%	3.65%	1.66%	7.41%	0.00%	20.00%	6.25%	0.00%
21	0.00%	2.50%	-	-	2.92%	0.00%	-	-	0.00%	-	-	-
24	0.00%	-4.18%	100.00%	100.00%	-4.95%	0.00%	0.00%	-	0.00%	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	1.29%	-
37	100.00%	-	100.00%	-	-	-	-	0.43%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

Cumulative Long TermP SAT

ID	Project Trips Percent Contribution											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7	-	8.54%	0.00%	6.00%	9.43%	0.00%	-	-	0.00%	0.00%	-	6.98%
8	0.00%	23.02%	40.97%	0.00%	22.18%	6.40%	4.76%	16.67%	0.00%	28.57%	11.76%	0.00%
21	0.00%	7.09%	-	-	7.15%	-	-	-	-	-	-	-
24	0.00%	-8.73%	100.00%	100.00%	-8.12%	0.00%	0.00%	-	0.00%	100.00%	-	100.00%
25	-	-	100.00%	-	-	-	-	0.00%	100.00%	-	2.99%	-
37	100.00%	-	100.00%	-	-	-	-	1.15%	100.00%	100.00%	0.00%	-

Notes:

Shading indicates Project impact.

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	69	314	236	914	27	85	2060
v/c Ratio	0.26	0.76	0.38	0.45	0.02	0.55	0.79
Control Delay	2.3	34.7	4.2	15.1	0.0	39.6	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.3	34.7	4.2	15.1	0.0	39.6	15.1
Queue Length 50th (ft)	0	105	0	101	0	30	223
Queue Length 95th (ft)	0	#212	38	138	0	#74	288
Internal Link Dist (ft)				219			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	267	463	736	2033	1247	188	2616
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.68	0.32	0.45	0.02	0.45	0.79

Intersection Summary

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	75	11	130	177	32	26	365	1148	83	2038	153
v/c Ratio	0.53	0.11	0.50	0.87	0.24	0.12	0.90	0.41	0.55	0.92	0.21
Control Delay	66.6	56.8	16.2	90.1	56.9	1.2	71.6	14.2	66.8	39.6	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	2.6	0.0
Total Delay	66.6	56.8	16.2	90.1	56.9	1.2	71.6	14.6	66.8	42.2	8.9
Queue Length 50th (ft)	57	8	0	138	24	0	278	164	63	534	24
Queue Length 95th (ft)	109	28	34	#278	58	0	#472	223	118	#642	69
Internal Link Dist (ft)		707			474			403		599	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	183	429	701	203	446	467	405	2832	193	2226	745
Starvation Cap Reductn	0	0	0	0	0	0	0	1013	0	109	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.03	0.19	0.87	0.07	0.06	0.90	0.63	0.43	0.96	0.21

Intersection Summary

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

24: Sierra College Blvd & Project Driveway

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	14	36	154	59	101	897	157	59	2290
v/c Ratio	0.12	0.15	0.60	0.13	0.64	0.28	0.12	0.36	0.79
Control Delay	36.5	1.2	44.8	0.6	54.9	8.1	1.1	39.2	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	1.2	44.8	0.6	54.9	8.1	1.1	39.2	15.5
Queue Length 50th (ft)	7	0	38	0	48	83	0	27	312
Queue Length 95th (ft)	24	0	#74	0	#121	109	17	63	383
Internal Link Dist (ft)		586		351		599			343
Turn Bay Length (ft)			150				160	190	
Base Capacity (vph)	121	494	257	603	157	3219	1293	176	2912
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.07	0.60	0.10	0.64	0.28	0.12	0.34	0.79

Intersection Summary

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

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	568	109	139	2195	391	335	1475
v/c Ratio	1.26	1.07	0.23	1.07	0.42	1.16	0.49
Control Delay	167.2	165.6	5.8	78.8	8.5	152.1	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	167.2	165.6	5.8	78.8	8.5	152.1	15.4
Queue Length 50th (ft)	~538	~101	0	~749	66	~334	242
Queue Length 95th (ft)	#768	#224	46	#842	140	#525	280
Internal Link Dist (ft)				226			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	452	102	606	2053	934	288	3007
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	1.07	0.23	1.07	0.42	1.16	0.49

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	449	29	303	160	34	96	234	2345	106	1948	204
v/c Ratio	1.02	0.09	0.42	0.69	0.30	0.43	0.98	0.95	0.92	0.92	0.28
Control Delay	93.9	45.6	7.0	66.1	61.4	9.2	107.6	39.9	122.4	42.6	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	1.2	0.0
Total Delay	93.9	45.6	7.0	66.1	61.4	9.2	107.6	84.2	122.4	43.8	10.2
Queue Length 50th (ft)	~368	20	0	123	26	0	188	630	85	527	36
Queue Length 95th (ft)	#599	50	44	192	61	22	#363	#791	#203	#638	92
Internal Link Dist (ft)		707			482			403		594	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	441	564	1053	315	446	474	238	2471	115	2112	730
Starvation Cap Reductn	0	0	0	0	0	0	0	542	0	54	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.05	0.29	0.51	0.08	0.20	0.98	1.22	0.92	0.95	0.28

Intersection Summary

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

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

24: Sierra College Blvd & Project Driveway

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	114	90	402	175	52	2421	387	154	1955
v/c Ratio	0.66	0.41	0.82	0.62	0.40	0.87	0.31	0.86	0.65
Control Delay	66.4	8.3	60.7	20.0	57.6	26.1	2.4	87.2	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.1
Total Delay	66.4	8.3	60.7	20.0	57.6	28.3	2.4	87.2	17.1
Queue Length 50th (ft)	76	0	141	11	35	504	20	106	327
Queue Length 95th (ft)	#157	19	#239	77	77	645	57	#236	431
Internal Link Dist (ft)		536		371		594			341
Turn Bay Length (ft)			150				160	190	
Base Capacity (vph)	185	375	488	441	150	2778	1230	180	3011
Starvation Cap Reductn	0	0	0	0	0	229	0	0	204
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.24	0.82	0.40	0.35	0.95	0.31	0.86	0.70

Intersection Summary

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

7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	281	120	90	1427	292	260	1374
v/c Ratio	0.83	0.78	0.22	0.78	0.29	0.91	0.46
Control Delay	34.2	65.6	4.9	21.9	2.0	64.7	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	65.6	4.9	21.9	2.0	64.7	7.8
Queue Length 50th (ft)	37	48	0	180	0	102	94
Queue Length 95th (ft)	#156	#129	23	231	30	#223	123
Internal Link Dist (ft)				224			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	338	153	463	1833	990	298	3015
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.78	0.19	0.78	0.29	0.87	0.46

Intersection Summary

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	306	25	219	204	35	68	219	1666	104	1513	211
v/c Ratio	0.78	0.12	0.43	0.70	0.25	0.27	0.77	0.76	0.65	0.81	0.31
Control Delay	50.0	38.0	8.3	49.1	44.1	2.6	56.8	24.4	61.7	30.9	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Total Delay	50.0	38.0	8.3	49.1	44.1	2.6	56.8	24.9	61.7	30.9	7.4
Queue Length 50th (ft)	170	13	0	112	20	0	124	293	60	291	18
Queue Length 95th (ft)	#315	38	35	188	50	2	#247	368	#140	366	68
Internal Link Dist (ft)		707			455			403		593	
Turn Bay Length (ft)	185			160		160	265		305		220
Base Capacity (vph)	390	659	1146	341	584	625	284	2206	159	1859	680
Starvation Cap Reductn	0	0	0	0	0	0	0	177	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.04	0.19	0.60	0.06	0.11	0.77	0.82	0.65	0.81	0.31

Intersection Summary

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

24: Sierra College Blvd & Project Driveway

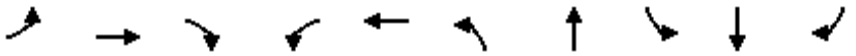
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	107	98	477	249	57	1445	505	240	1493
v/c Ratio	0.48	0.33	0.78	0.53	0.47	0.79	0.44	0.79	0.60
Control Delay	39.2	3.1	41.4	7.0	49.4	26.3	2.2	51.6	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.2	3.1	41.4	7.0	49.4	26.3	2.2	51.6	16.5
Queue Length 50th (ft)	49	0	114	0	27	227	0	113	194
Queue Length 95th (ft)	98	2	#196	41	#74	302	40	#241	263
Internal Link Dist (ft)		477		344		593			344
Turn Bay Length (ft)			150				160	190	
Base Capacity (vph)	281	515	617	627	121	1836	1152	306	2501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.19	0.77	0.40	0.47	0.79	0.44	0.78	0.60

Intersection Summary

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

Existing Plus Project with Mitigation Conditions

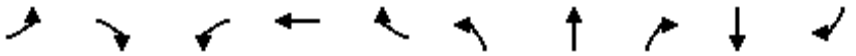
Project Driveway Option A



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	187	28	306	114	61	232	1289	65	1254	95
v/c Ratio	0.62	0.12	0.49	0.36	0.37	0.94	0.49	0.40	0.80	0.12
Control Delay	46.1	35.7	7.3	42.3	28.1	84.0	16.3	47.1	27.4	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	46.1	35.7	7.3	42.3	28.1	84.0	16.4	47.1	27.4	2.2
Queue Length 50th (ft)	102	14	0	32	15	136	183	36	327	0
Queue Length 95th (ft)	#183	40	39	59	53	#291	245	79	443	18
Internal Link Dist (ft)		707			508		403		598	
Turn Bay Length (ft)	185			60		265		305		220
Base Capacity (vph)	309	692	1226	419	574	248	2620	192	1566	766
Starvation Cap Reductn	0	0	0	0	0	0	371	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.04	0.25	0.27	0.11	0.94	0.57	0.34	0.80	0.12

Intersection Summary

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



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	82	120	485	248	233	289	1113	279	1564	100
v/c Ratio	0.73	0.29	0.49	0.79	0.67	1.20	0.38	0.27	0.81	0.14
Control Delay	74.9	5.2	24.9	44.3	25.7	156.4	10.1	2.1	26.8	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.9	5.2	24.9	44.3	25.7	156.4	10.1	2.1	26.8	4.4
Queue Length 50th (ft)	41	0	102	103	56	~177	99	0	247	0
Queue Length 95th (ft)	#126	24	144	186	132	#360	159	35	#365	29
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	113	407	2065	802	772	241	2927	1037	1924	692
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.29	0.23	0.31	0.30	1.20	0.38	0.27	0.81	0.14

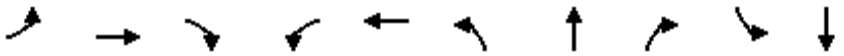
Intersection Summary

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

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

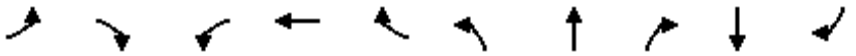
Queues
1: Taylor Rd & King Rd

02/21/2019



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	62	54	232	193	108	233	278	152	27	332
v/c Ratio	0.31	0.27	0.60	0.59	0.33	0.55	0.35	0.21	0.19	0.56
Control Delay	32.0	31.2	11.7	32.5	23.7	29.5	16.5	4.4	34.7	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	31.2	11.7	32.5	23.7	29.5	16.5	4.4	34.7	28.2
Queue Length 50th (ft)	22	19	0	67	31	76	59	0	10	58
Queue Length 95th (ft)	55	49	42	126	69	157	150	28	33	99
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	755	753	819	807	790	442	947	832	145	1147
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.07	0.28	0.24	0.14	0.53	0.29	0.18	0.19	0.29

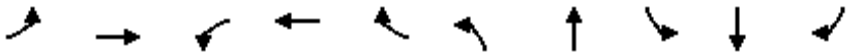
Intersection Summary



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	83	302	424	292	265	354	766	255	1310	85
v/c Ratio	0.84	0.55	0.40	0.82	0.67	0.90	0.26	0.25	0.83	0.15
Control Delay	102.2	13.7	26.5	48.7	25.4	64.2	10.3	2.1	35.1	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.2	13.7	26.5	48.7	25.4	64.2	10.3	2.1	35.1	5.2
Queue Length 50th (ft)	50	38	103	152	73	208	73	0	253	0
Queue Length 95th (ft)	#155	119	144	250	163	#436	123	36	361	29
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	99	553	1836	719	694	394	3164	1072	1766	639
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.55	0.23	0.41	0.38	0.90	0.24	0.24	0.74	0.13

Intersection Summary

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



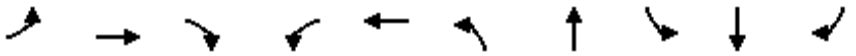
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	203	435	23	414	444	46	39	211	214	206
v/c Ratio	0.65	0.28	0.17	0.47	0.63	0.27	0.22	0.57	0.58	0.41
Control Delay	42.4	15.9	40.9	26.8	7.2	40.5	24.9	33.5	33.6	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	15.9	40.9	26.8	7.2	40.5	24.9	33.5	33.6	6.8
Queue Length 50th (ft)	89	58	10	88	0	21	7	94	95	0
Queue Length 95th (ft)	#211	130	38	146	73	60	40	177	180	51
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150			325		
Base Capacity (vph)	352	1753	133	1314	837	172	181	740	743	795
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.25	0.17	0.32	0.53	0.27	0.22	0.29	0.29	0.26

Intersection Summary

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

Project Driveway Option B

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	76	25	114	166	73	234	730	93	929	89
v/c Ratio	0.51	0.12	0.28	0.57	0.33	0.92	0.32	0.44	0.67	0.13
Control Delay	45.5	28.8	8.7	40.3	23.3	73.5	11.7	36.0	18.3	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.5	28.8	8.7	40.3	23.3	73.5	11.7	36.0	18.3	2.9
Queue Length 50th (ft)	29	9	0	32	16	93	64	34	151	0
Queue Length 95th (ft)	#97	32	23	#84	55	#263	96	#89	224	19
Internal Link Dist (ft)		707			450		403		628	
Turn Bay Length (ft)	185			160		265		305		220
Base Capacity (vph)	150	870	1280	291	833	255	2739	226	1954	916
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.03	0.09	0.57	0.09	0.92	0.27	0.41	0.48	0.10

Intersection Summary

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

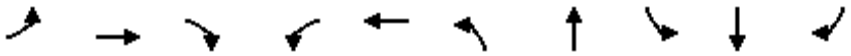
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	148	111	122	1025	124	110	835
v/c Ratio	0.41	0.35	0.28	0.67	0.16	0.81	0.39
Control Delay	3.4	22.8	2.8	18.2	2.1	72.8	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.4	22.8	2.8	18.2	2.1	72.8	8.9
Queue Length 50th (ft)	0	33	0	149	0	37	81
Queue Length 95th (ft)	0	72	13	#276	18	#123	143
Internal Link Dist (ft)			227	226			582
Turn Bay Length (ft)		100				170	
Base Capacity (vph)	361	478	563	1522	787	135	2151
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.23	0.22	0.67	0.16	0.81	0.39

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	185	30	306	146	63	232	1289	65	1222	93
v/c Ratio	0.71	0.15	0.54	0.45	0.38	0.77	0.47	0.41	0.79	0.12
Control Delay	55.3	38.9	8.5	44.1	28.9	55.4	14.6	47.6	27.4	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	55.3	38.9	8.5	44.1	28.9	55.4	14.8	47.6	27.4	2.0
Queue Length 50th (ft)	106	16	0	41	16	130	169	36	315	0
Queue Length 95th (ft)	#223	43	40	73	55	#257	230	79	428	17
Internal Link Dist (ft)		707			523		403		648	
Turn Bay Length (ft)	185			160		265		305		220
Base Capacity (vph)	261	650	1170	361	568	301	2735	190	1542	757
Starvation Cap Reductn	0	0	0	0	0	0	483	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.05	0.26	0.40	0.11	0.77	0.57	0.34	0.79	0.12

Intersection Summary

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

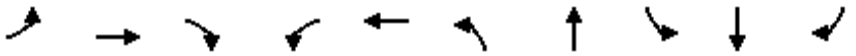
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	97	90	734	99	95	746
v/c Ratio	0.17	0.32	0.21	0.45	0.12	0.54	0.35
Control Delay	0.9	21.1	1.2	14.4	1.1	36.3	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.9	21.1	1.2	14.4	1.1	36.3	7.8
Queue Length 50th (ft)	0	27	0	95	0	27	66
Queue Length 95th (ft)	0	62	1	157	8	#83	113
Internal Link Dist (ft)			259	226			582
Turn Bay Length (ft)		100				170	
Base Capacity (vph)	428	699	724	1626	834	198	2167
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.14	0.12	0.45	0.12	0.48	0.34

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	136	28	213	181	53	206	1023	67	982	117
v/c Ratio	0.48	0.14	0.43	0.57	0.26	0.94	0.44	0.39	0.69	0.17
Control Delay	40.1	29.6	7.9	37.7	22.0	83.2	12.2	36.7	18.5	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	29.6	7.9	37.7	22.0	83.2	12.2	36.7	18.5	3.3
Queue Length 50th (ft)	53	10	0	35	11	80	93	25	156	0
Queue Length 95th (ft)	#168	34	31	#82	43	#234	132	68	228	25
Internal Link Dist (ft)		707			486		403		658	
Turn Bay Length (ft)	185			160		265		305		220
Base Capacity (vph)	284	861	1427	320	813	218	2797	176	1891	898
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.03	0.15	0.57	0.07	0.94	0.37	0.38	0.52	0.13

Intersection Summary

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

Project Driveway Option C

See Option A or B as noted in study

Cumulative Conditions – Short Term Plus Project with Mitigation Measures

Project Driveway Option A

8: Sierra College Blvd & Granite Dr

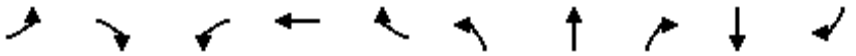
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	114	24	251	155	43	29	276	860	106	93	1466
v/c Ratio	0.86	0.19	0.44	0.75	0.33	0.11	0.98	0.31	0.12	0.53	0.55
Control Delay	96.6	48.5	19.3	68.2	51.6	0.9	87.5	7.6	1.7	54.6	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.6	48.5	19.3	68.2	51.6	0.9	87.5	7.6	1.7	54.6	17.3
Queue Length 50th (ft)	77	16	51	94	28	0	~220	78	0	60	221
Queue Length 95th (ft)	#182	41	65	#249	62	0	#373	137	8	108	282
Internal Link Dist (ft)		707			532			403			593
Turn Bay Length (ft)	185			60		150	265			305	
Base Capacity (vph)	133	498	576	208	503	550	282	2801	871	211	2660
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	2	0	0	0	0	0	0	0	106
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.05	0.44	0.75	0.09	0.05	0.98	0.31	0.12	0.44	0.57

Intersection Summary

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

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

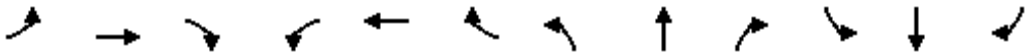
9: Sierra College Blvd & I-80 WB Ramps



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	22	98	695	78	363	119	971	216	1813	69
v/c Ratio	0.26	0.48	0.82	0.20	0.51	0.74	0.31	0.22	0.71	0.07
Control Delay	56.0	19.0	45.1	35.5	18.4	62.1	4.9	0.5	11.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	19.0	45.1	35.5	18.4	62.1	4.9	0.5	11.2	0.1
Queue Length 50th (ft)	15	7	227	41	49	42	39	0	143	0
Queue Length 95th (ft)	41	53	269	84	100	m#85	65	2	167	m0
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530	740		740	200		325		150
Base Capacity (vph)	85	206	1586	691	1113	160	3150	996	2553	951
Starvation Cap Reductn	0	0	0	0	0	0	0	0	2	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.48	0.44	0.11	0.33	0.74	0.31	0.22	0.71	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



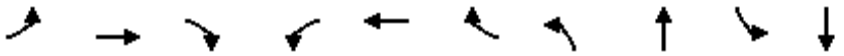
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	212	317	204	548	340	49	181	1283	513	26	865	181
v/c Ratio	0.89	0.78	0.30	1.01	0.73	0.10	0.80	0.86	0.47	0.31	0.88	0.22
Control Delay	80.1	49.8	12.7	82.9	43.7	0.4	67.5	34.4	6.7	55.4	45.6	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.1	49.8	12.7	82.9	43.7	0.4	67.5	34.4	6.7	55.4	45.6	3.2
Queue Length 50th (ft)	136	187	49	~195	195	0	113	358	60	16	280	0
Queue Length 95th (ft)	#269	#282	98	#295	290	0	#217	#577	161	44	#386	35
Internal Link Dist (ft)		429			1915			582			355	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	237	452	701	544	511	543	239	1497	1090	85	986	817
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.70	0.29	1.01	0.67	0.09	0.76	0.86	0.47	0.31	0.88	0.22

Intersection Summary

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

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

8: Sierra College Blvd & Granite Dr



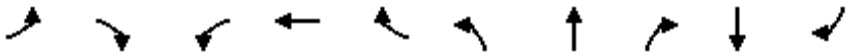
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	210	28	391	114	26	35	381	2042	65	1998
v/c Ratio	0.55	0.27	0.47	0.29	0.26	0.18	0.88	0.72	0.49	1.07
Control Delay	54.7	66.8	26.9	47.2	66.8	2.1	70.7	22.9	71.2	84.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	12.1
Total Delay	54.7	66.8	26.9	47.2	66.8	2.1	70.7	23.4	71.2	96.2
Queue Length 50th (ft)	170	24	82	87	22	0	339	414	56	~710
Queue Length 95th (ft)	254	57	114	147	53	0	#550	417	104	#806
Internal Link Dist (ft)		707			573			403		593
Turn Bay Length (ft)	185			160		160	265		305	
Base Capacity (vph)	380	433	830	395	406	426	434	2840	137	1862
Starvation Cap Reductn	0	0	0	0	0	0	0	377	0	8
Spillback Cap Reductn	0	0	3	0	0	0	0	0	0	415
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.06	0.47	0.29	0.06	0.08	0.88	0.83	0.47	1.38

Intersection Summary

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

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

9: Sierra College Blvd & I-80 WB Ramps



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	213	327	591	146	511	445	1744	417	2136	222
v/c Ratio	0.63	0.65	0.43	0.43	0.87	1.30	0.68	0.41	1.16	0.33
Control Delay	60.6	26.6	29.8	51.8	57.1	189.4	18.7	2.3	93.2	3.4
Queue Delay	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay	62.0	26.6	29.8	51.8	57.1	189.4	18.7	2.3	93.3	3.4
Queue Length 50th (ft)	175	121	191	115	197	~256	247	0	~778	3
Queue Length 95th (ft)	#326	#188	236	170	252	m#323	m348	m35	m#749	m5
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530				200		325		150
Base Capacity (vph)	340	506	1420	538	864	341	2572	1012	1847	670
Starvation Cap Reductn	0	0	0	0	0	0	0	0	73	0
Spillback Cap Reductn	36	0	0	0	2	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.65	0.42	0.27	0.59	1.30	0.68	0.41	1.20	0.33

Intersection Summary

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

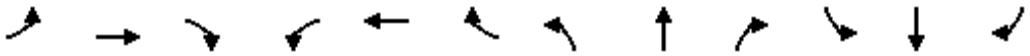
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	36	116	295	17	688	98	356	811
v/c Ratio	0.15	0.49	0.45	0.12	0.85	0.13	0.80	0.59
Control Delay	20.7	33.1	10.3	32.1	30.6	2.1	41.1	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.7	33.1	10.3	32.1	30.6	2.1	41.1	10.1
Queue Length 50th (ft)	10	44	49	7	246	0	139	126
Queue Length 95th (ft)	31	87	95	25	#475	15	#291	#423
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)			160	100		125	190	
Base Capacity (vph)	508	434	679	163	877	773	468	1335
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.27	0.43	0.10	0.78	0.13	0.76	0.61

Intersection Summary

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

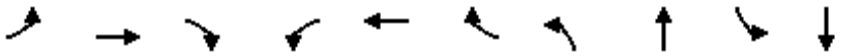


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	148	229	188	589	204	26	191	859	553	31	852	131
v/c Ratio	0.63	0.63	0.28	0.86	0.43	0.05	0.86	0.64	0.50	0.32	0.90	0.18
Control Delay	51.3	43.0	7.3	51.8	33.1	0.2	76.5	28.0	4.4	53.9	48.1	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	43.0	7.3	51.8	33.1	0.2	76.5	28.0	4.4	53.9	48.1	1.9
Queue Length 50th (ft)	84	127	20	176	103	0	114	233	36	18	259	0
Queue Length 95th (ft)	151	202	63	#290	174	0	#254	331	98	50	#408	16
Internal Link Dist (ft)		429			1915			582			326	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	298	480	682	690	529	585	221	1341	1098	96	946	784
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.48	0.28	0.85	0.39	0.04	0.86	0.64	0.50	0.32	0.90	0.17

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



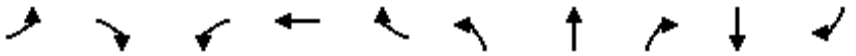
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	166	24	310	123	25	24	314	1850	67	2013
v/c Ratio	0.79	0.20	0.48	0.54	0.25	0.11	1.31	0.57	0.49	0.71
Control Delay	80.3	60.7	17.9	62.7	64.1	1.1	202.8	15.2	68.2	23.0
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.8
Total Delay	80.3	60.7	18.0	62.7	64.1	1.1	202.8	15.3	68.2	25.8
Queue Length 50th (ft)	136	19	46	102	21	0	~338	289	55	456
Queue Length 95th (ft)	#234	48	80	165	50	0	m#480	m326	102	537
Internal Link Dist (ft)		707			491			403		592
Turn Bay Length (ft)	185			60		150	265		305	
Base Capacity (vph)	232	427	647	252	405	469	240	3237	156	2853
Starvation Cap Reductn	0	0	0	0	0	0	0	288	0	452
Spillback Cap Reductn	0	0	21	0	0	0	0	0	0	702
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.06	0.50	0.49	0.06	0.05	1.31	0.63	0.43	0.94

Intersection Summary

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

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

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



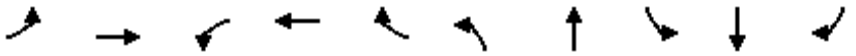
Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	255	573	628	208	510	594	1420	435	2045	272
v/c Ratio	1.48	1.29	0.57	0.59	0.87	1.54	0.47	0.39	0.92	0.35
Control Delay	285.4	182.9	38.4	54.6	54.3	292.8	13.8	1.9	27.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0
Total Delay	285.4	182.9	38.4	54.6	54.3	292.8	13.8	1.9	32.1	7.3
Queue Length 50th (ft)	~296	~566	227	163	188	~366	194	0	300	7
Queue Length 95th (ft)	#469	#795	259	227	242	m#458	m279	m18	#782	m65
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)			220		180	200		325		150
Base Capacity (vph)	172	443	1489	564	878	385	3023	1108	2215	784
Starvation Cap Reductn	0	0	0	0	0	0	0	0	125	0
Spillback Cap Reductn	0	0	0	0	4	0	237	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.48	1.29	0.42	0.37	0.58	1.54	0.51	0.39	0.98	0.35

Intersection Summary

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

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

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



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	297	795	23	769	536	46	39	254	251	290
v/c Ratio	0.83	0.46	0.21	0.77	0.73	0.34	0.26	0.65	0.64	0.50
Control Delay	57.6	18.6	50.1	37.7	14.0	51.2	29.9	40.8	40.4	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.6	18.6	50.1	37.7	14.0	51.2	29.9	40.8	40.4	6.7
Queue Length 50th (ft)	171	140	13	221	50	27	9	146	144	0
Queue Length 95th (ft)	#351	278	42	#336	200	68	44	229	227	60
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150			325		
Base Capacity (vph)	379	1747	108	1050	747	137	149	591	594	731
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.46	0.21	0.73	0.72	0.34	0.26	0.43	0.42	0.40

Intersection Summary

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

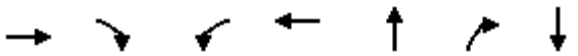
24: Sierra College Blvd & Project Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	542	249	1500	574	240	1624
v/c Ratio	0.66	0.44	0.79	0.50	0.72	0.73
Control Delay	27.8	6.0	23.8	4.8	39.4	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.8	6.0	23.8	4.8	39.4	11.5
Queue Length 50th (ft)	106	0	216	52	96	230
Queue Length 95th (ft)	154	50	#278	107	#181	311
Internal Link Dist (ft)	372		592			347
Turn Bay Length (ft)	150	150		160	190	
Base Capacity (vph)	904	600	1906	1185	375	2227
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.41	0.79	0.48	0.64	0.73

Intersection Summary

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

26: Sierra College Boulevard/Sierra College Blvd & SR 193



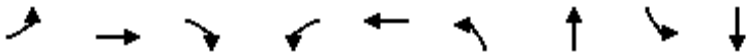
Lane Group	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	248	414	437	220	444	196	20
v/c Ratio	0.69	0.64	0.91	0.27	0.85	0.25	0.19
Control Delay	38.4	8.2	43.1	14.4	42.3	4.1	25.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	8.2	43.1	14.4	42.3	4.1	25.9
Queue Length 50th (ft)	112	0	153	65	201	15	3
Queue Length 95th (ft)	165	43	#233	98	270	30	21
Internal Link Dist (ft)	684			870	10501		1542
Turn Bay Length (ft)		600	465			40	
Base Capacity (vph)	435	690	481	879	601	787	107
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.60	0.91	0.25	0.74	0.25	0.19

Intersection Summary

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

Project Driveway Option B

8: Sierra College Blvd & Granite Dr

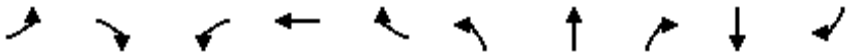


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	113	25	251	166	73	276	966	93	1454
v/c Ratio	0.76	0.19	0.38	0.48	0.49	0.88	0.33	0.56	0.56
Control Delay	83.1	53.5	18.1	55.8	46.6	71.9	9.8	63.8	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.1	53.5	18.1	55.8	46.6	71.9	9.8	63.8	21.6
Queue Length 50th (ft)	87	18	42	64	35	216	128	70	284
Queue Length 95th (ft)	#177	46	67	101	82	#343	186	121	358
Internal Link Dist (ft)		707			424		403		608
Turn Bay Length (ft)	185			160		265		305	
Base Capacity (vph)	156	438	687	359	429	334	2910	198	2608
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	1	0	0	0	0	0	76
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.06	0.37	0.46	0.17	0.83	0.33	0.47	0.57

Intersection Summary

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

9: Sierra College Blvd & I-80 WB Ramps



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	22	98	695	78	363	119	971	216	1813	69
v/c Ratio	0.29	0.44	0.84	0.22	0.53	0.62	0.30	0.21	0.69	0.07
Control Delay	66.0	21.6	52.9	42.5	20.2	62.6	6.3	0.7	10.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.0	21.6	52.9	42.5	20.2	62.6	6.3	0.7	10.9	0.2
Queue Length 50th (ft)	17	14	265	54	58	47	61	0	150	0
Queue Length 95th (ft)	45	67	311	94	106	m#98	89	8	143	m1
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)			220		180	200		325		150
Base Capacity (vph)	75	225	1388	605	1008	191	3251	1021	2632	969
Starvation Cap Reductn	0	0	0	0	0	0	0	0	12	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.44	0.50	0.13	0.36	0.62	0.30	0.21	0.69	0.07

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

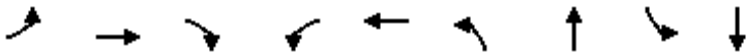
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	148	178	162	1709	199	120	1380
v/c Ratio	0.67	0.57	0.40	0.78	0.18	0.81	0.68
Control Delay	22.8	33.2	8.4	21.1	0.8	72.1	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	33.2	8.4	21.1	0.8	72.1	13.5
Queue Length 50th (ft)	0	74	3	226	0	52	202
Queue Length 95th (ft)	#70	134	49	317	8	#148	318
Internal Link Dist (ft)			224	226			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	220	433	505	2183	1192	153	2026
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.41	0.32	0.78	0.17	0.78	0.68

Intersection Summary

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	207	30	391	146	63	381	2042	65	1964
v/c Ratio	1.20	0.22	0.53	0.44	0.48	1.12	0.63	0.34	0.73
Control Delay	184.5	61.1	32.4	63.5	43.2	130.1	12.0	61.8	26.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.6
Total Delay	184.5	61.1	32.4	63.5	43.2	130.1	12.1	61.8	27.4
Queue Length 50th (ft)	~221	25	115	65	24	~389	476	51	479
Queue Length 95th (ft)	#385	56	152	102	71	m#565	m217	#127	578
Internal Link Dist (ft)		707			559		403		618
Turn Bay Length (ft)	185			160		265		305	
Base Capacity (vph)	172	443	732	330	393	341	3231	195	2695
Starvation Cap Reductn	0	0	0	0	0	0	269	0	0
Spillback Cap Reductn	0	0	2	0	0	0	0	0	341
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.20	0.07	0.54	0.44	0.16	1.12	0.69	0.33	0.83

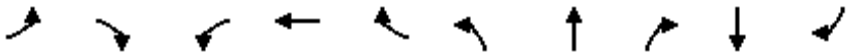
Intersection Summary

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

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

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

9: Sierra College Blvd & I-80 WB Ramps



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	213	327	591	146	511	445	1744	417	2136	222
v/c Ratio	1.30	0.80	0.56	0.43	0.88	1.31	0.57	0.37	0.92	0.27
Control Delay	218.8	54.1	40.7	52.0	57.9	203.8	14.9	1.6	27.1	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Total Delay	218.8	54.1	40.7	52.0	58.0	203.8	14.9	1.6	30.1	6.1
Queue Length 50th (ft)	~240	218	225	116	201	~262	271	0	410	10
Queue Length 95th (ft)	#405	#364	258	170	255	m#357	m361	m14	#832	m38
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)			220		180	200		325		150
Base Capacity (vph)	164	409	1410	534	856	339	3063	1126	2328	815
Starvation Cap Reductn	0	0	0	0	0	0	0	0	122	0
Spillback Cap Reductn	0	0	0	0	3	0	166	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.30	0.80	0.42	0.27	0.60	1.31	0.60	0.37	0.97	0.27

Intersection Summary

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

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

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

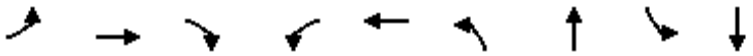
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	156	149	1490	196	105	1491
v/c Ratio	0.25	0.45	0.31	0.76	0.17	0.73	0.77
Control Delay	2.1	24.2	3.3	19.8	1.0	61.7	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.1	24.2	3.3	19.8	1.0	61.7	16.0
Queue Length 50th (ft)	0	51	0	166	0	37	211
Queue Length 95th (ft)	0	100	21	#289	14	#125	#423
Internal Link Dist (ft)			229	226			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	285	562	645	1973	1148	143	1934
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.28	0.23	0.76	0.17	0.73	0.77

Intersection Summary

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

8: Sierra College Blvd & Granite Dr

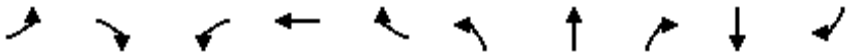


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	161	28	310	181	53	314	1850	67	1950
v/c Ratio	0.78	0.18	0.42	0.48	0.42	0.99	0.61	0.33	0.74
Control Delay	80.3	55.4	27.0	59.4	45.7	97.9	16.1	58.2	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.7
Total Delay	80.3	55.4	27.1	59.4	45.7	97.9	16.2	58.2	28.3
Queue Length 50th (ft)	132	22	76	76	24	278	490	50	479
Queue Length 95th (ft)	#228	52	106	115	66	m#424	m263	105	576
Internal Link Dist (ft)		707			531		403		668
Turn Bay Length (ft)	185			160		265		305	
Base Capacity (vph)	227	421	733	382	345	317	3037	213	2621
Starvation Cap Reductn	0	0	0	0	0	0	225	0	0
Spillback Cap Reductn	0	0	2	0	0	0	0	0	315
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.07	0.42	0.47	0.15	0.99	0.66	0.31	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

9: Sierra College Blvd & I-80 WB Ramps



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	255	573	628	208	510	594	1420	435	2045	272
v/c Ratio	1.48	1.29	0.57	0.59	0.87	1.54	0.47	0.39	0.92	0.35
Control Delay	285.4	182.9	38.4	54.6	54.3	292.8	13.8	1.9	27.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0
Total Delay	285.4	182.9	38.4	54.6	54.3	292.8	13.8	1.9	32.1	7.3
Queue Length 50th (ft)	~296	~566	227	163	188	~366	194	0	300	7
Queue Length 95th (ft)	#469	#795	259	227	242	m#458	m279	m18	#782	m65
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)			17		180	200		325		150
Base Capacity (vph)	172	443	1489	564	878	385	3023	1108	2215	784
Starvation Cap Reductn	0	0	0	0	0	0	0	0	125	0
Spillback Cap Reductn	0	0	0	0	4	0	237	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.48	1.29	0.42	0.37	0.58	1.54	0.51	0.39	0.98	0.35

Intersection Summary

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

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

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

Project Driveway Option C

See Option A or B as noted in study

Cumulative Conditions – Long Term Plus Project with Mitigation Measures

Project Driveway Option A

8: Sierra College Blvd & Granite Dr

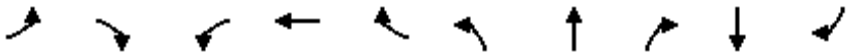
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	76	71	69	167	31	26	365	1148	83	2048	154
v/c Ratio	0.39	0.53	0.39	1.04	0.22	0.12	1.36	0.37	0.58	0.71	0.17
Control Delay	71.0	33.9	7.7	142.7	64.6	1.0	221.2	8.3	79.0	24.3	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	3.2	0.0
Total Delay	71.0	33.9	7.7	142.7	64.6	1.0	221.2	8.5	79.0	27.4	6.7
Queue Length 50th (ft)	36	9	0	~169	28	0	~489	87	77	461	25
Queue Length 95th (ft)	62	63	9	#323	62	0	#700	205	131	571	63
Internal Link Dist (ft)		707			562			403		599	
Turn Bay Length (ft)	185			60		150	265		305		220
Base Capacity (vph)	300	331	363	161	364	407	269	3091	170	2874	929
Starvation Cap Reductn	0	0	0	0	0	0	0	835	0	704	0
Spillback Cap Reductn	0	2	5	0	0	0	0	0	0	263	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.22	0.19	1.04	0.09	0.06	1.36	0.51	0.49	0.94	0.17

Intersection Summary

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

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

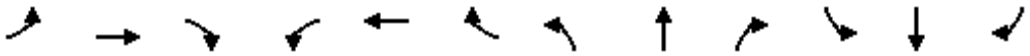
9: Sierra College Blvd & I-80 WB Ramps



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	5	71	799	252	245	87	1136	163	2392	54
v/c Ratio	0.08	0.53	0.89	0.55	0.54	0.71	0.35	0.16	0.88	0.05
Control Delay	70.6	31.5	63.5	30.8	25.0	69.4	2.1	0.4	13.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.6	31.5	63.5	30.8	25.0	69.4	2.1	0.4	13.6	0.1
Queue Length 50th (ft)	5	7	375	121	91	43	8	0	703	0
Queue Length 95th (ft)	20	56	426	223	191	m#84	47	6	m#863	m0
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530				200		325		150
Base Capacity (vph)	67	135	1174	495	492	123	3223	996	2733	993
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.53	0.68	0.51	0.50	0.71	0.35	0.16	0.88	0.05

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	147	348	283	564	207	76	164	1620	624	38	1042	76
v/c Ratio	0.67	0.94	0.45	1.03	0.46	0.16	0.76	1.03	0.58	0.54	0.87	0.09
Control Delay	65.1	80.7	23.7	94.0	43.7	0.7	72.6	64.2	11.5	84.1	45.6	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.7	0.0	0.0	0.0
Total Delay	65.1	80.7	23.7	94.0	43.7	0.7	72.6	87.5	12.2	84.1	45.6	1.4
Queue Length 50th (ft)	110	269	123	~243	139	0	123	~718	196	30	397	0
Queue Length 95th (ft)	176	#453	203	#356	223	0	#214	#858	302	#81	#494	12
Internal Link Dist (ft)		429			1915			582			4602	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	272	371	650	550	452	478	240	1572	1069	70	1223	877
Starvation Cap Reductn	0	0	0	0	0	0	0	86	175	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.94	0.44	1.03	0.46	0.16	0.68	1.09	0.70	0.54	0.85	0.09

Intersection Summary

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

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

8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	451	166	164	128	32	96	234	2346	106	1980	206
v/c Ratio	0.79	0.56	0.53	0.70	0.33	0.45	1.14	0.75	1.13	0.71	0.22
Control Delay	70.5	21.8	14.3	84.8	76.3	9.5	143.0	12.3	174.5	24.5	7.1
Queue Delay	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.0
Total Delay	70.5	21.8	14.4	84.8	76.3	9.5	143.0	12.5	174.5	24.8	7.1
Queue Length 50th (ft)	221	25	0	123	31	0	~267	189	~122	450	50
Queue Length 95th (ft)	272	103	72	192	67	19	#444	616	m#190	m466	m84
Internal Link Dist (ft)		707			448			403		594	
Turn Bay Length (ft)	185			60		150	265		305		220
Base Capacity (vph)	747	532	538	224	365	415	206	3119	94	2794	925
Starvation Cap Reductn	0	0	0	0	0	0	0	133	0	305	0
Spillback Cap Reductn	0	24	25	0	0	0	0	0	0	277	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.33	0.32	0.57	0.09	0.23	1.14	0.79	1.13	0.80	0.22

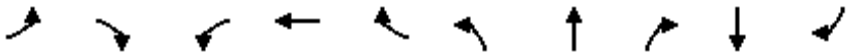
Intersection Summary

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

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

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

9: Sierra College Blvd & I-80 WB Ramps



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	37	128	1101	249	242	324	2094	271	2373	37
v/c Ratio	0.61	0.52	0.99	0.57	0.51	1.35	0.69	0.26	0.97	0.04
Control Delay	108.9	39.3	74.5	49.0	30.9	217.8	12.8	0.7	27.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	108.9	39.3	74.5	49.0	31.0	217.8	12.9	0.7	27.1	0.1
Queue Length 50th (ft)	36	59	553	205	123	~216	298	0	625	0
Queue Length 95th (ft)	#94	130	#705	308	220	m#298	m313	m1	#750	m0
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530				200		325		150
Base Capacity (vph)	61	245	1112	440	473	240	3014	1056	2439	844
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	2	0	147	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.52	0.99	0.57	0.51	1.35	0.73	0.26	0.97	0.04

Intersection Summary

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

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

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

24: Sierra College Blvd & Project Driveway

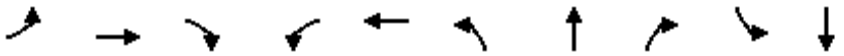
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	114	90	437	175	52	2421	421	154	1955
v/c Ratio	0.82	0.31	1.14	0.56	0.29	1.23	0.41	0.45	0.72
Control Delay	77.6	4.1	127.0	13.4	35.3	130.2	4.0	32.2	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.6	4.1	127.0	13.4	35.3	130.2	4.0	32.2	17.9
Queue Length 50th (ft)	53	0	~146	3	31	~660	38	64	254
Queue Length 95th (ft)	#141	10	#233	53	m49	#847	81	123	#444
Internal Link Dist (ft)		536		371		594			341
Turn Bay Length (ft)			150				160	190	
Base Capacity (vph)	139	496	383	519	180	1971	1036	341	2709
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.18	1.14	0.34	0.29	1.23	0.41	0.45	0.72

Intersection Summary

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

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

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	93	105	360	152	74	335	437	319	37	302
v/c Ratio	0.37	0.42	0.67	0.53	0.25	1.09	0.58	0.40	0.42	0.40
Control Delay	30.7	31.8	10.4	33.5	21.3	111.0	20.7	4.0	50.7	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	31.8	10.4	33.5	21.3	111.0	20.7	4.0	50.7	22.3
Queue Length 50th (ft)	33	37	0	54	17	~152	132	0	14	47
Queue Length 95th (ft)	72	80	44	110	50	#339	242	34	#53	85
Internal Link Dist (ft)		587			904		408			324
Turn Bay Length (ft)	65		150	95		200		350	280	
Base Capacity (vph)	773	771	901	826	801	307	877	871	89	1177
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.14	0.40	0.18	0.09	1.09	0.50	0.37	0.42	0.26

Intersection Summary

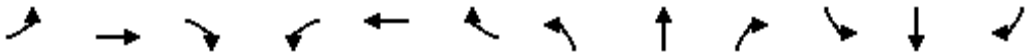
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	39	114	313	23	677	136	460	588
v/c Ratio	0.17	0.50	0.44	0.16	0.89	0.20	0.91	0.45
Control Delay	20.8	33.8	10.1	33.0	37.5	4.5	49.6	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	33.8	10.1	33.0	37.5	4.5	49.6	8.5
Queue Length 50th (ft)	11	44	54	9	257	1	184	75
Queue Length 95th (ft)	33	86	100	31	#494	32	#375	246
Internal Link Dist (ft)	142	528			1160			350
Turn Bay Length (ft)			160	100		125	190	
Base Capacity (vph)	481	405	704	154	759	687	508	1315
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.28	0.44	0.15	0.89	0.20	0.91	0.45

Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	234	283	567	181	37	190	801	581	43	818	43
v/c Ratio	0.53	0.64	0.40	0.87	0.31	0.06	0.73	0.59	0.52	0.44	0.93	0.06
Control Delay	54.6	43.4	11.8	53.2	27.6	0.2	55.5	26.1	6.8	59.9	53.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	43.4	11.8	53.2	27.6	0.2	55.5	26.1	6.8	59.9	53.9	0.1
Queue Length 50th (ft)	49	131	60	174	87	0	109	210	79	26	257	0
Queue Length 95th (ft)	102	210	121	#288	146	0	#203	293	183	#69	#409	0
Internal Link Dist (ft)		429			1915			582			6350	
Turn Bay Length (ft)	150		250	215		215	210			210		450
Base Capacity (vph)	179	467	748	655	637	660	303	1362	1121	97	878	746
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.50	0.38	0.87	0.28	0.06	0.63	0.59	0.52	0.44	0.93	0.06

Intersection Summary

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

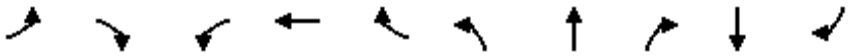
8: Sierra College Blvd & Granite Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	310	122	118	146	31	68	219	1666	104	1571	216
v/c Ratio	0.68	0.61	0.56	0.74	0.33	0.34	0.79	0.59	0.40	0.57	0.24
Control Delay	69.9	30.6	20.7	86.7	76.7	4.6	73.4	15.1	69.9	24.9	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0
Total Delay	69.9	30.6	20.7	86.7	76.7	4.6	73.4	15.2	69.9	25.1	9.6
Queue Length 50th (ft)	152	21	0	140	30	0	217	200	93	381	53
Queue Length 95th (ft)	199	90	66	215	65	1	315	318	m163	416	m93
Internal Link Dist (ft)		707			465			403		593	
Turn Bay Length (ft)	185			60		150	265		305		220
Base Capacity (vph)	468	389	395	233	351	419	312	2808	263	2743	916
Starvation Cap Reductn	0	0	0	0	0	0	0	221	0	473	0
Spillback Cap Reductn	0	5	6	0	0	0	0	0	0	292	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.32	0.30	0.63	0.09	0.16	0.70	0.64	0.40	0.69	0.24

Intersection Summary

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

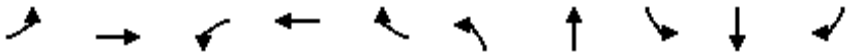
9: Sierra College Blvd & I-80 WB Ramps



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	83	302	1135	297	273	417	1518	250	1883	26
v/c Ratio	0.40	0.70	0.97	0.89	0.76	0.93	0.51	0.24	0.90	0.03
Control Delay	69.0	34.4	68.4	79.5	47.7	79.9	10.8	0.6	21.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.0	34.4	68.4	79.5	47.7	79.9	10.8	0.6	21.7	0.1
Queue Length 50th (ft)	76	135	556	274	169	215	224	5	519	0
Queue Length 95th (ft)	#182	#314	#695	366	263	m#307	194	m0	166	m0
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)	530	530				200		325		150
Base Capacity (vph)	206	437	1199	441	449	457	2975	1021	2106	744
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	1	0	70	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.69	0.95	0.67	0.61	0.91	0.52	0.24	0.89	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	354	804	27	537	548	53	48	222	225	236
v/c Ratio	0.82	0.45	0.24	0.60	0.69	0.38	0.31	0.62	0.63	0.46
Control Delay	51.1	17.3	51.3	34.5	8.1	53.2	31.3	41.7	41.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.1	17.3	51.3	34.5	8.1	53.2	31.3	41.7	41.9	7.3
Queue Length 50th (ft)	198	134	16	149	0	31	12	129	131	0
Queue Length 95th (ft)	#395	269	47	228	97	77	52	213	215	59
Internal Link Dist (ft)		1407		615			195		589	
Turn Bay Length (ft)	225		135		150			325		
Base Capacity (vph)	487	1874	116	1074	838	140	156	604	607	707
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.43	0.23	0.50	0.65	0.38	0.31	0.37	0.37	0.33

Intersection Summary

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

24: Sierra College Blvd & Project Driveway

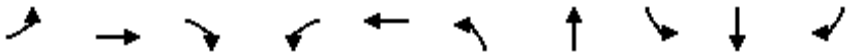
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	107	98	542	249	57	1445	574	240	1493
v/c Ratio	0.36	0.30	0.80	0.55	0.38	0.87	0.53	0.73	0.61
Control Delay	30.6	2.4	40.0	5.5	38.0	33.7	5.3	42.7	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	2.4	40.0	5.5	38.0	33.7	5.3	42.7	17.0
Queue Length 50th (ft)	44	0	127	0	40	258	42	103	201
Queue Length 95th (ft)	88	0	#210	12	m59	#405	146	#182	263
Internal Link Dist (ft)		477		344		593			344
Turn Bay Length (ft)			150				160	190	
Base Capacity (vph)	301	370	679	627	155	1658	1091	365	2443
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	5
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.26	0.80	0.40	0.37	0.87	0.53	0.66	0.61

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Project Driveway Option B

8: Sierra College Blvd & Granite Dr



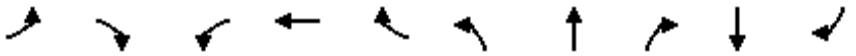
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	75	11	130	177	58	365	1148	83	2038	153
v/c Ratio	0.69	0.11	0.18	0.44	0.44	0.83	0.37	0.55	0.83	0.19
Control Delay	87.5	56.6	13.7	53.3	44.4	60.5	10.7	66.8	31.4	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.5	0.0
Total Delay	87.5	56.6	13.7	53.3	44.4	60.5	11.0	66.8	31.9	9.5
Queue Length 50th (ft)	59	8	18	64	25	274	143	63	502	29
Queue Length 95th (ft)	#144	28	33	#135	69	#457	199	118	606	73
Internal Link Dist (ft)		707			411		403		628	
Turn Bay Length (ft)	185			160		265		305		220
Base Capacity (vph)	109	434	727	401	438	438	3129	195	2441	800
Starvation Cap Reductn	0	0	0	0	0	0	1191	0	111	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.03	0.18	0.44	0.13	0.83	0.59	0.43	0.87	0.19

Intersection Summary

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

Queues
9: Sierra College Blvd & I-80 WB Ramps

02/21/2019



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	5	71	799	60	437	87	1136	163	2392	54
v/c Ratio	0.08	0.54	0.89	0.13	0.52	0.75	0.35	0.16	0.87	0.05
Control Delay	70.6	32.3	63.9	42.4	23.4	86.0	4.8	0.4	30.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.4	0.0
Total Delay	70.6	32.3	63.9	42.4	23.4	86.0	4.8	0.4	76.6	0.2
Queue Length 50th (ft)	5	7	376	44	90	43	50	0	670	0
Queue Length 95th (ft)	20	56	426	85	155	m#88	107	3	#849	2
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)			220		180	200		325		150
Base Capacity (vph)	62	132	1148	506	890	116	3226	997	2744	997
Starvation Cap Reductn	0	0	0	0	0	0	0	0	681	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.54	0.70	0.12	0.49	0.75	0.35	0.16	1.16	0.05

Intersection Summary

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

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

7: Sierra College Blvd & Brace Rd

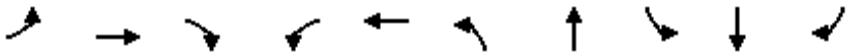
Lane Group	EBR	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	568	104	147	2198	394	335	1475
v/c Ratio	1.33	0.56	0.52	1.13	0.42	1.25	0.52
Control Delay	194.8	64.9	17.2	103.9	4.7	181.0	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	194.8	64.9	17.2	103.9	4.7	181.0	17.9
Queue Length 50th (ft)	~536	86	9	~774	32	~344	261
Queue Length 95th (ft)	#784	149	76	#901	63	#549	320
Internal Link Dist (ft)			199	226			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	428	240	329	1938	977	269	2845
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.33	0.43	0.45	1.13	0.40	1.25	0.52

Intersection Summary

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

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

8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	449	29	303	160	130	234	2345	106	1948	204
v/c Ratio	1.17	0.11	0.42	0.29	0.69	1.14	0.84	1.13	0.79	0.25
Control Delay	149.9	49.5	32.1	61.3	43.8	147.9	19.5	191.8	36.0	9.5
Queue Delay	0.0	0.0	1.0	0.0	0.0	0.0	0.4	0.0	3.2	0.0
Total Delay	149.9	49.5	33.1	61.3	43.8	147.9	19.9	191.8	39.2	9.5
Queue Length 50th (ft)	~520	23	86	78	43	~272	636	~119	568	38
Queue Length 95th (ft)	#741	50	111	119	112	#455	823	#249	694	97
Internal Link Dist (ft)		707			466		403		618	
Turn Bay Length (ft)	185			160		265		305		220
Base Capacity (vph)	385	602	717	553	388	206	2784	94	2461	831
Starvation Cap Reductn	0	0	0	0	0	0	109	0	405	0
Spillback Cap Reductn	0	0	212	0	0	0	0	0	132	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.17	0.05	0.60	0.29	0.34	1.14	0.88	1.13	0.95	0.25

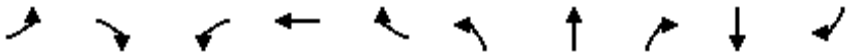
Intersection Summary

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

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

Queues
9: Sierra College Blvd & I-80 WB Ramps

02/21/2019



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	37	128	1101	249	242	324	2094	271	2373	37
v/c Ratio	0.62	0.45	0.99	0.57	0.51	0.98	0.69	0.26	1.03	0.05
Control Delay	110.3	34.8	75.0	49.0	30.9	107.2	19.1	1.7	47.3	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.6	0.0	0.0	0.0
Total Delay	110.3	34.8	75.0	49.0	31.0	107.2	19.7	1.7	47.3	0.8
Queue Length 50th (ft)	36	58	554	205	123	166	420	0	~898	0
Queue Length 95th (ft)	#95	126	#706	308	220	m#262	m471	m23	#971	m1
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)			220		180	200		325		150
Base Capacity (vph)	60	285	1110	440	472	330	3018	1057	2312	805
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	1	9	0	487	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.45	0.99	0.57	0.52	0.98	0.83	0.26	1.03	0.05

Intersection Summary

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

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

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

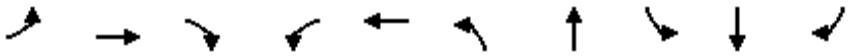
7: Sierra College Blvd & Brace Rd

Lane Group	EBR	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	281	112	103	1433	298	260	1374
v/c Ratio	0.88	0.46	0.33	0.80	0.31	0.86	0.47
Control Delay	46.1	38.4	6.8	29.4	1.6	59.4	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	38.4	6.8	29.4	1.6	59.4	10.8
Queue Length 50th (ft)	58	56	0	245	0	129	132
Queue Length 95th (ft)	#217	109	30	#370	20	#262	199
Internal Link Dist (ft)			199	226			582
Turn Bay Length (ft)		100			200	170	
Base Capacity (vph)	318	383	421	1781	1065	369	3098
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.29	0.24	0.80	0.28	0.70	0.44

Intersection Summary

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

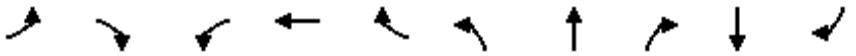
8: Sierra College Blvd & Granite Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	306	25	219	204	103	219	1666	104	1513	211
v/c Ratio	0.81	0.12	0.31	0.24	0.51	0.79	0.79	0.63	0.84	0.31
Control Delay	53.4	34.9	16.5	32.2	25.9	60.0	26.6	59.7	33.0	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0
Total Delay	53.4	34.9	16.5	32.2	25.9	60.0	27.2	59.7	33.0	7.2
Queue Length 50th (ft)	171	14	48	42	20	125	293	60	292	15
Queue Length 95th (ft)	#325	35	43	96	69	#254	384	#143	380	67
Internal Link Dist (ft)		707			437		403		597	
Turn Bay Length (ft)	185			160		265		305		220
Base Capacity (vph)	377	745	704	854	584	276	2146	166	1807	670
Starvation Cap Reductn	0	0	0	0	0	0	175	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.03	0.31	0.24	0.18	0.79	0.85	0.63	0.84	0.31

Intersection Summary

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



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	83	302	1135	297	273	417	1518	250	1883	26
v/c Ratio	0.39	0.70	0.92	0.86	0.71	1.03	0.54	0.26	0.95	0.04
Control Delay	58.4	28.9	51.0	66.1	34.3	103.3	15.4	1.2	49.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.8	0.0
Total Delay	58.4	28.9	51.0	66.1	34.3	103.3	15.4	1.2	92.8	0.1
Queue Length 50th (ft)	63	103	448	227	121	~189	221	0	545	0
Queue Length 95th (ft)	#128	#221	515	309	204	m#286	m283	m9	#712	0
Internal Link Dist (ft)				575			369		403	
Turn Bay Length (ft)			220		180	200		325		150
Base Capacity (vph)	214	429	1367	519	529	403	2810	978	1977	716
Starvation Cap Reductn	0	0	0	0	0	0	0	0	312	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.70	0.83	0.57	0.52	1.03	0.54	0.26	1.13	0.04

Intersection Summary

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

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

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

24: Sierra College Blvd & Project Driveway

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	107	98	477	262	57	1571	505	253	1609
v/c Ratio	0.47	0.34	0.80	0.51	0.46	0.91	0.47	0.72	0.64
Control Delay	38.3	3.3	42.2	4.5	47.8	34.6	3.8	41.6	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	3.3	42.2	4.5	47.8	34.6	3.8	41.6	16.4
Queue Length 50th (ft)	49	0	115	0	27	271	21	113	212
Queue Length 95th (ft)	94	2	#194	16	#71	#383	71	#207	268
Internal Link Dist (ft)		477		344		597			338
Turn Bay Length (ft)					160		130	190	
Base Capacity (vph)	288	524	600	677	124	1723	1083	395	2522
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.19	0.80	0.39	0.46	0.91	0.47	0.64	0.64

Intersection Summary

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

Project Driveway Option C

See Option A or B as noted in study

Appendix D:Simulation Worksheets (SimTraffic)

Existing Conditions

6: Sierra College Blvd & Taylor Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.6	0.6	0.5	0.6	0.6	0.6
Denied Del/Veh (s)	1.0	1.0	0.9	1.0	1.0	1.0
Total Delay (hr)	24.0	32.2	19.0	21.4	25.9	24.5
Total Del/Veh (s)	39.0	55.1	34.2	36.8	44.8	42.0
Stop Del/Veh (s)	28.4	42.1	25.4	27.6	33.4	31.4

7: Sierra College Blvd & Brace Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	5.1	4.6	4.5	4.5	4.6	4.7
Total Del/Veh (s)	9.9	9.2	9.7	9.5	9.5	9.6
Stop Del/Veh (s)	6.0	5.3	5.9	5.7	6.0	5.8

8: Sierra College Blvd & Granite Dr Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Denied Del/Veh (s)	0.2	0.2	0.2	0.2	0.2	0.2
Total Delay (hr)	11.4	11.4	10.0	10.5	11.7	11.0
Total Del/Veh (s)	17.4	18.0	16.7	17.3	19.0	17.7
Stop Del/Veh (s)	12.6	12.9	12.1	12.8	14.1	12.9

9: Sierra College Blvd & I-80 WB Ramps Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.2	0.2	0.2	0.2	0.2	0.2
Denied Del/Veh (s)	0.2	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	10.6	13.6	11.1	10.7	11.8	11.6
Total Del/Veh (s)	12.8	16.2	13.7	13.2	14.3	14.1
Stop Del/Veh (s)	8.1	11.2	9.2	8.7	9.7	9.4

10: Sierra College Blvd & I-80 EB Ramps Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.4	0.4	0.4	0.4	0.5	0.4
Denied Del/Veh (s)	0.6	0.5	0.5	0.6	0.6	0.6
Total Delay (hr)	8.6	8.4	8.2	8.8	8.8	8.5
Total Del/Veh (s)	10.9	10.3	10.3	11.0	10.9	10.7
Stop Del/Veh (s)	7.0	6.6	6.7	7.2	7.1	6.9

11: Sierra College Blvd & Schriber Way Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.2	1.1	1.1	1.2	1.1	1.1
Total Del/Veh (s)	2.1	1.9	1.9	2.0	1.8	2.0
Stop Del/Veh (s)	0.3	0.3	0.3	0.3	0.3	0.3

12: Sierra College Blvd & Bass Pro Dr/Dominguez Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	1.5	1.4	1.5	1.6	1.5	1.5
Total Del/Veh (s)	2.7	2.5	2.7	2.8	2.7	2.7
Stop Del/Veh (s)	1.1	0.9	1.1	1.0	1.1	1.0

13: Sierra College Blvd & Stadium Dwy Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Denied Del/Veh (s)	0.2	0.2	0.2	0.2	0.2	0.2
Total Delay (hr)	2.4	2.2	2.2	2.4	2.1	2.2
Total Del/Veh (s)	4.0	3.8	3.6	4.0	3.6	3.8
Stop Del/Veh (s)	1.7	1.4	1.5	1.6	1.4	1.5

21: Sierra College Blvd & Dwy S of Brace Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.0	1.0	0.9	0.8	0.8	0.9
Total Del/Veh (s)	2.3	2.2	2.2	2.1	2.0	2.1
Stop Del/Veh (s)	0.3	0.3	0.3	0.2	0.2	0.3

99: I-80 WB On Ramp & Sierra College Blvd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.4	1.6	1.4	1.4	1.4	1.4
Total Del/Veh (s)	2.0	2.1	1.9	1.9	1.9	2.0
Stop Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1

101: Sierra College Blvd & I-80 EB On Ramp Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.0	1.0	1.1	1.1	1.1	1.1
Total Del/Veh (s)	1.5	1.4	1.6	1.5	1.6	1.5
Stop Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	1.7	1.7	1.6	1.7	1.7	1.7
Denied Del/Veh (s)	1.1	1.1	1.1	1.1	1.1	1.1
Total Delay (hr)	71.8	81.8	64.2	67.6	74.1	71.9
Total Del/Veh (s)	46.2	53.2	42.3	43.6	48.5	46.8
Stop Del/Veh (s)	27.9	34.0	25.7	26.8	30.6	29.0

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	1.7	1.7	1.6	1.7	1.7	1.7
Denied Del/Veh (s)	1.1	1.1	1.1	1.1	1.1	1.1
Total Delay (hr)	71.8	81.8	64.2	67.6	74.1	71.9
Total Del/Veh (s)	46.2	53.2	42.3	43.6	48.5	46.8
Stop Del/Veh (s)	27.9	34.0	25.7	26.8	30.6	29.0
Stop/Veh	1.40	1.48	1.35	1.34	1.42	1.39
Travel Dist (mi)	4852.9	4750.9	4589.6	4659.0	4709.7	4712.4
Travel Time (hr)	212.5	219.3	197.3	203.1	210.5	208.5
Avg Speed (mph)	23	22	23	23	23	23
Vehicles Entered	5393	5323	5281	5375	5302	5333
Vehicles Exited	5382	5311	5265	5352	5302	5325
Hourly Exit Rate	5382	5311	5265	5352	5302	5325
Input Volume	33580	33580	33580	33580	33580	33580
% of Volume	16	16	16	16	16	16
Denied Entry Before	4	1	1	4	0	0
Denied Entry After	0	1	2	2	1	0

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	1.2	12.7	0.2	47	48	1.1
	80	0.6	12.0	0.2	46	47	0.6
	107	1.2	12.4	0.2	45	45	1.1
Bass Pro Dr/Domingue	12	2.0	4.2	0.0	28	28	2.1
Schriber Way	11	1.1	8.8	0.1	34	34	1.2
I-80 EB Ramps	10	11.4	17.5	0.1	16	17	10.6
I-80 EB On Ramp	101	2.9	12.8	0.1	33	33	2.9
I-80 WB On Ramp	99	0.4	10.7	0.1	40	39	0.4
I-80 WB Ramps	9	8.8	16.2	0.1	19	19	8.8
Granite Dr	8	11.5	19.4	0.1	17	16	12.3
Dwy S of Brace Rd	21	3.4	22.2	0.2	34	33	3.6
Brace Rd	7	7.4	12.5	0.1	17	16	8.0
Taylor Rd	6	18.7	29.4	0.1	15	15	19.3
Total		70.8	191.0	1.5	28	28	71.7

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	47	1.3	47	1.2	46	1.5	48
	46	0.7	46	0.7	46	0.7	47
	45	1.1	44	1.4	44	1.3	46
Bass Pro Dr/Domingue	31	1.7	27	2.3	28	2.1	29
Schriber Way	35	1.0	34	1.2	34	1.1	34
I-80 EB Ramps	16	11.3	16	11.1	15	11.7	15
I-80 EB On Ramp	33	2.9	33	2.8	32	2.9	33
I-80 WB On Ramp	40	0.4	40	0.4	39	0.4	40
I-80 WB Ramps	18	10.0	20	8.1	19	8.7	19
Granite Dr	18	10.3	18	10.8	16	12.4	17
Dwy S of Brace Rd	34	3.4	34	3.4	34	3.2	33
Brace Rd	18	6.5	16	7.8	18	6.6	16
Taylor Rd	15	19.4	16	17.2	16	17.7	15
Total	28	69.7	28	68.5	28	70.3	27

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	70.6	145.7	1.0	24	25	63.3
Brace Rd	7	7.7	19.3	0.1	23	23	8.5
Dwy S of Brace Rd	21	1.7	7.0	0.1	30	30	1.7
Granite Dr	8	16.9	35.2	0.2	21	21	17.1
I-80 WB Ramps	9	17.1	24.9	0.1	13	14	15.3
I-80 WB On Ramp	99	3.6	10.9	0.1	28	28	3.6
I-80 EB On Ramp	101	0.6	10.3	0.1	41	41	0.7
I-80 EB Ramps	10	9.1	20.2	0.1	21	20	9.6
Schriber Way	11	2.7	9.6	0.1	29	28	2.9
Bass Pro Dr/Domingue	12	2.5	9.9	0.1	31	31	2.4
	107	0.4	4.8	0.0	25	25	0.4
	80	0.9	13.9	0.2	40	40	0.9
Stadium Dwy	13	4.0	14.5	0.2	38	38	4.2
Total		137.9	326.1	2.3	25	26	130.6

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	19	105.8	28	51.1	27	55.1	23
Brace Rd	23	7.7	24	7.1	22	8.4	24
Dwy S of Brace Rd	29	1.8	29	1.8	29	1.7	31
Granite Dr	21	18.0	22	15.6	22	15.5	20
I-80 WB Ramps	11	21.0	13	16.8	15	14.3	13
I-80 WB On Ramp	27	3.7	29	3.5	29	3.4	28
I-80 EB On Ramp	41	0.6	41	0.7	41	0.6	41
I-80 EB Ramps	22	8.5	21	9.0	21	9.3	21
Schriber Way	29	2.6	29	2.6	29	2.7	29
Bass Pro Dr/Domingue	31	2.4	31	2.3	30	2.7	30
	25	0.4	26	0.4	25	0.5	25
	40	0.9	40	0.8	40	0.9	40
Stadium Dwy	38	3.9	38	4.0	38	4.2	39
Total	22	177.4	27	115.7	27	119.4	25

6: Sierra College Blvd & Taylor Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.7	0.7	0.7	0.8	0.7	0.7
Denied Del/Veh (s)	1.0	1.0	1.0	1.1	0.9	1.0
Total Delay (hr)	25.5	26.8	28.7	35.6	28.7	29.1
Total Del/Veh (s)	34.2	36.1	37.6	45.2	38.0	38.3
Stop Del/Veh (s)	26.2	27.7	28.7	35.5	29.2	29.5

7: Sierra College Blvd & Brace Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.1	0.2	0.1	0.1	0.1	0.1
Denied Del/Veh (s)	0.2	0.3	0.2	0.2	0.2	0.2
Total Delay (hr)	5.5	6.7	7.1	11.2	8.5	7.8
Total Del/Veh (s)	9.1	10.9	11.2	17.5	13.6	12.5
Stop Del/Veh (s)	5.4	6.7	7.2	12.5	9.0	8.2

8: Sierra College Blvd & Granite Dr Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.3	0.3	0.2	0.2	0.2	0.3
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	15.9	15.7	15.9	16.2	15.0	15.7
Total Del/Veh (s)	19.9	19.7	19.8	20.0	19.2	19.7
Stop Del/Veh (s)	14.7	14.4	14.5	14.6	13.7	14.4

9: Sierra College Blvd & I-80 WB Ramps Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.5	0.5	1.0	0.6	0.4	0.6
Denied Del/Veh (s)	0.5	0.5	1.0	0.6	0.4	0.6
Total Delay (hr)	20.7	22.6	21.3	23.7	20.2	21.7
Total Del/Veh (s)	20.2	21.8	20.6	22.3	19.7	20.9
Stop Del/Veh (s)	15.1	16.6	15.5	17.1	14.8	15.8

10: Sierra College Blvd & I-80 EB Ramps Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.4	0.5	0.5	0.5	0.5	0.5
Denied Del/Veh (s)	0.4	0.4	0.4	0.5	0.4	0.4
Total Delay (hr)	16.0	15.9	15.6	16.5	16.5	16.1
Total Del/Veh (s)	14.9	14.8	14.4	14.9	15.2	14.8
Stop Del/Veh (s)	10.7	10.7	10.3	10.7	11.1	10.7

11: Sierra College Blvd & Schriber Way Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.4	1.2	1.4	1.4	1.4	1.4
Total Del/Veh (s)	2.1	1.9	2.1	2.2	2.1	2.1
Stop Del/Veh (s)	0.4	0.3	0.5	0.4	0.4	0.4

12: Sierra College Blvd & Bass Pro Dr/Dominguez Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Denied Del/Veh (s)	0.1	0.2	0.1	0.2	0.2	0.2
Total Delay (hr)	2.4	2.4	2.1	2.5	2.5	2.4
Total Del/Veh (s)	3.6	3.7	3.1	3.7	3.7	3.6
Stop Del/Veh (s)	1.9	1.8	1.5	1.9	1.9	1.8

13: Sierra College Blvd & Stadium Dwy Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.2	0.3	0.3	0.3	0.3	0.3
Denied Del/Veh (s)	0.3	0.4	0.4	0.4	0.4	0.4
Total Delay (hr)	3.3	3.7	3.6	4.0	4.0	3.7
Total Del/Veh (s)	5.1	5.6	5.5	5.9	6.0	5.6
Stop Del/Veh (s)	2.1	2.2	2.3	2.4	2.8	2.4

21: Sierra College Blvd & Dwy S of Brace Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.7	2.0	1.9	8.0	3.0	3.3
Total Del/Veh (s)	3.1	3.5	3.2	13.4	5.3	5.7
Stop Del/Veh (s)	0.2	0.3	0.3	8.8	1.4	2.3

99: I-80 WB On Ramp & Sierra College Blvd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.9	1.9	1.8	2.0	1.7	1.8
Total Del/Veh (s)	2.6	2.6	2.5	2.6	2.4	2.5
Stop Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1

101: Sierra College Blvd & I-80 EB On Ramp Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.8	1.7	1.8	1.8	1.8	1.8
Total Del/Veh (s)	1.9	1.9	1.9	1.9	2.0	1.9
Stop Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	2.4	2.5	2.9	2.7	2.4	2.6
Denied Del/Veh (s)	1.2	1.3	1.5	1.3	1.2	1.3
Total Delay (hr)	103.8	108.3	108.6	130.9	111.2	112.6
Total Del/Veh (s)	50.8	52.9	52.9	62.4	54.0	54.7
Stop Del/Veh (s)	31.9	33.4	33.5	41.3	34.1	34.9

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	2.4	2.5	2.9	2.7	2.4	2.6
Denied Del/Veh (s)	1.2	1.3	1.5	1.3	1.2	1.3
Total Delay (hr)	103.8	108.3	108.6	130.9	111.2	112.6
Total Del/Veh (s)	50.8	52.9	52.9	62.4	54.0	54.7
Stop Del/Veh (s)	31.9	33.4	33.5	41.3	34.1	34.9
Stop/Veh	1.40	1.43	1.41	1.55	1.45	1.45
Travel Dist (mi)	5709.8	5723.3	5793.0	5905.4	5762.5	5778.8
Travel Time (hr)	273.2	278.8	280.8	306.8	282.5	284.4
Avg Speed (mph)	21	21	21	19	21	21
Vehicles Entered	7064	7109	7101	7257	7129	7131
Vehicles Exited	7075	7111	7086	7214	7143	7125
Hourly Exit Rate	7075	7111	7086	7214	7143	7125
Input Volume	41212	41212	41212	41212	41212	41212
% of Volume	17	17	17	18	17	17
Denied Entry Before	2	0	3	4	3	1
Denied Entry After	4	1	1	4	1	0

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	4.7	16.3	0.2	37	38	4.2
	80	2.3	13.7	0.2	41	41	2.1
	107	2.6	13.8	0.2	40	40	2.6
Bass Pro Dr/Domingue	12	2.7	4.9	0.0	24	24	2.8
Schriber Way	11	1.7	9.5	0.1	32	31	1.8
I-80 EB Ramps	10	17.8	24.0	0.1	11	11	18.0
I-80 EB On Ramp	101	3.5	12.5	0.1	34	34	3.6
I-80 WB On Ramp	99	0.7	10.9	0.1	39	39	0.7
I-80 WB Ramps	9	11.6	18.4	0.1	17	18	11.0
Granite Dr	8	14.9	23.0	0.1	14	14	15.4
Dwy S of Brace Rd	21	10.3	29.0	0.2	26	31	5.4
Brace Rd	7	15.2	20.4	0.1	10	15	9.1
Taylor Rd	6	50.0	60.8	0.1	7	8	42.5
Total		138.2	257.2	1.5	21	22	119.1

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	35	5.3	37	4.7	36	5.1	37
	40	2.5	41	2.2	40	2.6	41
	41	2.5	42	2.2	40	2.8	40
Bass Pro Dr/Domingue	25	2.6	27	2.2	22	3.2	24
Schriber Way	32	1.6	33	1.5	31	1.9	31
I-80 EB Ramps	12	17.6	12	17.2	12	17.1	11
I-80 EB On Ramp	34	3.5	34	3.4	34	3.5	34
I-80 WB On Ramp	39	0.6	38	0.7	39	0.6	39
I-80 WB Ramps	18	11.1	17	11.9	17	12.0	17
Granite Dr	14	15.2	14	14.9	15	14.0	14
Dwy S of Brace Rd	30	6.0	31	5.3	17	25.2	27
Brace Rd	12	12.4	13	11.5	7	25.9	10
Taylor Rd	9	41.4	8	46.2	6	68.1	7
Total	22	122.3	22	123.8	18	182.0	20

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	40.3	114.8	1.0	30	32	33.6
Brace Rd	7	7.6	19.1	0.1	24	24	7.4
Dwy S of Brace Rd	21	1.7	7.0	0.1	30	31	1.5
Granite Dr	8	19.6	38.0	0.2	20	19	20.2
I-80 WB Ramps	9	27.9	35.9	0.1	9	10	26.3
I-80 WB On Ramp	99	4.6	12.5	0.1	24	24	4.7
I-80 EB On Ramp	101	0.8	10.4	0.1	41	41	0.7
I-80 EB Ramps	10	9.3	20.3	0.1	21	21	9.4
Schriber Way	11	2.3	9.4	0.1	29	29	2.4
Bass Pro Dr/Domingue	12	3.0	10.4	0.1	29	29	3.1
	107	0.9	4.1	0.0	29	30	0.9
	80	1.0	12.5	0.2	45	45	1.0
Stadium Dwy	13	4.7	15.4	0.2	36	37	4.4
Total		123.9	309.8	2.3	26	27	115.5

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	30	40.2	29	45.2	30	44.1	31
Brace Rd	23	8.0	24	7.7	24	7.4	23
Dwy S of Brace Rd	29	1.8	30	1.7	29	1.8	30
Granite Dr	20	19.5	20	19.4	19	20.2	20
I-80 WB Ramps	9	30.2	10	24.7	9	29.6	9
I-80 WB On Ramp	24	4.6	25	4.3	24	4.7	25
I-80 EB On Ramp	40	0.8	41	0.8	40	0.9	41
I-80 EB Ramps	21	9.3	21	9.1	21	9.5	21
Schriber Way	30	2.2	29	2.3	29	2.4	29
Bass Pro Dr/Domingue	28	3.3	30	2.7	30	2.7	28
	29	1.0	30	0.9	30	0.9	29
	45	1.1	44	1.1	45	1.0	44
Stadium Dwy	37	4.5	36	4.6	36	4.9	35
Total	26	126.4	26	124.5	26	130.1	26

6: Sierra College Blvd & Taylor Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.6	0.6	0.5	0.6	0.5	0.6
Denied Del/Veh (s)	1.1	1.0	1.0	1.1	1.1	1.1
Total Delay (hr)	12.8	14.1	12.8	13.2	12.1	13.0
Total Del/Veh (s)	23.6	26.2	24.6	24.7	23.8	24.6
Stop Del/Veh (s)	18.2	20.7	19.2	19.5	18.6	19.3

7: Sierra College Blvd & Brace Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	3.7	3.8	3.3	3.4	3.7	3.6
Total Del/Veh (s)	8.2	8.4	7.6	7.6	8.3	8.0
Stop Del/Veh (s)	4.9	5.3	4.5	4.4	5.0	4.8

8: Sierra College Blvd & Granite Dr Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.2	0.2	0.2	0.2	0.2	0.2
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.4	0.3
Total Delay (hr)	8.2	8.3	8.1	8.4	8.5	8.3
Total Del/Veh (s)	14.1	14.5	14.5	14.3	14.7	14.4
Stop Del/Veh (s)	10.4	10.5	10.6	10.5	10.7	10.6

9: Sierra College Blvd & I-80 WB Ramps Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.7	0.4	0.4	0.4	0.4	0.4
Denied Del/Veh (s)	0.7	0.5	0.4	0.5	0.4	0.5
Total Delay (hr)	18.8	20.3	17.5	18.2	17.7	18.5
Total Del/Veh (s)	21.0	22.5	20.1	20.4	19.9	20.8
Stop Del/Veh (s)	16.5	18.0	15.9	15.9	15.7	16.4

10: Sierra College Blvd & I-80 EB Ramps Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.4	0.4	0.4	0.4	0.4	0.4
Denied Del/Veh (s)	0.5	0.5	0.5	0.4	0.5	0.5
Total Delay (hr)	13.1	13.1	13.1	13.8	12.5	13.1
Total Del/Veh (s)	14.1	14.4	14.4	14.9	13.9	14.3
Stop Del/Veh (s)	10.9	11.2	11.1	11.5	10.7	11.1

11: Sierra College Blvd & Schriber Way Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.7	0.8	0.7	0.7	0.7
Total Del/Veh (s)	1.9	1.8	1.9	1.8	1.7	1.8
Stop Del/Veh (s)	0.5	0.5	0.5	0.5	0.4	0.5

12: Sierra College Blvd & Bass Pro Dr/Dominguez Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Denied Del/Veh (s)	0.2	0.3	0.3	0.2	0.2	0.2
Total Delay (hr)	1.3	1.4	1.5	1.2	1.3	1.4
Total Del/Veh (s)	3.1	3.4	3.6	2.9	3.2	3.3
Stop Del/Veh (s)	1.7	1.9	2.0	1.4	1.8	1.8

13: Sierra College Blvd & Stadium Dwy Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Denied Del/Veh (s)	0.2	0.2	0.3	0.2	0.3	0.2
Total Delay (hr)	1.0	0.7	1.0	1.0	0.9	0.9
Total Del/Veh (s)	2.5	1.7	2.3	2.4	2.3	2.2
Stop Del/Veh (s)	0.8	0.5	0.8	0.7	0.8	0.7

21: Sierra College Blvd & Dwy S of Brace Rd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.8	0.8	0.8	0.8	0.8
Total Del/Veh (s)	1.9	2.0	2.1	2.0	2.1	2.0
Stop Del/Veh (s)	0.2	0.2	0.2	0.2	0.2	0.2

99: I-80 WB On Ramp & Sierra College Blvd Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.5	1.5	1.4	1.6	1.4	1.5
Total Del/Veh (s)	2.1	2.1	2.0	2.2	2.0	2.1
Stop Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1

101: Sierra College Blvd & I-80 EB On Ramp Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.2	1.1	1.1	1.2	1.1	1.1
Total Del/Veh (s)	1.5	1.4	1.4	1.5	1.5	1.5
Stop Del/Veh (s)	0.1	0.1	0.1	0.1	0.2	0.1

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	2.2	1.9	1.9	1.9	1.9	2.0
Denied Del/Veh (s)	1.3	1.2	1.2	1.2	1.2	1.2
Total Delay (hr)	66.9	69.4	65.1	67.2	64.3	66.6
Total Del/Veh (s)	39.6	41.5	39.6	40.1	39.1	40.0
Stop Del/Veh (s)	26.6	28.5	26.6	26.9	26.3	27.0

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	2.2	1.9	1.9	1.9	1.9	2.0
Denied Del/Veh (s)	1.3	1.2	1.2	1.2	1.2	1.2
Total Delay (hr)	66.9	69.4	65.1	67.2	64.3	66.6
Total Del/Veh (s)	39.6	41.5	39.6	40.1	39.1	40.0
Stop Del/Veh (s)	26.6	28.5	26.6	26.9	26.3	27.0
Stop/Veh	1.29	1.32	1.32	1.30	1.31	1.31
Travel Dist (mi)	4348.9	4259.6	4226.6	4267.7	4181.6	4256.9
Travel Time (hr)	199.9	199.9	194.4	197.9	192.4	196.9
Avg Speed (mph)	22	22	22	22	22	22
Vehicles Entered	5876	5821	5744	5827	5702	5795
Vehicles Exited	5869	5846	5730	5835	5711	5797
Hourly Exit Rate	5869	5846	5730	5835	5711	5797
Input Volume	31639	31639	31639	31639	31639	31639
% of Volume	19	18	18	18	18	18
Denied Entry Before	1	3	0	1	2	0
Denied Entry After	4	3	1	1	2	0

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	2.0	13.5	0.2	44	43	2.4
	80	1.0	12.4	0.2	45	44	1.3
	107	1.7	12.9	0.2	43	43	1.9
Bass Pro Dr/Domingue	12	2.6	4.9	0.0	25	25	2.6
Schriber Way	11	1.5	9.2	0.1	33	32	1.7
I-80 EB Ramps	10	19.7	25.8	0.1	11	11	19.0
I-80 EB On Ramp	101	3.6	13.7	0.1	31	31	3.5
I-80 WB On Ramp	99	0.5	10.8	0.1	39	39	0.6
I-80 WB Ramps	9	9.9	17.0	0.1	19	17	11.3
Granite Dr	8	11.6	19.7	0.1	17	18	10.6
Dwy S of Brace Rd	21	3.2	21.1	0.2	35	36	3.0
Brace Rd	7	6.7	11.8	0.1	18	18	6.5
Taylor Rd	6	21.9	32.7	0.1	14	14	21.4
Total		85.8	205.4	1.5	26	26	85.7

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	46	1.6	45	1.8	44	2.1	45
	46	0.9	45	1.0	45	1.1	45
	43	1.8	43	1.7	43	1.7	43
Bass Pro Dr/Domingue	23	2.9	24	2.8	28	2.0	25
Schriber Way	33	1.4	33	1.5	34	1.3	33
I-80 EB Ramps	10	20.8	11	19.0	10	20.7	11
I-80 EB On Ramp	31	3.7	31	3.6	31	3.8	31
I-80 WB On Ramp	39	0.6	40	0.5	39	0.6	40
I-80 WB Ramps	17	11.3	19	9.6	20	9.0	21
Granite Dr	17	11.5	16	13.0	17	10.8	16
Dwy S of Brace Rd	36	3.1	35	3.4	35	3.3	36
Brace Rd	16	7.6	19	6.1	19	6.1	17
Taylor Rd	13	23.1	14	22.5	14	22.0	15
Total	25	90.2	26	86.3	26	84.4	26

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	28.8	104.1	1.0	33	33	29.6
Brace Rd	7	7.5	19.1	0.1	24	23	8.0
Dwy S of Brace Rd	21	1.5	6.8	0.1	31	31	1.4
Granite Dr	8	14.4	32.9	0.2	23	23	13.2
I-80 WB Ramps	9	29.1	37.2	0.1	9	9	27.7
I-80 WB On Ramp	99	4.1	11.6	0.1	27	27	3.9
I-80 EB On Ramp	101	0.6	10.3	0.1	41	41	0.7
I-80 EB Ramps	10	6.3	16.1	0.1	26	27	5.8
Schriber Way	11	1.9	9.0	0.1	31	31	1.8
Bass Pro Dr/Domingue	12	2.4	9.8	0.1	31	33	1.9
	107	0.8	3.9	0.0	31	32	0.7
	80	0.7	12.2	0.2	46	46	0.7
Stadium Dwy	13	2.0	13.0	0.2	43	43	2.1
Total		100.1	286.0	2.3	29	29	97.5

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	32	31.9	33	28.2	33	27.9	34
Brace Rd	24	7.4	24	7.1	24	7.4	24
Dwy S of Brace Rd	31	1.3	31	1.3	31	1.4	30
Granite Dr	22	15.7	22	14.8	23	13.7	23
I-80 WB Ramps	8	33.2	9	30.3	9	26.7	9
I-80 WB On Ramp	26	4.2	26	4.1	27	4.1	27
I-80 EB On Ramp	41	0.6	41	0.6	41	0.6	41
I-80 EB Ramps	27	5.8	24	7.6	26	6.4	27
Schriber Way	31	1.9	30	2.2	31	2.0	31
Bass Pro Dr/Domingue	31	2.3	29	2.8	30	2.6	31
	31	0.8	30	0.8	30	0.9	31
	46	0.6	45	0.8	45	0.8	46
Stadium Dwy	45	1.4	41	2.3	42	2.3	42
Total	28	107.2	28	103.1	29	96.7	29

Intersection: 6: Sierra College Blvd & Taylor Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	L	T	R	L	T	R	L	T
Maximum Queue (ft)	134	196	147	122	171	200	72	216	256	100	104	274
Average Queue (ft)	38	96	45	44	76	92	16	78	105	24	22	131
95th Queue (ft)	87	160	91	92	133	176	59	160	198	67	65	222
Link Distance (ft)		689				943			547	547		4997
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120		120	150	150		150	190			215	
Storage Blk Time (%)		4	0		0	1		0	1			1
Queuing Penalty (veh)		8	1		1	4		0	2			1

Intersection: 6: Sierra College Blvd & Taylor Rd

Movement	SB
Directions Served	R
Maximum Queue (ft)	78
Average Queue (ft)	14
95th Queue (ft)	60
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	215
Storage Blk Time (%)	0
Queuing Penalty (veh)	0

Intersection: 7: Sierra College Blvd & Brace Rd

Movement	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	R	L	R	T	TR	L	T	TR
Maximum Queue (ft)	66	104	90	184	139	100	116	117
Average Queue (ft)	34	51	30	76	56	42	36	53
95th Queue (ft)	59	86	66	149	116	78	87	107
Link Distance (ft)	572		487	242	242		547	547
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)		85				155		
Storage Blk Time (%)		1	0			0	0	
Queuing Penalty (veh)		1	0			0	0	

Intersection: 8: Sierra College Blvd & Granite Dr

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	R	R	L	T	R	L	T	T	R	L
Maximum Queue (ft)	151	70	92	65	122	66	36	188	222	116	40	96
Average Queue (ft)	66	17	49	29	54	19	12	80	60	45	10	43
95th Queue (ft)	118	50	79	53	99	50	31	148	138	101	28	82
Link Distance (ft)		730	730		474	474	474		375	375	375	
Upstream Blk Time (%)									0			
Queuing Penalty (veh)									0			
Storage Bay Dist (ft)	185			185				170				280
Storage Blk Time (%)	0							1	0			
Queuing Penalty (veh)	0							2	0			

Intersection: 8: Sierra College Blvd & Granite Dr

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	165	206	102
Average Queue (ft)	77	103	31
95th Queue (ft)	132	175	78
Link Distance (ft)	1019	1019	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			190
Storage Blk Time (%)		1	
Queuing Penalty (veh)		1	

Intersection: 9: Sierra College Blvd & I-80 WB Ramps

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	R	L	L	TR	R	L	T	T	T	R	T
Maximum Queue (ft)	109	159	176	210	284	114	180	318	160	65	85	278
Average Queue (ft)	46	70	74	130	148	12	145	128	51	20	39	153
95th Queue (ft)	88	125	147	202	249	58	203	274	124	52	71	236
Link Distance (ft)	617	617		586	586			391	391	391		375
Upstream Blk Time (%)								0				
Queuing Penalty (veh)								0				
Storage Bay Dist (ft)			220			180	130				295	
Storage Blk Time (%)				0	5		17	1				
Queuing Penalty (veh)				0	4		33	3				

Intersection: 9: Sierra College Blvd & I-80 WB Ramps

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	258	236	174
Average Queue (ft)	149	94	32
95th Queue (ft)	228	185	94
Link Distance (ft)	375	375	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			130
Storage Blk Time (%)		5	
Queuing Penalty (veh)		4	

Existing Plus Project Conditions

Project Driveway Option A

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	2.0	2.0	1.9	2.0	2.0	2.0
Denied Del/Veh (s)	1.3	1.2	1.2	1.2	1.3	1.2
Total Delay (hr)	78.1	72.3	70.8	73.6	72.7	73.5
Total Del/Veh (s)	47.4	43.7	43.7	44.6	44.3	44.7
Stop Delay (hr)	52.6	48.2	46.8	49.2	48.0	49.0
Stop Del/Veh (s)	31.9	29.2	28.8	29.8	29.3	29.8
Stop/Veh	1.56	1.49	1.49	1.50	1.55	1.52
Travel Dist (mi)	4921.6	4887.1	4884.7	4948.2	4936.1	4915.6
Travel Time (hr)	256.1	248.7	246.4	251.9	250.7	250.8
Avg Speed (mph)	19	20	20	20	20	20
Vehicles Entered	5740	5735	5630	5760	5704	5707
Vehicles Exited	5701	5707	5584	5665	5641	5661
Hourly Exit Rate	5701	5707	5584	5665	5641	5661
Input Volume	37805	37805	37805	37805	37805	37805
% of Volume	15	15	15	15	15	15
Denied Entry Before	3	0	2	4	0	0
Denied Entry After	4	1	2	2	5	0

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	1.0	19.9	0.2	30	30	0.7
	80	0.7	19.6	0.2	28	29	0.5
	107	0.6	17.0	0.1	29	29	0.6
Bass Pro Dr/Domingue	12	2.9	8.9	0.1	21	21	3.1
Schriber Way	11	0.9	11.3	0.1	27	27	1.0
I-80 EB Ramps	10	11.8	19.9	0.1	14	14	12.3
I-80 EB On Ramp	101	2.1	15.2	0.1	28	28	2.0
I-80 WB On Ramp	99	0.4	14.1	0.1	30	30	0.5
I-80 WB Ramps	9	8.2	17.9	0.1	17	17	7.9
Granite Dr	8	12.5	23.1	0.1	14	13	14.3
Project Driveway	24	7.2	21.7	0.1	21	21	7.8
Dwy S of Brace Rd	21	1.4	10.9	0.1	27	27	1.4
Brace Rd	7	7.3	13.9	0.1	15	16	6.5
Taylor Rd	6	16.7	30.8	0.1	15	15	15.7
Total		73.8	244.3	1.5	22	22	74.3

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	30	1.0	30	1.0	30	0.9	29
	28	0.7	28	0.7	28	0.8	28
	28	0.7	29	0.6	29	0.6	29
Bass Pro Dr/Domingue	22	2.5	22	2.7	23	2.2	19
Schriber Way	27	0.9	27	0.9	27	0.8	26
I-80 EB Ramps	15	10.4	14	11.2	13	12.2	13
I-80 EB On Ramp	28	2.1	28	2.0	27	2.2	28
I-80 WB On Ramp	30	0.5	30	0.4	30	0.4	30
I-80 WB Ramps	17	8.3	17	8.6	17	7.9	17
Granite Dr	14	12.4	15	11.9	15	11.3	14
Project Driveway	22	6.3	22	6.4	21	7.7	21
Dwy S of Brace Rd	27	1.3	27	1.2	26	1.6	26
Brace Rd	15	7.0	17	5.8	13	8.5	13
Taylor Rd	17	12.3	13	19.3	14	17.7	14
Total	22	66.3	22	72.6	21	74.8	21

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	65.8	176.3	1.0	20	17	91.1
Brace Rd	7	6.3	21.8	0.1	21	22	5.4
Dwy S of Brace Rd	21	1.3	8.2	0.1	25	25	1.1
Project Driveway	24	5.1	14.4	0.1	20	19	5.7
Granite Dr	8	18.2	33.3	0.1	14	14	17.0
I-80 WB Ramps	9	14.4	24.7	0.1	13	13	14.4
I-80 WB On Ramp	99	2.6	12.5	0.1	25	24	2.7
I-80 EB On Ramp	101	0.7	13.6	0.1	31	31	0.7
I-80 EB Ramps	10	9.0	23.7	0.1	18	18	9.3
Schriber Way	11	1.9	11.1	0.1	25	24	2.0
Bass Pro Dr/Domingue	12	2.6	12.5	0.1	24	24	2.7
	107	0.9	7.5	0.1	25	25	0.9
	80	1.1	17.5	0.1	28	28	1.3
Stadium Dwy	13	3.9	21.4	0.2	26	26	4.2
Total		133.9	398.6	2.3	20	19	158.6

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	20	60.2	21	54.0	19	69.6	21
Brace Rd	20	7.2	21	6.6	21	6.6	21
Dwy S of Brace Rd	25	1.3	25	1.3	24	1.4	25
Project Driveway	20	5.2	21	4.4	20	5.1	20
Granite Dr	13	20.5	13	19.5	15	16.2	14
I-80 WB Ramps	12	16.4	14	13.3	14	13.0	13
I-80 WB On Ramp	25	2.7	25	2.6	25	2.6	25
I-80 EB On Ramp	31	0.8	31	0.7	31	0.7	31
I-80 EB Ramps	18	9.0	18	9.1	18	8.5	18
Schriber Way	25	1.9	25	1.9	25	1.8	25
Bass Pro Dr/Domingue	24	2.9	24	2.6	25	2.0	24
	25	1.0	25	0.8	26	0.7	25
	28	1.0	28	1.1	28	1.1	28
Stadium Dwy	27	3.5	26	4.2	26	3.6	26
Total	20	133.5	21	122.0	21	132.9	21

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	3.1	3.0	3.1	8.9	9.3	5.5
Denied Del/Veh (s)	1.5	1.5	1.5	4.2	4.4	2.6
Total Delay (hr)	186.5	150.9	174.4	259.5	236.9	201.6
Total Del/Veh (s)	87.3	71.4	80.0	120.3	108.1	93.6
Stop Delay (hr)	139.8	107.2	128.2	208.0	187.7	154.2
Stop Del/Veh (s)	65.5	50.7	58.8	96.4	85.6	71.6
Stop/Veh	2.02	1.87	2.03	2.27	2.12	2.07
Travel Dist (mi)	6469.0	6421.5	6657.4	6498.1	6547.1	6518.6
Travel Time (hr)	422.2	384.6	415.8	501.5	481.4	441.1
Avg Speed (mph)	15	17	16	13	14	15
Vehicles Entered	7396	7347	7579	7472	7594	7479
Vehicles Exited	7242	7208	7444	7082	7304	7255
Hourly Exit Rate	7242	7208	7444	7082	7304	7255
Input Volume	49939	49939	49939	49939	49939	49939
% of Volume	15	14	15	14	15	15
Denied Entry Before	5	5	1	4	3	2
Denied Entry After	4	2	6	30	18	10

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	4.3	23.3	0.2	25	25	4.7
	80	2.1	21.0	0.2	26	26	2.2
	107	1.4	17.9	0.1	27	27	1.6
Bass Pro Dr/Domingue	12	3.6	9.6	0.1	20	19	4.0
Schriber Way	11	1.3	11.7	0.1	26	25	1.4
I-80 EB Ramps	10	19.3	27.7	0.1	10	10	20.4
I-80 EB On Ramp	101	3.3	18.2	0.1	23	23	3.4
I-80 WB On Ramp	99	2.1	15.8	0.1	27	28	1.5
I-80 WB Ramps	9	24.3	34.6	0.1	9	9	24.6
Granite Dr	8	28.4	39.1	0.1	8	8	28.9
Project Driveway	24	23.7	39.0	0.1	12	13	19.2
Dwy S of Brace Rd	21	11.9	22.0	0.1	13	20	4.3
Brace Rd	7	17.3	24.0	0.1	8	11	12.0
Taylor Rd	6	47.7	62.2	0.1	7	8	39.2
Total		190.7	366.1	1.5	14	15	167.3

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	26	3.9	26	4.3	26	4.2	25
	27	1.9	27	2.0	26	2.2	26
	28	1.3	28	1.4	27	1.4	27
Bass Pro Dr/Domingue	21	3.3	20	3.6	20	3.4	20
Schriber Way	26	1.3	26	1.2	26	1.3	26
I-80 EB Ramps	10	18.3	10	20.2	10	20.2	11
I-80 EB On Ramp	23	3.3	23	3.3	23	3.5	23
I-80 WB On Ramp	29	1.1	29	1.2	22	5.4	28
I-80 WB Ramps	11	17.2	11	16.8	6	44.5	11
Granite Dr	10	22.8	10	20.9	6	41.5	9
Project Driveway	12	22.2	8	39.5	14	18.6	14
Dwy S of Brace Rd	20	4.5	6	35.3	15	9.2	19
Brace Rd	11	11.3	5	31.3	8	18.5	10
Taylor Rd	8	38.8	6	63.7	7	52.7	8
Total	16	151.1	13	244.7	13	226.6	16

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	49.5	160.1	1.0	22	23	41.2
Brace Rd	7	21.8	37.2	0.1	12	20	7.6
Dwy S of Brace Rd	21	12.1	19.0	0.1	11	12	10.2
Project Driveway	24	37.2	46.7	0.1	6	6	38.3
Granite Dr	8	65.3	80.3	0.1	6	6	64.9
I-80 WB Ramps	9	46.9	57.9	0.1	6	6	48.9
I-80 WB On Ramp	99	4.1	14.6	0.1	21	21	3.8
I-80 EB On Ramp	101	1.2	14.1	0.1	30	30	1.3
I-80 EB Ramps	10	10.0	24.9	0.1	17	17	10.1
Schriber Way	11	1.7	11.1	0.1	25	25	1.8
Bass Pro Dr/Domingue	12	3.3	13.1	0.1	23	23	3.6
	107	0.9	7.7	0.1	25	25	0.9
	80	1.0	17.3	0.1	28	28	0.9
Stadium Dwy	13	4.2	22.1	0.2	25	25	4.0
Total		259.2	526.0	2.3	16	16	237.5

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	23	38.6	23	40.9	23	39.4	18
Brace Rd	23	4.8	20	7.1	9	34.5	7
Dwy S of Brace Rd	25	1.2	25	1.3	7	21.1	6
Project Driveway	16	8.7	17	7.8	3	76.0	4
Granite Dr	9	33.8	9	35.3	4	102.8	4
I-80 WB Ramps	5	50.3	7	39.3	5	53.8	6
I-80 WB On Ramp	21	4.3	21	4.2	21	4.3	22
I-80 EB On Ramp	30	1.3	30	1.2	30	1.1	30
I-80 EB Ramps	17	9.7	17	10.4	17	9.7	17
Schriber Way	24	1.9	25	1.7	25	1.6	25
Bass Pro Dr/Domingue	23	3.4	23	3.4	23	3.1	23
	25	1.0	25	1.0	25	0.9	25
	28	1.0	28	0.9	28	1.0	28
Stadium Dwy	25	4.2	25	4.1	25	4.3	25
Total	19	164.2	19	158.5	13	353.5	13

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	2.8	2.8	2.8	2.8	2.7	2.8
Denied Del/Veh (s)	1.5	1.5	1.5	1.5	1.4	1.5
Total Delay (hr)	115.7	116.6	121.9	111.4	102.8	113.7
Total Del/Veh (s)	59.5	60.1	63.1	57.6	53.9	58.9
Stop Delay (hr)	86.2	87.1	91.4	82.5	75.1	84.5
Stop Del/Veh (s)	44.3	44.9	47.3	42.7	39.4	43.8
Stop/Veh	1.67	1.67	1.73	1.66	1.64	1.68
Travel Dist (mi)	5215.0	5225.1	5202.7	5226.6	5119.9	5197.9
Travel Time (hr)	308.2	309.7	313.8	304.5	291.7	305.6
Avg Speed (mph)	17	17	17	17	18	17
Vehicles Entered	6770	6761	6723	6728	6624	6722
Vehicles Exited	6725	6644	6664	6655	6579	6652
Hourly Exit Rate	6725	6644	6664	6655	6579	6652
Input Volume	40602	40602	40602	40602	40602	40602
% of Volume	17	16	16	16	16	16
Denied Entry Before	0	1	2	3	2	1
Denied Entry After	2	3	1	3	0	0

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	2.2	21.1	0.2	28	28	2.4
	80	1.2	20.1	0.2	28	28	1.2
	107	0.9	17.3	0.1	28	28	0.8
Bass Pro Dr/Domingue	12	3.4	9.4	0.1	20	20	3.5
Schriber Way	11	1.1	11.5	0.1	26	26	1.2
I-80 EB Ramps	10	19.7	27.9	0.1	10	10	18.5
I-80 EB On Ramp	101	2.7	17.0	0.1	25	25	2.7
I-80 WB On Ramp	99	0.7	14.4	0.1	29	30	0.6
I-80 WB Ramps	9	15.6	25.9	0.1	12	12	16.3
Granite Dr	8	16.2	27.0	0.1	12	12	17.1
Project Driveway	24	17.3	32.3	0.1	14	13	19.3
Dwy S of Brace Rd	21	2.7	12.7	0.1	23	22	3.1
Brace Rd	7	7.1	13.8	0.1	15	14	8.2
Taylor Rd	6	23.3	37.7	0.1	12	12	24.1
Total		114.2	288.1	1.5	18	18	119.0

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	28	1.9	28	1.9	28	2.3	28
	28	1.1	28	1.2	27	1.3	28
	28	0.9	28	0.9	28	0.9	29
Bass Pro Dr/Domingue	20	3.3	20	3.4	20	3.3	20
Schriber Way	26	1.1	26	1.1	26	1.1	26
I-80 EB Ramps	10	20.6	10	20.1	10	19.1	10
I-80 EB On Ramp	25	2.7	25	2.8	25	2.6	25
I-80 WB On Ramp	29	1.0	29	0.7	30	0.6	29
I-80 WB Ramps	12	15.4	12	16.0	11	16.8	13
Granite Dr	13	14.3	10	21.0	13	14.6	13
Project Driveway	14	18.1	15	16.9	15	16.9	15
Dwy S of Brace Rd	23	2.7	23	2.7	23	2.7	23
Brace Rd	16	6.3	15	7.1	15	6.6	14
Taylor Rd	12	23.9	12	24.4	12	23.9	13
Total	18	113.3	18	120.1	18	112.8	19

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	34.2	144.9	1.0	24	24	33.9
Brace Rd	7	5.3	20.8	0.1	22	22	4.8
Dwy S of Brace Rd	21	1.1	7.9	0.1	26	26	1.0
Project Driveway	24	7.4	16.9	0.1	17	18	6.9
Granite Dr	8	21.6	36.8	0.1	13	14	17.8
I-80 WB Ramps	9	46.6	57.5	0.1	6	5	50.8
I-80 WB On Ramp	99	3.8	14.4	0.1	21	21	3.7
I-80 EB On Ramp	101	1.0	13.8	0.1	31	31	1.0
I-80 EB Ramps	10	9.1	23.8	0.1	18	18	8.7
Schriber Way	11	1.5	10.9	0.1	25	25	1.6
Bass Pro Dr/Domingue	12	2.6	12.5	0.1	24	25	2.4
	107	0.8	7.3	0.1	25	26	0.7
	80	0.8	17.3	0.1	28	28	0.9
Stadium Dwy	13	2.4	20.7	0.2	27	26	2.8
Total		138.1	405.6	2.3	20	20	137.0

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	24	32.6	24	36.6	24	33.6	24
Brace Rd	22	5.4	21	6.3	22	4.7	22
Dwy S of Brace Rd	26	1.1	25	1.2	26	1.0	26
Project Driveway	17	7.3	16	8.3	18	7.0	17
Granite Dr	13	20.0	10	30.3	13	20.8	14
I-80 WB Ramps	6	49.1	6	42.7	5	50.8	7
I-80 WB On Ramp	22	3.6	21	4.2	21	4.0	22
I-80 EB On Ramp	30	1.0	31	1.0	31	0.9	31
I-80 EB Ramps	16	11.5	18	8.9	19	7.9	18
Schriber Way	25	1.7	25	1.5	25	1.4	26
Bass Pro Dr/Domingue	24	2.7	24	2.6	24	2.5	24
	25	0.8	25	0.7	26	0.7	25
	28	0.8	29	0.7	29	0.7	28
Stadium Dwy	27	2.0	27	2.1	27	2.6	27
Total	20	139.6	20	147.2	20	138.7	21

Project Driveway Option B & C

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	3.1	2.7	3.5	2.7	15.2	5.5
Denied Del/Veh (s)	1.3	1.2	1.5	1.2	6.3	2.3
Total Delay (hr)	170.7	138.3	156.3	154.8	236.6	171.3
Total Del/Veh (s)	69.7	56.7	63.1	62.7	94.9	69.5
Stop Del/Veh (s)	48.2	36.6	41.8	41.2	71.0	47.8
Stop/Veh	1.69	1.52	1.57	1.59	1.91	1.66
Travel Dist (mi)	6197.5	6171.0	6310.0	6292.9	6403.8	6275.0
Travel Time (hr)	358.5	324.5	347.3	344.4	441.7	363.3
Avg Speed (mph)	17	19	18	18	15	18
Vehicles Entered	8444	8446	8581	8529	8648	8534
Vehicles Exited	8411	8455	8544	8551	8554	8503
Hourly Exit Rate	8411	8455	8544	8551	8554	8503
Input Volume	48400	48400	48400	48400	48400	48400
% of Volume	17	17	18	18	18	18
Denied Entry Before	1	1	3	3	4	1
Denied Entry After	3	2	3	3	71	15

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	4.7	16.2	0.2	37	39	4.1
	80	2.4	13.8	0.2	40	42	2.0
	107	2.5	13.7	0.2	41	42	2.1
Bass Pro Dr/Domingue	12	2.6	4.8	0.0	25	26	2.4
Schriber Way	11	1.7	9.5	0.1	32	32	1.6
I-80 EB Ramps	10	19.8	26.1	0.1	11	11	19.9
I-80 EB On Ramp	101	3.6	12.2	0.1	35	35	3.5
I-80 WB On Ramp	99	0.6	10.8	0.1	39	39	0.5
I-80 WB Ramps	9	13.8	22.3	0.1	16	18	11.1
Granite Dr	8	22.9	30.8	0.1	11	14	16.3
Project Driveway	24	46.6	61.1	0.1	8	9	45.4
Dwy S of Brace Rd	21	16.4	22.6	0.1	11	8	26.1
Brace Rd	7	24.6	29.8	0.1	7	5	36.0
Taylor Rd	6	57.9	68.7	0.1	7	5	71.8
Total		220.0	342.4	1.5	16	15	243.0

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	38	4.4	36	5.0	37	4.7	36
	41	2.2	40	2.6	40	2.5	39
	41	2.4	41	2.5	40	2.6	39
Bass Pro Dr/Domingue	26	2.4	25	2.6	26	2.4	22
Schriber Way	32	1.7	32	1.7	32	1.7	31
I-80 EB Ramps	10	20.4	10	20.1	11	19.0	11
I-80 EB On Ramp	34	3.7	35	3.4	35	3.6	34
I-80 WB On Ramp	39	0.5	39	0.6	39	0.6	38
I-80 WB Ramps	18	11.8	16	13.0	18	11.1	11
Granite Dr	13	16.9	14	15.8	14	15.9	6
Project Driveway	16	19.8	15	20.7	12	28.8	4
Dwy S of Brace Rd	21	5.8	22	5.2	13	12.5	6
Brace Rd	10	16.7	11	13.6	8	20.8	5
Taylor Rd	8	46.5	7	54.3	7	49.6	6
Total	19	155.2	19	161.0	18	175.9	11

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	43.3	118.5	1.0	29	29	43.6
Brace Rd	7	7.2	18.8	0.1	24	24	7.4
Dwy S of Brace Rd	21	2.1	7.4	0.1	28	28	2.1
Project Driveway	24	7.8	13.7	0.1	18	17	8.7
Granite Dr	8	31.9	43.8	0.1	11	13	27.3
I-80 WB Ramps	9	38.1	46.2	0.1	7	8	36.0
I-80 WB On Ramp	99	4.5	12.0	0.1	25	25	4.6
I-80 EB On Ramp	101	0.8	10.5	0.1	40	41	0.8
I-80 EB Ramps	10	10.3	20.6	0.1	21	20	10.7
Schriber Way	11	2.4	9.5	0.1	29	29	2.5
Bass Pro Dr/Domingue	12	3.1	10.4	0.1	29	29	3.0
	107	1.0	4.1	0.0	29	30	0.9
	80	1.1	12.6	0.2	44	44	1.2
Stadium Dwy	13	4.2	15.0	0.2	37	37	4.4
Total		157.9	343.0	2.3	24	24	153.2

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	29	46.6	31	36.7	29	45.4	29
Brace Rd	25	7.0	25	6.6	23	8.2	25
Dwy S of Brace Rd	28	2.0	28	2.1	28	2.1	28
Project Driveway	19	7.1	18	8.4	19	7.6	19
Granite Dr	14	24.0	9	40.8	11	32.1	11
I-80 WB Ramps	9	29.7	6	44.1	7	37.2	6
I-80 WB On Ramp	26	4.4	25	4.6	26	4.4	25
I-80 EB On Ramp	41	0.8	40	0.9	40	0.8	41
I-80 EB Ramps	22	9.1	20	10.9	20	10.5	21
Schriber Way	30	2.1	28	2.6	28	2.6	30
Bass Pro Dr/Domingue	30	2.9	28	3.7	29	3.2	30
	30	0.9	28	1.1	28	1.1	30
	45	1.0	44	1.2	44	1.1	44
Stadium Dwy	36	4.6	38	3.8	37	4.3	37
Total	25	142.1	23	167.4	24	160.5	23

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	2.3	3.3	2.5	2.8	2.6	2.7
Denied Del/Veh (s)	1.1	1.6	1.2	1.3	1.3	1.3
Total Delay (hr)	97.0	106.7	103.7	108.9	100.5	103.4
Total Del/Veh (s)	46.2	49.9	48.4	50.9	47.5	48.6
Stop Del/Veh (s)	31.3	34.2	33.1	35.4	32.4	33.3
Stop/Veh	1.43	1.46	1.42	1.44	1.40	1.43
Travel Dist (mi)	4913.2	5022.7	4960.2	4972.9	4883.8	4950.6
Travel Time (hr)	253.8	268.1	262.4	268.5	257.2	262.0
Avg Speed (mph)	20	19	19	19	19	19
Vehicles Entered	7319	7441	7456	7481	7370	7414
Vehicles Exited	7305	7417	7412	7450	7375	7392
Hourly Exit Rate	7305	7417	7412	7450	7375	7392
Input Volume	39873	39873	39873	39873	39873	39873
% of Volume	18	19	19	19	18	19
Denied Entry Before	2	2	3	10	1	2
Denied Entry After	2	0	2	3	0	0

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	2.0	16.3	0.2	36	37	1.9
	80	1.1	15.3	0.2	36	36	1.0
	107	1.5	15.5	0.2	36	36	1.4
Bass Pro Dr/Domingue	12	2.8	5.6	0.0	21	22	2.7
Schriber Way	11	1.6	9.4	0.1	32	32	1.6
I-80 EB Ramps	10	20.2	26.3	0.1	10	10	20.3
I-80 EB On Ramp	101	3.7	13.3	0.1	32	32	3.6
I-80 WB On Ramp	99	0.6	10.8	0.1	39	39	0.5
I-80 WB Ramps	9	11.8	19.1	0.1	17	18	10.9
Granite Dr	8	16.5	24.5	0.1	13	13	17.0
Project Driveway	24	18.9	30.7	0.1	16	16	20.1
Dwy S of Brace Rd	21	3.3	9.3	0.1	26	26	3.4
Brace Rd	7	5.7	10.8	0.1	19	20	5.1
Taylor Rd	6	24.7	35.6	0.1	13	12	26.3
Total		114.3	242.6	1.5	22	22	115.8

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	37	1.8	37	1.8	36	2.1	36
	36	1.1	36	1.0	36	1.2	36
	36	1.5	36	1.6	36	1.5	36
Bass Pro Dr/Domingue	20	3.1	20	3.1	22	2.5	22
Schriber Way	32	1.7	32	1.7	33	1.5	32
I-80 EB Ramps	10	20.6	11	20.1	11	19.4	10
I-80 EB On Ramp	31	3.9	32	3.5	32	3.6	31
I-80 WB On Ramp	39	0.7	39	0.5	39	0.5	39
I-80 WB Ramps	18	11.3	17	12.0	16	12.8	17
Granite Dr	14	15.2	14	15.6	13	17.2	13
Project Driveway	15	20.6	18	16.7	17	18.5	17
Dwy S of Brace Rd	26	3.5	27	3.0	26	3.5	27
Brace Rd	18	6.2	19	5.9	18	6.4	21
Taylor Rd	12	25.6	13	23.9	12	25.6	14
Total	22	116.8	22	110.4	22	116.1	22

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	33.9	108.7	1.0	32	32	32.4
Brace Rd	7	5.6	17.1	0.1	26	26	5.7
Dwy S of Brace Rd	21	1.6	6.9	0.1	30	31	1.5
Project Driveway	24	7.4	12.9	0.1	19	19	7.0
Granite Dr	8	19.1	31.0	0.1	16	17	18.2
I-80 WB Ramps	9	37.2	45.3	0.1	7	8	32.0
I-80 WB On Ramp	99	4.7	12.2	0.1	25	25	4.5
I-80 EB On Ramp	101	0.7	10.4	0.1	41	41	0.7
I-80 EB Ramps	10	9.3	20.3	0.1	21	21	9.2
Schriber Way	11	2.2	9.2	0.1	30	30	2.2
Bass Pro Dr/Domingue	12	2.4	9.7	0.1	31	33	1.9
	107	0.7	4.1	0.0	30	31	0.6
	80	0.7	14.8	0.2	38	38	0.6
Stadium Dwy	13	2.2	15.9	0.2	35	37	1.5
Total		127.6	318.6	2.3	26	26	118.1

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	32	33.7	33	32.1	31	36.3	31
Brace Rd	26	5.9	27	4.9	26	5.6	26
Dwy S of Brace Rd	30	1.7	31	1.5	29	1.7	31
Project Driveway	18	7.6	18	7.7	19	7.6	20
Granite Dr	16	20.2	17	17.8	15	21.3	17
I-80 WB Ramps	7	37.3	7	41.7	7	41.3	8
I-80 WB On Ramp	25	4.8	25	4.7	25	4.8	26
I-80 EB On Ramp	41	0.7	41	0.8	41	0.8	41
I-80 EB Ramps	20	9.9	21	9.3	20	9.7	22
Schriber Way	30	2.2	30	2.2	30	2.2	30
Bass Pro Dr/Domingue	30	2.6	30	2.7	31	2.4	32
	30	0.8	29	0.9	30	0.8	30
	38	0.6	38	0.7	38	0.7	38
Stadium Dwy	35	2.2	35	2.5	34	2.5	35
Total	25	130.1	26	129.6	25	137.8	26

Cumulative Conditions – Long Term Baseline

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	537.9	449.6	520.6	642.3	571.2	544.3
Denied Del/Veh (s)	179.5	152.6	171.5	209.7	191.1	181.1
Total Delay (hr)	407.0	533.1	523.2	535.0	480.0	495.6
Total Del/Veh (s)	142.2	187.9	180.1	189.6	170.0	173.9
Stop Del/Veh (s)	109.9	148.2	140.8	149.2	134.9	136.5
Stop/Veh	2.02	2.42	2.29	2.45	2.21	2.28
Travel Dist (mi)	6793.9	6755.0	6753.3	6713.7	6637.4	6730.7
Travel Time (hr)	1138.6	1175.7	1237.2	1368.9	1240.1	1232.1
Avg Speed (mph)	11	9	9	9	10	10
Vehicles Entered	9798	9742	9946	9673	9660	9765
Vehicles Exited	9511	9432	9494	9241	9187	9377
Hourly Exit Rate	9511	9432	9494	9241	9187	9377
Input Volume	61845	61845	61845	61845	61845	61845
% of Volume	15	15	15	15	15	15
Denied Entry Before	56	8	40	49	80	45
Denied Entry After	989	868	984	1352	1100	1054

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	28.0	42.6	0.2	15	40	3.4
	80	59.3	70.6	0.2	8	25	10.9
	107	63.4	71.0	0.1	5	8	38.5
Bass Pro Dr/Domingue	12	23.6	29.4	0.1	10	10	23.4
Schriber Way	11	5.8	13.3	0.1	23	26	3.9
I-80 EB Ramps	10	22.7	28.9	0.1	10	10	20.3
I-80 EB On Ramp	101	3.4	12.6	0.1	33	34	3.1
I-80 WB On Ramp	99	1.2	11.4	0.1	37	36	1.5
I-80 WB Ramps	9	24.1	34.9	0.1	10	8	32.2
Granite Dr	8	22.1	30.3	0.1	11	11	20.7
Commercial Developme	24	3.3	15.1	0.1	32	33	3.1
Dwy S of Brace Rd	21	1.4	7.7	0.1	34	34	1.4
Brace Rd	7	11.0	16.2	0.1	13	12	12.1
Taylor Rd	6	21.9	33.1	0.1	14	13	24.0
Total		291.2	417.2	1.5	13	17	198.5

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	7	71.2	25	12.6	12	37.2	19
	5	92.9	7	72.5	7	69.9	8
	4	83.2	5	74.5	5	72.1	6
Bass Pro Dr/Domingue	9	25.4	10	24.7	9	25.8	12
Schriber Way	23	5.9	23	5.7	20	7.6	22
I-80 EB Ramps	9	23.6	10	22.1	9	24.7	9
I-80 EB On Ramp	34	3.2	33	3.5	33	3.6	33
I-80 WB On Ramp	39	0.7	36	1.4	37	1.2	38
I-80 WB Ramps	13	17.5	10	23.5	10	23.2	10
Granite Dr	11	22.2	11	23.0	11	22.0	11
Commercial Developme	31	3.6	32	3.3	32	3.2	32
Dwy S of Brace Rd	34	1.4	34	1.3	33	1.5	35
Brace Rd	13	10.6	13	10.8	12	11.9	14
Taylor Rd	13	23.0	15	20.0	15	20.0	13
Total	11	384.3	13	298.8	12	323.9	14

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	123.2	162.3	0.5	11	19	56.4
Brace Rd	7	19.3	30.7	0.1	15	15	18.5
Dwy S of Brace Rd	21	10.1	15.4	0.1	14	17	7.4
Commercial Developme	24	26.9	33.6	0.1	8	11	16.6
Granite Dr	8	102.8	118.3	0.1	4	5	83.7
I-80 WB Ramps	9	35.0	44.5	0.1	8	8	35.2
I-80 WB On Ramp	99	3.9	10.5	0.1	29	30	3.8
I-80 EB On Ramp	101	6.7	16.4	0.1	26	24	7.7
I-80 EB Ramps	10	65.3	813.6	0.1	6	6	64.3
	11	27.5	36.7	0.1	8	8	28.0
Bass Pro Dr/Domingue	12	33.5	41.2	0.1	7	7	33.6
	107	6.0	12.6	0.1	23	23	5.9
	80	2.3	10.2	0.1	38	37	2.5
Stadium Dwy	13	5.4	15.9	0.2	35	35	5.5
Total		468.0	1361.8	1.8	11	13	368.9

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	12	108.1	8	193.1	10	144.2	13
Brace Rd	17	14.9	18	13.8	15	17.9	10
Dwy S of Brace Rd	13	11.1	16	7.8	13	10.3	11
Commercial Developme	6	36.9	9	22.4	7	32.9	9
Granite Dr	4	111.0	4	96.4	4	117.1	4
I-80 WB Ramps	9	31.1	9	30.8	7	37.2	7
I-80 WB On Ramp	29	4.0	30	3.7	29	4.1	29
I-80 EB On Ramp	26	6.6	29	4.7	23	8.5	27
I-80 EB Ramps	6	67.0	6	66.1	6	66.7	6
	8	26.8	8	27.4	8	28.4	8
Bass Pro Dr/Domingue	7	34.6	8	32.4	7	34.3	8
	23	6.0	22	6.3	23	5.8	23
	38	2.3	38	2.3	39	2.0	38
Stadium Dwy	32	6.9	37	4.5	34	5.7	37
Total	11	467.4	10	511.7	10	515.1	11

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	1280.3	1079.2	963.2	1031.3	963.7	1063.5
Denied Del/Veh (s)	325.3	273.3	243.1	263.6	250.8	271.4
Total Delay (hr)	735.9	719.2	699.2	690.2	656.8	700.3
Total Del/Veh (s)	212.7	201.1	194.9	196.8	187.4	198.6
Stop Del/Veh (s)	169.4	155.8	151.1	153.2	142.9	154.5
Stop/Veh	2.58	2.56	2.54	2.54	2.54	2.56
Travel Dist (mi)	7533.3	7812.7	7777.5	7581.4	7754.3	7691.8
Travel Time (hr)	2233.5	2023.3	1888.2	1940.5	1844.8	1986.0
Avg Speed (mph)	8	8	8	8	9	8
Vehicles Entered	11626	12135	12185	11915	11912	11954
Vehicles Exited	11418	11863	11972	11616	11724	11718
Hourly Exit Rate	11418	11863	11972	11616	11724	11718
Input Volume	78883	78883	78883	78883	78883	78883
% of Volume	14	15	15	15	15	15
Denied Entry Before	100	129	98	121	88	102
Denied Entry After	2544	2079	2079	2170	1920	2156

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	78.3	332.9	0.2	7	6	86.4
	80	58.9	70.1	0.2	8	7	63.5
	107	50.1	58.1	0.1	7	7	53.1
Bass Pro Dr/Domingue	12	40.3	45.8	0.1	6	6	40.5
Schriber Way	11	29.1	36.8	0.1	8	8	28.0
I-80 EB Ramps	10	42.1	49.1	0.1	6	5	46.2
I-80 EB On Ramp	101	4.4	12.2	0.1	35	34	4.4
I-80 WB On Ramp	99	2.1	12.3	0.1	34	34	2.1
I-80 WB Ramps	9	34.1	818.6	0.1	8	6	42.2
Granite Dr	8	35.8	44.5	0.1	8	6	44.5
Commercial Developme	24	20.7	32.6	0.1	15	16	17.4
Dwy S of Brace Rd	21	23.3	30.2	0.1	9	11	17.8
Brace Rd	7	23.3	28.7	0.1	7	8	21.4
Taylor Rd	6	29.1	40.0	0.1	11	12	27.7
Total		471.5	1611.8	1.5	9	9	495.2

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	7	76.0	7	75.0	6	81.5	7
	9	53.7	8	59.7	8	61.7	8
	7	45.9	7	51.5	7	51.4	7
Bass Pro Dr/Domingue	6	37.7	6	40.2	6	40.0	6
Schriber Way	8	29.3	9	27.0	8	30.6	8
I-80 EB Ramps	6	36.9	6	42.6	6	42.0	6
I-80 EB On Ramp	35	4.3	35	4.2	34	4.7	35
I-80 WB On Ramp	34	2.2	34	2.3	35	1.9	35
I-80 WB Ramps	8	35.3	9	29.3	8	34.0	9
Granite Dr	8	33.1	8	32.5	7	37.6	8
Commercial Developme	16	18.9	11	30.1	14	23.1	19
Dwy S of Brace Rd	9	23.5	7	30.4	9	24.4	10
Brace Rd	7	23.6	7	25.7	7	23.1	8
Taylor Rd	11	28.6	11	31.4	11	29.5	12
Total	9	448.9	9	481.9	9	485.4	9

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	128.9	163.0	0.4	10	11	110.3
Brace Rd	7	21.5	36.3	0.1	14	15	19.4
Dwy S of Brace Rd	21	1.7	7.0	0.1	30	30	1.8
Commercial Developme	24	1.2	7.9	0.1	34	30	2.3
Granite Dr	8	40.3	51.6	0.1	9	6	67.8
I-80 WB Ramps	9	43.8	52.6	0.1	6	5	53.4
I-80 WB On Ramp	99	3.7	10.1	0.1	30	29	4.0
I-80 EB On Ramp	101	2.7	12.3	0.1	34	34	2.7
I-80 EB Ramps	10	65.6	285.5	0.1	6	5	68.0
	11	43.9	51.0	0.1	5	6	43.1
Bass Pro Dr/Domingue	12	48.4	55.8	0.1	5	5	48.3
	107	6.0	12.2	0.1	23	23	5.8
	80	1.9	10.1	0.1	40	40	1.8
Stadium Dwy	13	10.2	21.1	0.2	26	26	10.5
Total		419.7	776.8	1.7	11	11	439.3

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	7	208.0	11	114.7	10	127.7	14
Brace Rd	13	23.3	14	20.8	14	22.0	13
Dwy S of Brace Rd	30	1.7	30	1.7	30	1.6	30
Commercial Developme	36	0.8	35	0.9	36	0.7	34
Granite Dr	11	31.1	11	30.3	11	30.3	9
I-80 WB Ramps	6	44.6	7	41.7	7	39.4	7
I-80 WB On Ramp	30	3.6	30	3.8	32	3.3	30
I-80 EB On Ramp	33	3.1	37	1.8	35	2.4	32
I-80 EB Ramps	6	56.6	6	65.7	5	69.0	5
	6	42.4	5	44.0	5	46.1	5
Bass Pro Dr/Domingue	6	44.3	5	49.9	5	49.8	5
	23	5.9	23	5.9	22	6.0	22
	40	1.9	39	2.0	40	1.9	40
Stadium Dwy	25	11.2	26	10.3	28	9.3	27
Total	10	478.5	12	393.4	11	409.7	12

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	337.0	350.1	353.8	150.6	282.7	294.8
Denied Del/Veh (s)	101.1	105.6	106.8	46.0	86.3	89.3
Total Delay (hr)	348.7	362.6	353.8	326.4	349.2	348.1
Total Del/Veh (s)	105.8	110.4	109.7	98.0	107.1	106.2
Stop Del/Veh (s)	82.1	86.3	85.5	74.6	82.5	82.2
Stop/Veh	1.78	1.82	1.82	1.74	1.78	1.79
Travel Dist (mi)	6889.0	6911.0	6802.1	6979.0	6882.0	6892.6
Travel Time (hr)	893.5	920.5	911.7	686.6	839.0	850.3
Avg Speed (mph)	12	12	12	13	12	12
Vehicles Entered	11403	11328	11117	11526	11218	11316
Vehicles Exited	11257	11190	10999	11403	11179	11208
Hourly Exit Rate	11257	11190	10999	11403	11179	11208
Input Volume	59592	59592	59592	59592	59592	59592
% of Volume	19	19	18	19	19	19
Denied Entry Before	121	47	55	11	37	52
Denied Entry After	603	611	813	269	580	573

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	12.3	24.2	0.2	25	15	28.9
	80	25.9	37.2	0.2	15	10	42.7
	107	35.6	42.4	0.1	8	7	43.2
Bass Pro Dr/Domingue	12	31.5	74.8	0.1	9	8	34.3
Schriber Way	11	10.4	18.1	0.1	17	17	10.2
I-80 EB Ramps	10	31.5	37.9	0.1	7	8	28.2
I-80 EB On Ramp	101	3.5	12.1	0.1	35	36	3.2
I-80 WB On Ramp	99	1.7	11.9	0.1	36	36	1.6
I-80 WB Ramps	9	17.4	284.4	0.1	13	13	18.4
Granite Dr	8	21.7	29.6	0.1	11	11	21.6
Commercial Developme	24	5.5	17.0	0.1	27	27	5.6
Dwy S of Brace Rd	21	5.3	12.6	0.1	23	21	6.0
Brace Rd	7	16.2	21.4	0.1	10	10	16.0
Taylor Rd	6	28.1	38.9	0.1	12	10	33.0
Total		246.4	662.3	1.5	15	13	292.9

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	26	11.7	33	6.8	31	7.3	33
	15	26.1	20	16.7	21	15.3	14
	8	36.4	10	27.7	10	28.1	7
Bass Pro Dr/Domingue	9	30.8	10	28.4	9	31.9	9
Schriber Way	19	8.1	15	12.2	17	9.7	16
I-80 EB Ramps	7	31.2	6	39.0	9	25.8	7
I-80 EB On Ramp	35	3.5	34	4.1	35	3.3	35
I-80 WB On Ramp	35	2.0	36	1.6	36	1.4	35
I-80 WB Ramps	13	17.4	15	14.4	13	18.5	13
Granite Dr	10	26.4	12	19.3	12	20.6	12
Commercial Developme	27	5.8	28	5.1	26	5.9	28
Dwy S of Brace Rd	25	4.4	25	4.2	21	6.3	22
Brace Rd	10	15.1	10	15.8	9	17.1	9
Taylor Rd	11	28.6	11	29.1	12	27.1	14
Total	15	247.6	15	224.4	16	218.5	14

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	29.3	77.0	0.6	29	28	31.0
Brace Rd	7	6.8	18.4	0.1	25	25	6.4
Dwy S of Brace Rd	21	1.3	6.7	0.1	31	32	1.2
Commercial Developme	24	0.8	7.9	0.1	36	36	0.7
Granite Dr	8	26.3	37.1	0.1	12	13	24.0
I-80 WB Ramps	9	51.8	60.2	0.1	6	5	53.4
I-80 WB On Ramp	99	4.3	10.9	0.1	28	28	4.2
I-80 EB On Ramp	101	1.9	11.6	0.1	36	41	0.6
I-80 EB Ramps	10	28.6	47.7	0.1	11	17	15.3
	11	36.8	51.7	0.1	6	8	30.1
Bass Pro Dr/Domingue	12	72.6	79.8	0.1	4	4	70.4
	107	6.3	13.7	0.1	24	25	6.1
	80	1.1	8.1	0.1	42	42	1.1
Stadium Dwy	13	5.9	16.7	0.2	33	34	5.7
Total		273.9	447.5	1.9	16	17	250.2

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	28	29.6	29	27.3	28	29.5	29
Brace Rd	25	6.3	27	5.2	25	6.7	22
Dwy S of Brace Rd	31	1.3	32	1.1	32	1.3	30
Commercial Developme	35	0.9	37	0.6	37	0.7	36
Granite Dr	8	44.6	15	19.9	15	19.7	14
I-80 WB Ramps	5	63.4	6	46.9	6	47.5	6
I-80 WB On Ramp	28	4.3	28	4.3	28	4.3	28
I-80 EB On Ramp	41	0.7	25	7.1	41	0.7	41
I-80 EB Ramps	13	21.8	5	68.6	15	18.9	14
	7	33.6	5	49.7	7	33.6	6
Bass Pro Dr/Domingue	4	71.4	4	75.8	4	69.3	4
	24	6.3	24	6.4	24	6.3	24
	43	1.0	42	1.2	42	1.1	42
Stadium Dwy	33	6.2	33	6.1	33	5.9	34
Total	15	291.4	15	320.2	17	245.6	16

Cumulative Conditions – Long Term Plus Project

Project Driveway Option A

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	268.0	348.1	317.1	304.6	330.8	313.7
Denied Del/Veh (s)	94.7	125.9	112.0	108.2	116.3	111.4
Total Delay (hr)	721.1	698.0	674.9	690.1	687.4	694.3
Total Del/Veh (s)	271.1	273.8	254.5	268.1	262.5	266.0
Stop Delay (hr)	640.1	616.1	596.3	617.0	611.9	616.3
Stop Del/Veh (s)	240.7	241.7	224.8	239.7	233.7	236.1
Stop/Veh	2.82	2.99	2.70	2.76	2.76	2.81
Travel Dist (mi)	6551.2	6426.4	6531.9	6349.3	6621.6	6496.1
Travel Time (hr)	1224.0	1276.3	1226.1	1222.0	1256.1	1240.9
Avg Speed (mph)	7	7	7	7	7	7
Vehicles Entered	9155	8819	9208	8939	9077	9038
Vehicles Exited	8307	8002	8345	8048	8281	8196
Hourly Exit Rate	8307	8002	8345	8048	8281	8196
Input Volume	67026	67026	67026	67026	67026	67026
% of Volume	12	12	12	12	12	12
Denied Entry Before	4	3	3	3	4	2
Denied Entry After	1035	1134	984	1198	1165	1102

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	7.0	26.5	0.2	23	16	19.4
	80	26.4	45.0	0.2	12	8	53.3
	107	67.9	83.9	0.1	6	4	94.4
Bass Pro Dr/Domingue	12	17.8	23.8	0.1	8	7	19.4
Schriber Way	11	4.7	14.6	0.1	21	21	4.4
I-80 EB Ramps	10	18.3	26.4	0.1	10	10	19.7
I-80 EB On Ramp	101	2.4	15.6	0.1	27	27	2.4
I-80 WB On Ramp	99	3.9	17.6	0.1	24	28	1.4
I-80 WB Ramps	9	24.7	36.3	0.1	9	10	20.4
Granite Dr	8	26.0	37.0	0.1	9	9	25.8
Project Driveway	24	6.8	21.7	0.1	21	20	8.0
Dwy S of Brace Rd	21	1.5	11.0	0.1	26	25	1.8
Brace Rd	7	11.7	18.4	0.1	11	12	10.0
Taylor Rd	6	22.2	36.7	0.1	12	12	22.9
Total		241.4	414.6	1.5	13	11	303.3

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	28	1.8	23	7.2	26	4.1	28
	18	11.7	8	48.3	16	17.0	27
	5	83.0	5	83.5	7	56.7	12
Bass Pro Dr/Domingue	8	18.4	8	16.7	8	17.5	8
Schriber Way	21	4.4	22	4.0	19	5.9	21
I-80 EB Ramps	11	17.6	12	15.4	11	17.1	9
I-80 EB On Ramp	27	2.4	28	2.1	27	2.4	26
I-80 WB On Ramp	29	0.8	29	0.9	29	1.2	15
I-80 WB Ramps	13	13.6	11	18.0	10	21.2	5
Granite Dr	13	15.0	9	25.1	8	29.9	7
Project Driveway	22	5.9	23	5.6	22	5.8	20
Dwy S of Brace Rd	27	1.3	27	1.3	27	1.2	25
Brace Rd	11	11.3	11	11.6	12	10.2	9
Taylor Rd	12	22.2	11	26.6	14	18.7	13
Total	14	209.5	12	266.5	14	209.0	14

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	347.9	671.7	0.5	5	5	347.1
Brace Rd	7	130.0	144.8	0.1	3	3	138.1
Dwy S of Brace Rd	21	46.8	54.1	0.1	4	4	47.7
	24	88.8	100.5	0.1	3	3	88.2
Granite Dr	8	145.4	162.2	0.1	3	3	148.1
I-80 WB Ramps	9	50.8	64.3	0.1	5	5	53.9
I-80 WB On Ramp	99	22.8	35.6	0.1	9	10	21.3
I-80 EB On Ramp	101	40.3	53.1	0.1	8	8	38.3
I-80 EB Ramps	10	72.0	88.1	0.1	5	5	68.0
	11	23.3	33.3	0.1	9	8	24.4
Bass Pro Dr/Domingue	12	29.9	39.9	0.1	8	8	30.7
	107	3.3	10.1	0.1	19	19	3.3
	80	2.7	19.1	0.1	26	26	2.6
Stadium Dwy	13	5.1	22.6	0.2	25	25	4.8
Total		1009.1	1499.3	1.8	5	5	1016.4

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	5	310.8	5	343.8	4	384.9	4
Brace Rd	3	114.5	3	118.8	3	140.1	3
Dwy S of Brace Rd	4	40.6	4	45.7	4	51.3	4
	3	79.4	3	88.6	3	96.5	3
Granite Dr	3	127.7	3	144.9	3	159.1	3
I-80 WB Ramps	5	50.2	6	42.6	5	52.5	5
I-80 WB On Ramp	7	33.0	12	16.2	9	23.4	11
I-80 EB On Ramp	6	55.3	9	35.6	8	39.5	9
I-80 EB Ramps	5	78.2	5	74.2	5	70.1	5
	8	24.5	9	22.0	8	24.0	9
Bass Pro Dr/Domingue	7	31.9	8	28.6	8	29.1	8
	19	3.2	19	3.2	19	3.1	18
	26	2.8	25	2.8	26	2.7	26
Stadium Dwy	25	4.4	24	6.3	25	4.7	25
Total	6	956.5	6	973.5	5	1081.0	5

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	1072.4	1016.9	1030.2	1071.2	1077.9	1053.7
Denied Del/Veh (s)	295.8	284.0	290.6	302.2	304.6	295.3
Total Delay (hr)	985.4	995.1	966.8	1035.5	957.0	987.9
Total Del/Veh (s)	335.8	335.1	331.0	358.0	331.5	338.3
Stop Delay (hr)	881.0	886.0	869.9	927.3	859.7	884.8
Stop Del/Veh (s)	300.2	298.4	297.8	320.6	297.8	303.0
Stop/Veh	3.40	3.45	3.36	3.55	3.31	3.41
Travel Dist (mi)	7322.9	7475.9	7337.9	7249.8	7198.8	7317.0
Travel Time (hr)	2322.2	2282.0	2261.5	2368.3	2295.4	2305.9
Avg Speed (mph)	6	6	6	6	6	6
Vehicles Entered	10092	10174	10032	9910	9890	10021
Vehicles Exited	9077	9291	9108	8924	8935	9066
Hourly Exit Rate	9077	9291	9108	8924	8935	9066
Input Volume	89237	89237	89237	89237	89237	89237
% of Volume	10	10	10	10	10	10
Denied Entry Before	7	12	5	7	9	6
Denied Entry After	2961	2715	2729	2853	2849	2823

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	143.5	1373.0	0.2	4	4	148.2
	80	102.9	121.3	0.2	5	5	102.5
	107	110.1	126.0	0.1	4	4	107.4
Bass Pro Dr/Domingue	12	62.6	69.4	0.1	3	3	62.1
Schriber Way	11	98.6	109.0	0.1	3	3	94.4
I-80 EB Ramps	10	94.6	107.3	0.1	3	3	88.6
I-80 EB On Ramp	101	149.6	167.9	0.1	3	3	135.6
I-80 WB On Ramp	99	130.9	144.3	0.1	3	3	123.9
I-80 WB Ramps	9	109.7	122.9	0.1	3	3	105.8
Granite Dr	8	54.1	66.1	0.1	5	5	54.7
Project Driveway	24	16.2	31.5	0.1	15	14	16.4
Dwy S of Brace Rd	21	5.3	15.1	0.1	19	18	5.7
Brace Rd	7	25.1	31.9	0.1	7	7	23.8
Taylor Rd	6	27.3	41.9	0.1	11	12	23.3
Total		1130.6	2527.8	1.5	4	4	1092.2

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	4	142.7	4	145.2	3	150.0	4
	5	98.7	5	105.0	4	107.2	5
	4	109.0	4	114.3	4	112.7	4
Bass Pro Dr/Domingue	3	62.9	3	65.4	3	64.4	3
Schriber Way	3	94.5	3	99.9	2	112.0	3
I-80 EB Ramps	3	95.1	3	94.7	2	102.5	3
I-80 EB On Ramp	3	148.8	2	155.8	2	157.7	3
I-80 WB On Ramp	3	126.9	3	134.8	3	135.0	3
I-80 WB Ramps	3	103.6	3	111.8	2	115.9	3
Granite Dr	5	53.7	6	47.5	5	52.4	5
Project Driveway	15	15.4	16	13.9	14	18.5	14
Dwy S of Brace Rd	19	5.4	19	5.2	18	5.9	20
Brace Rd	7	24.4	6	25.9	6	28.5	7
Taylor Rd	10	31.9	11	28.3	10	32.3	13
Total	4	1113.0	4	1147.8	4	1194.9	4

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	62.3	113.5	0.4	14	13	72.8
Brace Rd	7	54.4	69.5	0.1	7	5	80.2
Dwy S of Brace Rd	21	36.6	43.8	0.1	5	4	43.6
	24	78.8	88.1	0.1	3	3	78.0
Granite Dr	8	122.1	136.7	0.1	3	3	118.0
I-80 WB Ramps	9	60.1	72.4	0.1	5	5	56.6
I-80 WB On Ramp	99	4.7	15.1	0.1	20	21	4.3
I-80 EB On Ramp	101	3.2	16.1	0.1	26	28	2.3
I-80 EB Ramps	10	26.1	40.9	0.1	10	9	31.2
	11	28.8	38.0	0.1	7	7	31.7
Bass Pro Dr/Domingue	12	35.9	45.7	0.1	7	7	34.4
	107	2.8	9.6	0.1	20	20	2.8
	80	1.8	18.2	0.1	27	27	1.8
Stadium Dwy	13	9.5	27.7	0.2	20	19	10.7
Total		527.0	735.3	1.7	9	8	568.3

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	16	46.4	14	63.1	12	86.8	17
Brace Rd	7	49.4	9	35.0	7	54.5	7
Dwy S of Brace Rd	5	35.9	6	25.6	5	37.8	4
	3	80.5	4	71.0	3	77.5	3
Granite Dr	3	122.6	3	117.5	3	121.1	3
I-80 WB Ramps	5	57.1	4	65.0	5	61.7	5
I-80 WB On Ramp	21	4.4	22	4.0	18	6.8	21
I-80 EB On Ramp	28	2.1	30	1.3	19	8.8	30
I-80 EB Ramps	10	29.5	14	14.8	8	36.5	13
	6	33.6	8	23.9	8	27.4	8
Bass Pro Dr/Domingue	6	40.9	7	33.3	7	32.3	6
	19	3.0	20	2.6	20	2.7	19
	27	1.8	27	1.7	27	1.8	27
Stadium Dwy	20	10.1	20	9.1	21	8.8	21
Total	9	517.2	9	468.0	8	564.5	9

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	360.0	476.3	609.3	429.5	461.7	467.4
Denied Del/Veh (s)	108.6	143.7	184.6	131.5	140.8	141.8
Total Delay (hr)	727.6	662.1	690.0	657.5	645.0	676.4
Total Del/Veh (s)	234.4	217.6	231.7	218.7	211.1	222.8
Stop Delay (hr)	633.5	574.8	602.4	574.7	561.2	589.3
Stop Del/Veh (s)	204.1	188.9	202.3	191.2	183.7	194.1
Stop/Veh	2.99	2.88	2.95	2.80	2.75	2.88
Travel Dist (mi)	7310.8	7221.8	7118.3	7170.6	7246.7	7213.7
Travel Time (hr)	1354.0	1401.3	1557.8	1348.0	1370.5	1406.3
Avg Speed (mph)	7	8	8	8	8	8
Vehicles Entered	10769	10564	10274	10409	10574	10519
Vehicles Exited	9927	9804	9593	9718	9824	9773
Hourly Exit Rate	9927	9804	9593	9718	9824	9773
Input Volume	70325	70325	70325	70325	70325	70325
% of Volume	14	14	14	14	14	14
Denied Entry Before	8	8	9	6	11	6
Denied Entry After	1171	1367	1611	1351	1230	1343

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	39.9	87.0	0.2	10	8	58.2
	80	42.0	60.7	0.2	9	7	63.8
	107	61.4	77.6	0.1	6	6	72.1
Bass Pro Dr/Domingue	12	27.5	33.7	0.1	6	5	29.8
Schriber Way	11	9.9	20.1	0.1	15	16	8.2
I-80 EB Ramps	10	28.7	37.2	0.1	7	8	26.4
I-80 EB On Ramp	101	35.9	51.6	0.1	8	7	47.4
I-80 WB On Ramp	99	52.4	65.9	0.1	6	6	58.7
I-80 WB Ramps	9	46.3	56.8	0.1	5	6	45.3
Granite Dr	8	47.1	57.6	0.1	6	6	43.7
Project Driveway	24	26.4	41.5	0.1	11	11	25.9
Dwy S of Brace Rd	21	3.4	13.2	0.1	22	21	3.6
Brace Rd	7	14.4	21.2	0.1	10	10	13.7
Taylor Rd	6	25.0	39.5	0.1	11	12	23.8
Total		460.0	663.8	1.5	8	8	520.7

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	7	67.4	24	6.3	7	64.2	24
	7	64.1	15	17.6	7	57.3	19
	6	71.1	7	56.6	6	67.6	9
Bass Pro Dr/Domingue	6	27.7	6	26.0	5	28.0	6
Schriber Way	15	9.7	16	8.2	16	8.2	12
I-80 EB Ramps	9	24.0	7	30.0	8	27.0	6
I-80 EB On Ramp	11	23.5	6	51.9	13	18.0	8
I-80 WB On Ramp	7	49.6	5	64.5	7	47.0	8
I-80 WB Ramps	6	44.0	5	52.2	5	49.8	6
Granite Dr	6	45.9	5	50.2	5	49.8	6
Project Driveway	12	22.5	10	29.1	11	26.4	11
Dwy S of Brace Rd	22	3.1	22	3.3	22	3.3	22
Brace Rd	10	14.6	10	14.8	10	13.5	9
Taylor Rd	12	24.2	11	25.0	11	25.4	11
Total	8	491.4	9	435.7	8	485.7	10

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	89.0	158.7	0.6	14	10	152.6
Brace Rd	7	96.3	111.5	0.1	4	4	109.4
Dwy S of Brace Rd	21	54.4	61.6	0.1	3	3	57.6
	24	107.2	116.5	0.1	2	2	111.5
Granite Dr	8	158.6	172.7	0.1	3	3	166.8
I-80 WB Ramps	9	60.6	72.1	0.1	5	4	64.0
I-80 WB On Ramp	99	3.5	14.0	0.1	22	22	3.7
I-80 EB On Ramp	101	1.0	13.8	0.1	31	31	1.0
I-80 EB Ramps	10	6.8	21.4	0.1	20	18	8.3
	11	14.7	23.5	0.1	12	10	19.2
Bass Pro Dr/Domingue	12	53.5	63.0	0.1	5	4	57.8
	107	2.8	9.5	0.1	19	19	2.8
	80	1.3	17.8	0.1	28	28	1.2
Stadium Dwy	13	5.9	23.8	0.2	23	23	6.2
Total		655.5	879.9	1.9	8	7	762.0

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	18	53.4	17	60.3	13	95.4	14
Brace Rd	4	98.6	4	89.1	4	89.2	4
Dwy S of Brace Rd	4	51.7	3	58.2	4	49.5	3
	3	103.4	2	113.2	3	100.5	2
Granite Dr	3	153.4	3	161.4	3	152.3	3
I-80 WB Ramps	5	56.9	5	58.9	5	61.4	5
I-80 WB On Ramp	21	3.7	22	3.4	22	3.2	22
I-80 EB On Ramp	31	1.0	31	1.0	30	1.0	31
I-80 EB Ramps	20	6.5	21	5.8	20	6.7	20
	12	15.7	13	12.9	13	12.6	13
Bass Pro Dr/Domingue	5	49.7	5	52.3	5	50.8	5
	20	2.8	19	2.8	19	2.9	20
	28	1.2	28	1.2	28	1.3	28
Stadium Dwy	24	5.3	24	5.6	23	6.7	24
Total	8	603.3	8	626.2	8	633.4	8

Project Driveway Option B & C

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	562.3	539.2	530.3	621.9	556.3	562.0
Denied Del/Veh (s)	177.7	171.0	166.8	194.5	173.6	176.8
Total Delay (hr)	502.0	462.0	497.9	556.7	526.7	509.1
Total Del/Veh (s)	168.9	154.7	163.5	186.5	174.5	169.6
Stop Del/Veh (s)	134.6	121.7	129.1	150.2	138.1	134.7
Stop/Veh	2.28	2.21	2.25	2.37	2.38	2.30
Travel Dist (mi)	6770.5	6796.6	6912.4	6815.0	6936.2	6846.1
Travel Time (hr)	1258.5	1196.5	1227.1	1374.1	1281.7	1267.6
Avg Speed (mph)	10	10	10	9	10	10
Vehicles Entered	10212	10235	10406	10232	10350	10287
Vehicles Exited	9816	9930	10098	9780	10082	9941
Hourly Exit Rate	9816	9930	10098	9780	10082	9941
Input Volume	64281	64281	64281	64281	64281	64281
% of Volume	15	15	16	15	16	15
Denied Entry Before	35	43	71	32	31	42
Denied Entry After	1177	1118	1038	1281	1184	1155

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	6.8	18.6	0.2	33	27	10.1
	80	42.5	53.8	0.2	10	7	69.7
	107	54.5	62.3	0.1	6	5	69.5
Bass Pro Dr/Domingue	12	22.3	28.0	0.1	10	10	24.1
Schriber Way	11	5.6	13.1	0.1	23	23	5.7
I-80 EB Ramps	10	21.6	27.7	0.1	10	10	21.1
I-80 EB On Ramp	101	3.3	12.5	0.1	34	34	3.2
I-80 WB On Ramp	99	1.0	11.3	0.1	38	38	0.8
I-80 WB Ramps	9	20.1	32.4	0.1	12	12	19.8
Granite Dr	8	21.1	29.2	0.1	11	12	19.6
Project Driveway	24	8.6	20.3	0.1	24	23	9.0
Dwy S of Brace Rd	21	2.8	9.3	0.1	29	30	2.4
Brace Rd	7	12.6	17.7	0.1	12	16	7.8
Taylor Rd	6	22.3	41.1	0.1	14	14	22.5
Total		245.2	377.1	1.5	15	13	285.3

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	28	9.5	35	5.4	36	4.8	38
	11	38.3	13	32.5	11	40.7	13
	8	42.5	6	55.8	7	50.2	6
Bass Pro Dr/Domingue	11	20.1	10	22.8	10	22.1	10
Schriber Way	23	5.4	23	5.8	22	5.9	24
I-80 EB Ramps	12	16.8	10	21.5	9	25.8	10
I-80 EB On Ramp	35	2.8	34	3.4	32	3.7	34
I-80 WB On Ramp	39	0.7	38	0.8	35	1.8	38
I-80 WB Ramps	13	16.8	11	21.3	10	25.0	13
Granite Dr	12	19.2	11	20.8	11	23.2	11
Project Driveway	24	8.2	23	9.2	25	7.9	24
Dwy S of Brace Rd	32	1.9	29	2.8	24	4.4	29
Brace Rd	17	6.9	10	14.9	8	21.2	12
Taylor Rd	14	20.7	12	26.1	14	21.3	14
Total	16	209.8	15	243.1	14	257.9	15

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	97.3	136.6	0.5	13	18	63.4
Brace Rd	7	29.1	40.5	0.1	11	13	24.3
Dwy S of Brace Rd	21	20.2	25.6	0.1	8	9	19.1
	24	41.6	50.2	0.1	6	5	42.3
Granite Dr	8	93.1	105.3	0.1	5	4	97.7
I-80 WB Ramps	9	34.2	43.6	0.1	8	8	33.0
I-80 WB On Ramp	99	3.7	10.1	0.1	30	30	3.6
I-80 EB On Ramp	101	3.5	13.2	0.1	32	33	3.0
I-80 EB Ramps	10	60.3	612.4	0.1	6	6	60.6
	11	25.6	34.7	0.1	9	8	28.3
Bass Pro Dr/Domingue	12	33.2	40.9	0.1	7	7	35.5
	107	5.9	12.5	0.1	23	23	6.0
	80	2.3	10.2	0.1	38	38	2.3
Stadium Dwy	13	4.9	15.4	0.2	36	36	4.9
Total		454.8	1151.3	1.8	11	11	424.1

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	16	74.8	14	89.5	10	139.9	12
Brace Rd	17	14.4	11	28.6	8	43.3	10
Dwy S of Brace Rd	10	16.4	9	18.2	7	22.7	7
	5	44.2	6	36.3	6	38.6	5
Granite Dr	4	96.1	5	88.7	5	89.5	5
I-80 WB Ramps	8	32.5	8	34.1	7	38.3	8
I-80 WB On Ramp	30	3.8	31	3.5	30	3.6	30
I-80 EB On Ramp	31	3.9	32	3.5	33	3.3	32
I-80 EB Ramps	6	61.5	6	60.4	6	61.2	6
	8	27.4	9	23.1	9	25.5	9
Bass Pro Dr/Domingue	7	33.6	8	30.2	8	32.9	7
	23	5.8	23	5.9	23	5.9	23
	38	2.2	37	2.5	38	2.3	38
Stadium Dwy	35	5.2	38	4.2	33	6.3	38
Total	12	421.7	11	428.7	10	513.2	10

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	1140.5	1196.4	1227.7	1238.9	872.8	1135.3
Denied Del/Veh (s)	262.8	272.9	283.6	285.6	199.8	261.0
Total Delay (hr)	796.3	814.2	809.3	825.5	795.8	808.2
Total Del/Veh (s)	206.9	208.7	208.9	215.3	198.4	207.7
Stop Del/Veh (s)	162.8	163.9	164.6	171.4	154.2	163.4
Stop/Veh	2.68	2.69	2.72	2.67	2.68	2.69
Travel Dist (mi)	8009.6	8048.2	8066.7	7895.2	8321.6	8068.3
Travel Time (hr)	2169.7	2245.3	2272.8	2294.6	1912.6	2179.0
Avg Speed (mph)	8	8	8	7	8	8
Vehicles Entered	13030	13235	13071	12989	13663	13196
Vehicles Exited	12789	12969	12903	12649	13381	12936
Hourly Exit Rate	12789	12969	12903	12649	13381	12936
Input Volume	84529	84529	84529	84529	84529	84529
% of Volume	15	15	15	15	16	15
Denied Entry Before	119	70	143	43	23	79
Denied Entry After	2591	2546	2512	2627	2066	2465

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	76.7	360.7	0.2	7	7	71.9
	80	57.1	68.3	0.2	8	8	56.5
	107	49.6	57.5	0.1	7	7	48.6
Bass Pro Dr/Domingue	12	40.8	46.1	0.1	6	6	40.7
Schriber Way	11	26.9	34.6	0.1	9	9	26.6
I-80 EB Ramps	10	39.6	46.4	0.1	6	6	42.2
I-80 EB On Ramp	101	4.1	11.9	0.1	35	36	3.9
I-80 WB On Ramp	99	1.4	11.6	0.1	36	36	1.5
I-80 WB Ramps	9	36.4	590.2	0.1	7	7	38.6
Granite Dr	8	47.3	56.0	0.1	6	6	49.7
Project Driveway	24	23.8	35.8	0.1	13	13	25.0
Dwy S of Brace Rd	21	12.3	19.1	0.1	14	16	10.2
Brace Rd	7	23.1	28.3	0.1	7	8	21.4
Taylor Rd	6	33.0	43.9	0.1	10	10	34.9
Total		472.0	1410.4	1.5	9	9	471.7

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	7	76.7	6	81.2	6	79.9	7
	8	56.0	8	62.4	8	56.3	8
	7	48.2	7	52.3	7	50.3	7
Bass Pro Dr/Domingue	6	41.5	6	41.3	6	40.9	6
Schriber Way	10	23.5	7	33.8	9	24.6	9
I-80 EB Ramps	7	31.1	5	46.1	7	35.1	5
I-80 EB On Ramp	36	4.0	34	4.7	36	4.0	36
I-80 WB On Ramp	37	1.3	35	1.8	37	1.3	37
I-80 WB Ramps	7	38.5	7	35.7	7	39.4	9
Granite Dr	6	48.3	6	46.1	6	50.9	7
Project Driveway	14	23.4	13	25.4	15	20.0	13
Dwy S of Brace Rd	16	9.7	13	13.6	17	9.6	11
Brace Rd	8	21.1	7	23.4	7	22.9	7
Taylor Rd	11	30.7	10	35.4	10	32.7	11
Total	9	453.9	9	503.2	9	467.8	9

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	65.6	100.2	0.4	16	16	67.0
Brace Rd	7	31.8	43.4	0.1	10	11	30.0
Dwy S of Brace Rd	21	18.0	23.3	0.1	9	8	22.3
	24	56.9	67.1	0.1	4	4	64.5
Granite Dr	8	121.1	132.1	0.1	4	3	126.4
I-80 WB Ramps	9	61.0	70.6	0.1	5	5	63.8
I-80 WB On Ramp	99	4.0	10.2	0.1	30	30	4.1
I-80 EB On Ramp	101	2.0	11.7	0.1	36	38	1.5
I-80 EB Ramps	10	62.1	261.8	0.1	6	6	59.7
	11	42.2	49.4	0.1	6	6	40.1
Bass Pro Dr/Domingue	12	49.8	57.3	0.1	5	5	48.7
	107	6.0	12.2	0.1	22	23	5.7
	80	2.0	10.2	0.1	39	39	2.0
Stadium Dwy	13	11.0	21.9	0.2	25	26	10.7
Total		533.5	871.5	1.7	9	9	546.5

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	21	41.3	15	69.6	12	98.7	19
Brace Rd	10	34.4	11	29.4	9	38.3	12
Dwy S of Brace Rd	7	24.0	11	13.2	7	26.4	22
	4	66.6	5	52.8	4	67.8	7
Granite Dr	3	126.9	4	115.3	3	125.5	4
I-80 WB Ramps	5	59.1	4	65.5	5	62.8	5
I-80 WB On Ramp	30	3.9	31	3.7	30	4.1	29
I-80 EB On Ramp	38	1.5	36	2.1	38	1.5	33
I-80 EB Ramps	6	56.9	6	65.0	6	60.8	5
	6	42.3	5	44.8	6	43.2	6
Bass Pro Dr/Domingue	5	49.2	5	48.9	5	49.5	5
	22	6.2	22	6.0	23	5.8	22
	39	2.0	39	2.1	40	1.9	39
Stadium Dwy	24	11.9	25	11.3	27	9.6	25
Total	9	526.2	9	529.8	9	595.8	10

Total Network Performance By Run

Run Number	1	2	3	4	5	Avg
Denied Delay (hr)	406.7	648.9	431.1	450.0	416.5	470.6
Denied Del/Veh (s)	105.6	168.4	112.4	116.7	110.3	122.8
Total Delay (hr)	572.7	625.7	584.7	625.2	550.6	591.8
Total Del/Veh (s)	153.0	173.8	156.2	167.8	149.4	160.0
Stop Del/Veh (s)	124.7	146.5	127.2	139.4	122.8	132.0
Stop/Veh	2.21	2.29	2.25	2.32	2.22	2.26
Travel Dist (mi)	7314.6	7067.2	7341.9	7275.9	7201.0	7240.1
Travel Time (hr)	1202.7	1489.9	1239.6	1297.1	1186.2	1283.1
Avg Speed (mph)	9	8	9	9	9	9
Vehicles Entered	12864	12421	12884	12858	12707	12743
Vehicles Exited	12551	12019	12551	12360	12329	12361
Hourly Exit Rate	12551	12019	12551	12360	12329	12361
Input Volume	67073	67073	67073	67073	67073	67073
% of Volume	19	18	19	18	18	18
Denied Entry Before	63	99	72	67	53	69
Denied Entry After	1000	1448	923	1026	885	1057

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Stadium Dwy	13	11.2	22.9	0.2	26	28	9.4
	80	33.0	44.3	0.2	13	10	45.5
	107	35.2	42.1	0.1	8	6	46.7
Bass Pro Dr/Domingue	12	28.3	64.0	0.1	10	9	30.8
Schriber Way	11	10.3	18.0	0.1	17	16	11.0
I-80 EB Ramps	10	39.4	45.9	0.1	6	6	38.2
I-80 EB On Ramp	101	4.1	12.5	0.1	34	35	3.8
I-80 WB On Ramp	99	1.7	12.0	0.1	35	33	2.4
I-80 WB Ramps	9	28.9	402.5	0.1	9	9	29.8
Granite Dr	8	37.7	45.5	0.1	7	7	36.1
Project Driveway	24	31.4	43.0	0.1	11	11	29.5
Dwy S of Brace Rd	21	5.1	12.2	0.1	23	24	4.8
Brace Rd	7	14.7	19.9	0.1	11	11	14.5
Taylor Rd	6	26.7	37.7	0.1	12	12	27.1
Total		307.7	822.5	1.5	12	12	329.7

Arterial Level of Service: NB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Stadium Dwy	34	6.1	22	15.4	20	18.9	35
	24	12.1	9	52.1	9	49.1	34
	12	21.3	7	46.0	7	43.7	14
Bass Pro Dr/Domingue	9	28.8	9	28.6	10	27.0	10
Schriber Way	15	11.8	17	10.2	18	9.3	18
I-80 EB Ramps	6	41.1	6	43.3	7	34.0	6
I-80 EB On Ramp	33	4.2	33	4.4	35	3.8	34
I-80 WB On Ramp	36	1.4	36	1.6	36	1.4	35
I-80 WB Ramps	8	33.3	8	31.0	10	26.4	10
Granite Dr	7	39.1	7	41.5	7	38.4	8
Project Driveway	12	27.7	10	35.0	10	34.6	11
Dwy S of Brace Rd	24	4.9	23	5.2	22	5.7	24
Brace Rd	11	13.5	11	14.4	10	16.8	11
Taylor Rd	11	28.7	12	25.8	13	25.3	12
Total	14	273.9	11	354.5	12	334.3	15

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Taylor Rd	6	35.2	82.8	0.6	27	27	33.8
Brace Rd	7	37.3	48.7	0.1	9	12	27.6
Dwy S of Brace Rd	21	36.8	42.3	0.1	5	5	37.2
	24	78.4	129.0	0.1	3	3	80.6
Granite Dr	8	128.1	138.6	0.1	3	3	123.6
I-80 WB Ramps	9	68.2	77.9	0.1	4	4	67.1
I-80 WB On Ramp	99	4.3	10.6	0.1	29	29	4.2
I-80 EB On Ramp	101	3.7	13.4	0.1	32	40	0.9
I-80 EB Ramps	10	77.9	215.8	0.1	5	7	48.7
	11	59.2	180.3	0.1	4	5	53.8
Bass Pro Dr/Domingue	12	67.2	74.4	0.1	4	5	55.9
	107	6.0	13.4	0.1	25	25	5.9
	80	0.9	8.0	0.1	43	43	0.9
Stadium Dwy	13	5.3	16.1	0.2	34	34	5.6
Total		608.5	1051.4	1.9	9	10	546.0

Arterial Level of Service: SB Sierra College Blvd

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Taylor Rd	24	43.4	28	31.0	26	36.3	28
Brace Rd	6	66.4	14	20.9	8	47.8	14
Dwy S of Brace Rd	4	47.9	6	29.0	4	44.0	7
	3	90.3	4	68.6	3	84.4	4
Granite Dr	3	141.1	4	116.0	3	136.6	3
I-80 WB Ramps	4	68.4	4	66.5	4	70.4	4
I-80 WB On Ramp	28	4.4	29	4.2	29	4.3	29
I-80 EB On Ramp	31	4.1	29	4.9	32	3.4	29
I-80 EB Ramps	4	98.0	5	80.0	5	72.4	4
	4	64.9	4	61.9	5	53.2	4
Bass Pro Dr/Domingue	5	58.7	3	79.5	4	62.7	4
	25	5.8	25	6.1	25	6.0	25
	44	0.8	42	1.2	43	0.9	43
Stadium Dwy	35	4.9	34	5.4	35	5.2	34
Total	8	699.3	9	575.4	9	627.7	9

Appendix E: Freeway Mainline Worksheets (HCS)

Existing Conditions

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3110	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	904	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1236	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1236	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	19.0	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4062	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1195	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1633	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1633	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.2	mi/h
Number of lanes, N	3	
Density, D	25.4	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3118	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	906	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1239	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1239	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	19.1	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3702	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1089	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1488	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1488	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.9	mi/h
Number of lanes, N	3	
Density, D	22.9	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4398	veh/h
Peak-hour factor, PHF	0.91	
Peak 15-min volume, v15	1208	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1651	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1651	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.1	mi/h
Number of lanes, N	3	
Density, D	25.8	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	PM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3803	veh/h
Peak-hour factor, PHF	0.89	
Peak 15-min volume, v15	1068	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1460	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1460	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.9	mi/h
Number of lanes, N	3	
Density, D	22.5	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4042	veh/h
Peak-hour factor, PHF	0.91	
Peak 15-min volume, v15	1110	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1518	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1518	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.8	mi/h
Number of lanes, N	3	
Density, D	23.4	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	PM
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3716	veh/h
Peak-hour factor, PHF	0.89	
Peak 15-min volume, v15	1044	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1427	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1427	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	22.0	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3980	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1070	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1462	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1462	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.9	mi/h
Number of lanes, N	3	
Density, D	22.5	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	MD
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3892	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1024	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1400	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1400	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	21.5	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3963	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1065	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1456	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1456	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	22.4	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	8/31/2017
Analysis Time Period:	MD
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3812	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1003	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1371	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1371	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	21.1	pc/mi/ln
Level of service, LOS	C	

Existing Plus Project Conditions

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/2017
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3132	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	910	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1244	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1244	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	19.1	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/2017
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4085	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1201	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1642	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1642	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.2	mi/h
Number of lanes, N	3	
Density, D	25.6	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3125	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	908	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1242	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1242	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	19.1	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3709	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1091	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1491	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1491	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.9	mi/h
Number of lanes, N	3	
Density, D	23.0	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4469	veh/h
Peak-hour factor, PHF	0.91	
Peak 15-min volume, v15	1228	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1678	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1678	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.9	mi/h
Number of lanes, N	3	
Density, D	26.3	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	
Analysis Time Period:	PM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3870	veh/h
Peak-hour factor, PHF	0.89	
Peak 15-min volume, v15	1087	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1486	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1486	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.9	mi/h
Number of lanes, N	3	
Density, D	22.9	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4061	veh/h
Peak-hour factor, PHF	0.91	
Peak 15-min volume, v15	1116	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1525	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1525	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.8	mi/h
Number of lanes, N	3	
Density, D	23.5	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3736	veh/h
Peak-hour factor, PHF	0.89	
Peak 15-min volume, v15	1049	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1434	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1434	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	22.1	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4110	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1105	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1510	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1510	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.8	mi/h
Number of lanes, N	3	
Density, D	23.3	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4029	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1060	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1449	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1449	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	22.3	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4002	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1076	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1470	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1470	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.9	mi/h
Number of lanes, N	3	
Density, D	22.6	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Existing Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3850	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1013	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1385	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1385	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	21.3	pc/mi/ln
Level of service, LOS	C	

Cumulative Conditions – Short Term Baseline

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/4/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3288	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	956	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1306	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1306	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	20.1	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/4/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4134	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1216	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1662	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1662	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.0	mi/h
Number of lanes, N	3	
Density, D	26.0-	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/4/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3216	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	935	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1278	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1278	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	19.7	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/4/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3923	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1154	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1577	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1577	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.6	mi/h
Number of lanes, N	3	
Density, D	24.4	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/4/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4564	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	1327	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1813	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1813	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.6	mi/h
Number of lanes, N	3	
Density, D	29.0	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/4/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4068	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1196	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1635	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1635	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.2	mi/h
Number of lanes, N	3	
Density, D	25.5	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/4/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4419	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	1285	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1756	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1756	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.2	mi/h
Number of lanes, N	3	
Density, D	27.8	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/4/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4016	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1181	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1614	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1614	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.4	mi/h
Number of lanes, N	3	
Density, D	25.1	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/4/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4187	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1126	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1538	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1538	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.7	mi/h
Number of lanes, N	3	
Density, D	23.8	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
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Date Performed:	12/4/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4243	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1117	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1526	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1526	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.8	mi/h
Number of lanes, N	3	
Density, D	23.6	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
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Operational Analysis

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Date Performed:	12/4/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4392	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1181	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1614	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1614	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.4	mi/h
Number of lanes, N	3	
Density, D	25.1	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
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Date Performed:	12/4/18
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Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4198	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1105	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1510	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1510	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.8	mi/h
Number of lanes, N	3	
Density, D	23.3	pc/mi/ln
Level of service, LOS	C	

Cumulative Conditions – Short Term Plus Project

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3310	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	962	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1315	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1315	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	20.2	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4157	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1223	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1671	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1671	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.0	mi/h
Number of lanes, N	3	
Density, D	26.1	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
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Operational Analysis

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Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3223	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	937	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1280	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1280	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	3	
Density, D	19.7	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	3930	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1156	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1580	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1580	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.5	mi/h
Number of lanes, N	3	
Density, D	24.5	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
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Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4635	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	1347	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1841	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1841	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.2	mi/h
Number of lanes, N	3	
Density, D	29.6	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

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Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4135	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1216	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1662	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1662	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.0	mi/h
Number of lanes, N	3	
Density, D	26.0-	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
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Operational Analysis

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Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4438	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	1290	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1763	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1763	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.1	mi/h
Number of lanes, N	3	
Density, D	27.9	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
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Operational Analysis

Analyst:	HXA
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Date Performed:	12/3/18
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Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
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Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4036	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1187	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1622	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1622	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.3	mi/h
Number of lanes, N	3	
Density, D	25.2	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
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Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4317	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1160	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1586	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1586	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.5	mi/h
Number of lanes, N	3	
Density, D	24.6	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
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Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4380	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1153	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1575	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1575	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.6	mi/h
Number of lanes, N	3	
Density, D	24.4	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4431	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1191	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1628	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1628	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.3	mi/h
Number of lanes, N	3	
Density, D	25.3	pc/mi/ln
Level of service, LOS	C	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Short Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4236	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1115	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1523	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1523	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.8	mi/h
Number of lanes, N	3	
Density, D	23.5	pc/mi/ln
Level of service, LOS	C	

Cumulative Conditions – Long Term Baseline

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4780	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	1390	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1899	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1899	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.5	mi/h
Number of lanes, N	3	
Density, D	30.9	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/818
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4700	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1382	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1889	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1889	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.6	mi/h
Number of lanes, N	3	
Density, D	30.7	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5000	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	1453	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1986	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1986	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	60.1	mi/h
Number of lanes, N	3	
Density, D	33.0	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4290	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1262	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1724	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1724	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.5	mi/h
Number of lanes, N	3	
Density, D	27.1	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5060	veh/h
Peak-hour factor, PHF	0.91	
Peak 15-min volume, v15	1390	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1900	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1900	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.5	mi/h
Number of lanes, N	3	
Density, D	30.9	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5440	veh/h
Peak-hour factor, PHF	0.89	
Peak 15-min volume, v15	1528	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2088	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2088	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	58.3	mi/h
Number of lanes, N	3	
Density, D	35.8	pc/mi/ln
Level of service, LOS	E	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4440	veh/h
Peak-hour factor, PHF	0.91	
Peak 15-min volume, v15	1220	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1667	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1667	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.0	mi/h
Number of lanes, N	3	
Density, D	26.1	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5550	veh/h
Peak-hour factor, PHF	0.89	
Peak 15-min volume, v15	1559	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2131	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2131	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	57.4	mi/h
Number of lanes, N	3	
Density, D	37.1	pc/mi/ln
Level of service, LOS	E	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5340	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1435	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1962	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1962	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	60.5	mi/h
Number of lanes, N	3	
Density, D	32.4	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5030	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1324	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1809	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1809	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.6	mi/h
Number of lanes, N	3	
Density, D	28.9	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5350	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1438	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1966	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1966	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	60.5	mi/h
Number of lanes, N	3	
Density, D	32.5	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5050	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1329	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1816	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1816	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.5	mi/h
Number of lanes, N	3	
Density, D	29.0	pc/mi/ln
Level of service, LOS	D	

Cumulative Conditions – Long Term Plus Project

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4802	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	1396	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1908	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1908	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.3	mi/h
Number of lanes, N	3	
Density, D	31.1	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4723	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1389	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1898	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1898	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.5	mi/h
Number of lanes, N	3	
Density, D	30.9	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5007	veh/h
Peak-hour factor, PHF	0.86	
Peak 15-min volume, v15	1456	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1989	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1989	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	60.1	mi/h
Number of lanes, N	3	
Density, D	33.1	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	AM
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4297	veh/h
Peak-hour factor, PHF	0.85	
Peak 15-min volume, v15	1264	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1727	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1727	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.5	mi/h
Number of lanes, N	3	
Density, D	27.2	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5131	veh/h
Peak-hour factor, PHF	0.91	
Peak 15-min volume, v15	1410	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1926	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1926	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.1	mi/h
Number of lanes, N	3	
Density, D	31.5	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5507	veh/h
Peak-hour factor, PHF	0.89	
Peak 15-min volume, v15	1547	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2114	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2114	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	57.8	mi/h
Number of lanes, N	3	
Density, D	36.6	pc/mi/ln
Level of service, LOS	E	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	4459	veh/h
Peak-hour factor, PHF	0.91	
Peak 15-min volume, v15	1225	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1674	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1674	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.9	mi/h
Number of lanes, N	3	
Density, D	26.2	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	PM
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5570	veh/h
Peak-hour factor, PHF	0.89	
Peak 15-min volume, v15	1565	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2138	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2138	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	57.3	mi/h
Number of lanes, N	3	
Density, D	37.3	pc/mi/ln
Level of service, LOS	E	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5470	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1470	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2010	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2010	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.7	mi/h
Number of lanes, N	3	
Density, D	33.7	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 WB
From/To:	East of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5167	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1360	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1858	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1858	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.0	mi/h
Number of lanes, N	3	
Density, D	30.0	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 EB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5389	veh/h
Peak-hour factor, PHF	0.93	
Peak 15-min volume, v15	1449	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1980	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1980	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	60.2	mi/h
Number of lanes, N	3	
Density, D	32.9	pc/mi/ln
Level of service, LOS	D	

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	HXA
Agency or Company:	KAI
Date Performed:	12/3/18
Analysis Time Period:	MD
Freeway/Direction:	I-80 WB
From/To:	West of Sierra College Blvd.
Jurisdiction:	Caltrans
Analysis Year:	Long Term Plus Project
Description:	20345 Loomis Costco

Flow Inputs and Adjustments

Volume, V	5088	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1339	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1830	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1830	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.4	mi/h
Number of lanes, N	3	
Density, D	29.3	pc/mi/ln
Level of service, LOS	D	

Appendix F: Costco Trip Data

COSTCO TRIP GENERATION DATABASE

Trip generation studies were conducted at Costco Wholesale sites located across the western region of the United States using industry standard engineering practices consistent with guidance within the Institute of Transportation Engineers (ITE) standard reference, *Trip Generation Handbook, 9th Edition Volume 1*. These cordon surveys were conducted between 2001 and 2010, and include 22 surveys of Costco Warehouses with fuel centers in California, Oregon, Washington, Montana, Utah, and Colorado.

The Costco Wholesale buildings surveyed range in size between 120,000 square feet and 162,115 square feet, with an average size of 143,782 square feet and had Costco Gasoline fuel centers. As a result, the Costco Wholesale trip generation rates inherently account for Costco Gasoline fuel center trips within the overall rate. Table 1 summarizes the average trip rates recorded.

Table 1: Average Trip Characteristics for a Costco Warehouse with Fuel Center

Land Use	Weekday Daily Trip Rate (per KSF)	Weekday PM Peak Hour of Adjacent Street Traffic Trip Rate (per KSF)			Weekend Midday Peak Hour (per KSF)		
		Total	In	Out	Total	In	Out
Costco Warehouse With Fuel Center	79.27	7.17	48.5%	51.5%	9.79	51%	49%
Primary Trips	No Data		35.1%			50%	
Pass-by Trips	No Data		33.3%			29%	
Diverted Trips	No Data		31.5%			21%	

Source: Kittelson & Associates, Inc. 2018

COMPARISON TO NATIONAL DATA

Trip data for member-based retail establishments is available through the *Trip Generation Manual* published by ITE. Both the 9th Edition (published in 2012) and the 10th Edition (published in 2017) of the document include Land Use 857, Discount Club (the daily, weekday PM peak hour, and Saturday peak hour data by building size is identical in both editions). Discount Club is defined in the *Trip Generation Manual* as follows "A discount club is a discount store or warehouse where shoppers pay a membership fee in order to take advantage of discounted prices on a wide variety of items such as food, clothing, tires and appliance; many items are sold in large quantities or bulk. Some sites may include on-site fueling pumps." The *Trip Generation Manual* Discount Club definition clearly conveys a land use comparable to a Costco Wholesale.

Table 2 compares the trip rates for Discount Club[1] and the Costco Rates while Table 3 compares the trip type data for the two uses. As shown in the two tables, use of the Costco data results in a higher trip rate per square foot and a lower pass-by percentage compared to use of Discount Club data from the *Trip Generation Manual.* Kittelson & Associates uses the Costco-specific data in lieu of traditional

[1] Discount Club trip type data obtained from Tables E.18 and E.19 in the *Trip Generation Handbook, 3rd Edition* published by ITE in September 2017.

Trip Generation Manual to provide both Costco and the impacted review agencies with data that is representative of potential site development impacts.

Table 2: Trip Rate Comparison

Land Use	Weekday Daily Trip Rate	Weekday PM Peak Hour of Adjacent Street Traffic Trip Rate			Weekend Midday Peak Hour of Generator Trip Rate		
		Total	In	Out	Total	In	Out
Costco	79.27	7.17	48.5%	51.5%	9.79	51%	49%
Discount Club	41.8	4.18	50%	50%	6.37	49%	51%
Difference*	37.47	2.99			3.42		

*Costco trip rate – Discount Club trip rate
Source: Kittelson & Associates, Inc. 2019

Table 3: Trip Type Comparison

Land Use	Weekday PM Peak Hour			Weekend Midday Peak Hour		
	Primary Trips	Pass-by Trips	Diverted Trips	Primary Trips	Pass-by Trips	Diverted Trips
Costco	35%	33%	32%	50%	29%	21%
Discount Club	No data	37%	No data	No data	30%	No data
Difference*		-4%			-1%	

*Costco trip rate – Discount Club trip rate
Source: Kittelson & Associates, Inc. 2019

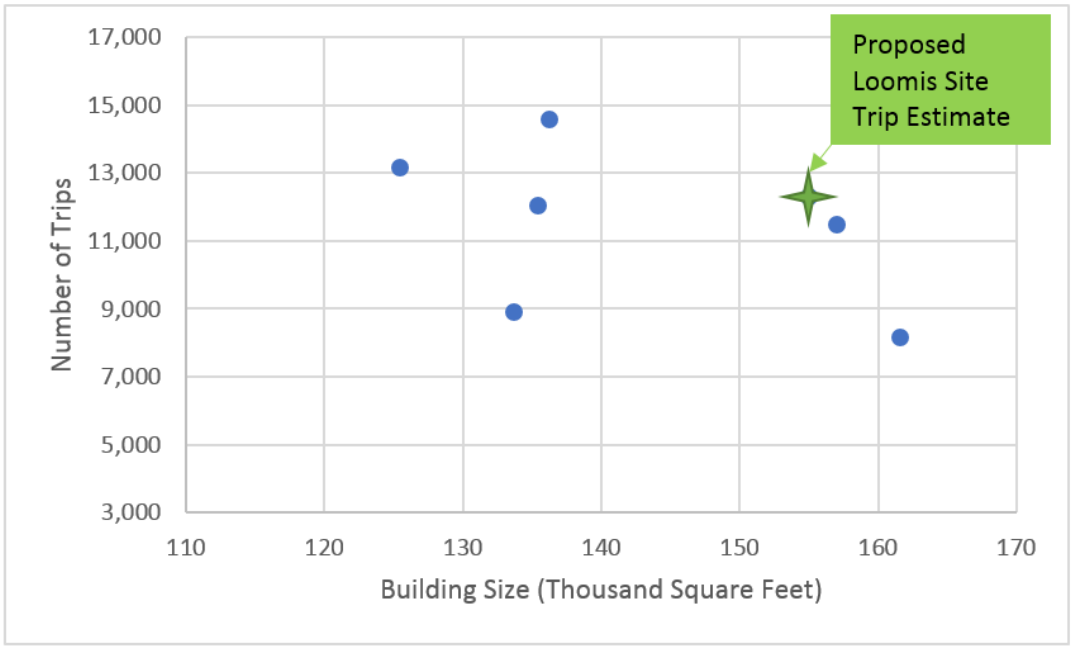
SUPPLEMENTAL COSTCO TRIP DATA

Data supporting the trip rates shown in Table 1 is summarized in further detail below in a graphical format similar to the data presented in *Trip Generation Manual, 9th Edition*.

Daily Trip Data

Daily trip data is available for six sites as shown in Exhibit 1, along with a data point representing the trip estimate for the proposed Loomis site. Following the data plot format used in the *Trip Generation Manual*, Exhibit 1 illustrates that the daily trip estimate for proposed Loomis Costco is supported by the trip rate data, reflecting an average trip rate amongst the sites surveyed.

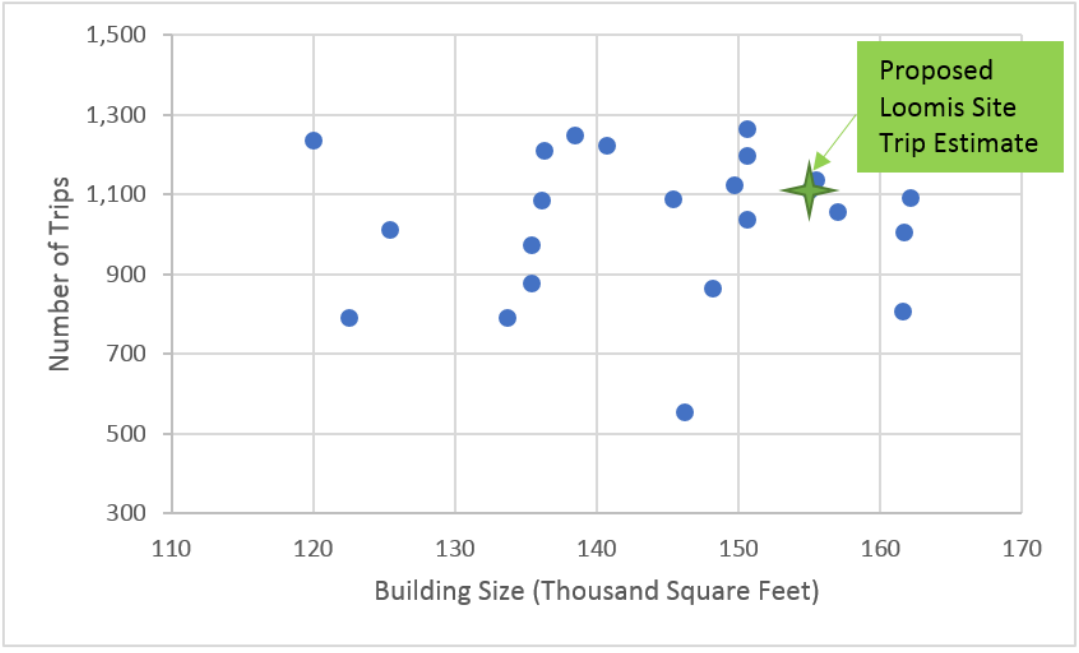
Exhibit 1. Costco Daily Trip Data



Weekday PM Peak Hour Trip Data

Weekday PM peak hour trip data is available for 19 sites (including 3 studies of one site) as shown in Exhibit 2. Exhibit 2 illustrates that the weekday PM peak hour trip estimate for proposed Loomis Costco is supported by the trip data, reflecting an average trip rate amongst the sites surveyed.

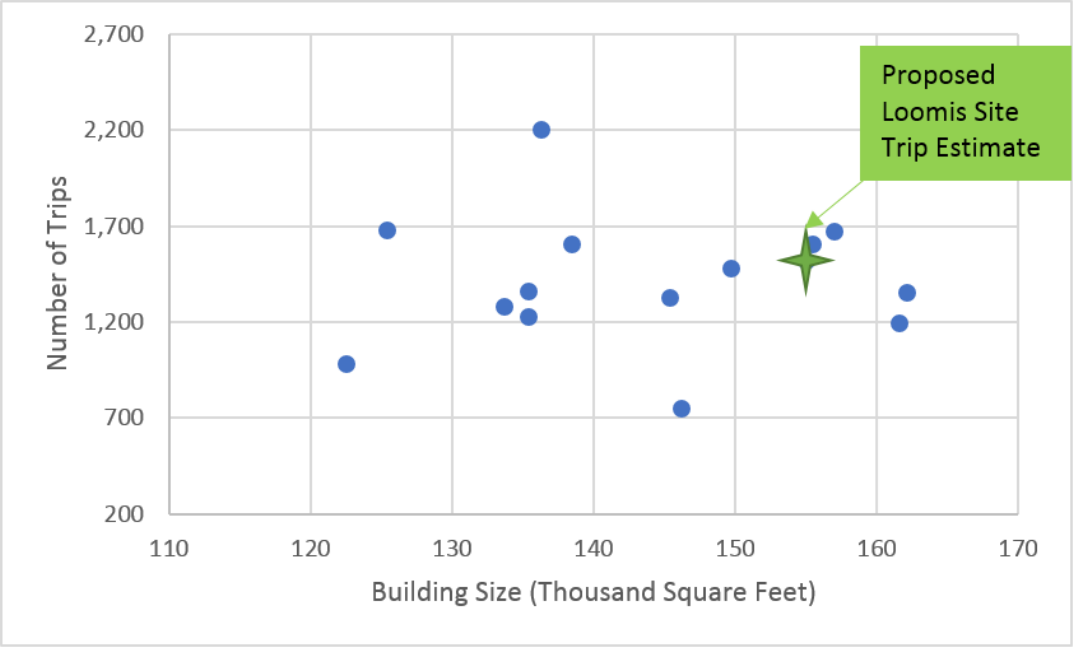
Exhibit 2. Costco PM Peak Hour Trip Data



Saturday Peak Hour Trip Data

Saturday Peak Hour trip data is available for 14 sites as shown in Exhibit 3. Exhibit 3 illustrates that the Saturday midday trip estimate for proposed Loomis Costco is supported by the trip rate data, reflecting an average trip rate amongst the sites surveyed.

Exhibit 3. Costco Saturday Midday Peak Hour Trip Data



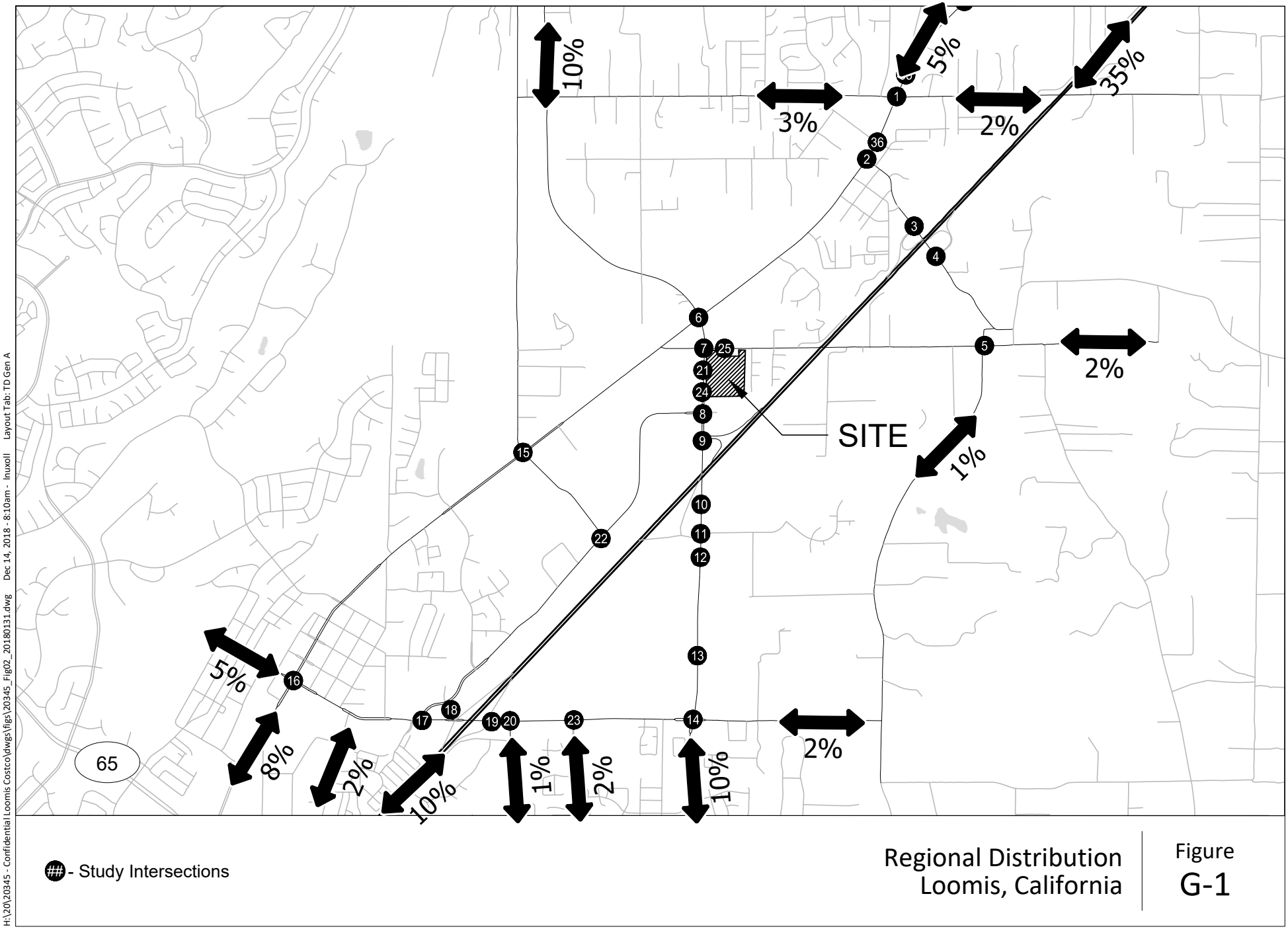
Loomis Costco Site				
Zip Code	City Name	Total Members Anticipated at Site	New Members Anticipated at Site	Average Trip Length (miles)
95602	AUBURN	3653	352	17
95603	AUBURN	5920	668	11
95614	COOL	932	58	20
95631	FORESTHILL	1140	96	32
95635	GREENWOOD	210	12	24
95650	LOOMIS	3277	433	2
95701	ALTA	69	8	43
95703	APPLEGATE	371	40	20
95713	COLFAX	1698	164	30
95714	DUTCH FLAT	0	0	37
95715	EMIGRANT GAP	18	4	54
95717	GOLD RUN	1	0	35
95722	MEADOW VISTA	1215	132	19
95910	ALLEGHANY	5	2	74
95919	BROWNSVILLE	91	4	71
95922	CAMPTONVILLE	151	13	64
95925	CHALLENGE	35	2	77
95935	DOBBINS	52	3	70
95945	GRASS VALLEY	4229	432	34
95946	PENN VALLEY	1916	166	41
95959	NEVADA CITY	3382	328	46
95960	NORTH SAN JUAN	73	2	52
95962	OREGON HOUSE	122	4	65
95972	RACKERBY	0	0	0
95975	ROUGH AND READY	237	17	39
95986	WASHINGTON	7	0	58
95633	GARDEN VALLEY	624	42	31
95664	PILOT HILL	332	26	25
95944	GOODYEARS BAR	1	0	70
95930	CLIPPER MILLS	29	1	80
95918	BROWNS VALLEY	213	10	56
95651	LOTUS	167	16	26
95634	GEORGETOWN	534	49	37
95746	GRANITE BAY	5335	536	6
95658	NEWCASTLE	1337	144	9
95613	COLOMA	0	0	0
95949	GRASS VALLEY	3145	274	26
95941	FORBESTOWN	15	2	76
95977	SMARTSVILLE	107	8	48
95663	PENRYN	551	68	4
95677	ROCKLIN	3701	344	2
95936	DOWNIEVILLE	30	4	88
96125	SIERRA CITY	27	3	95
95981	STRAWBERRY VALLEY	4	1	91
95914	BANGOR	48	3	64
96161	TRUCKEE	1113	127	77
95728	SODA SPRINGS	1	0	63
96126	SIERRAVILLE	0	0	106
95762	EL DORADO HILLS	1012	87	20
95672	RESCUE	82	7	31
95667	PLACERVILLE	476	44	37
95901	MARYSVILLE	67	4	46
95966	OROVILLE	247	21	70
95648	LINCOLN	193	14	13
96146	OLYMPIC VALLEY	5	1	87
95661	ROSEVILLE	17	2	6
95765	ROCKLIN	20	1	2

Roseville Costco Site				
Zip Code	City Name	Total Members Anticipated at Site	New Members Anticipated at Site	Average Trip Length (miles)
95681	SHERIDAN	169	18	19
95747	ROSEVILLE	15062	968	7
95678	ROSEVILLE	8322	716	2
95765	ROCKLIN	8874	615	3
95674	RIO OSO	101	8	22
95648	LINCOLN	12400	897	12
95692	WHEATLAND	470	42	23
95661	ROSEVILLE	5387	549	4
95668	PLEASANT GROVE	87	9	16
95626	ELVERTA	466	40	18
95677	ROCKLIN	2378	221	2
95663	PENRYN	198	24	9
95949	GRASS VALLEY	835	73	31
95658	NEWCASTLE	252	27	13
95659	NICOLAUS	14	1	21
95903	BEALE AFB	24	0	29
95746	GRANITE BAY	753	76	7
95961	OLIVEHURST	30	1	35
95977	SMARTSVILLE	2	0	50
95991	YUBA CITY	12	1	43
95843	ANTELOPE	53	2	10
95621	CITRUS HEIGHTS	58	4	7
95901	MARYSVILLE	5	0	42

Total Members	**104,187**
Total New Members	**9,070**
% New Members	**8.7%**
Total Members North of Loomis	**33,113**
Weighted Average Trip Length - Loomis	**22**
Weighted Average Trip Length - Roseville	**7**

Appendix G: Regional Trip Distribution, Trip Assignment, Percent Project Trips

Regional Trip Distribution

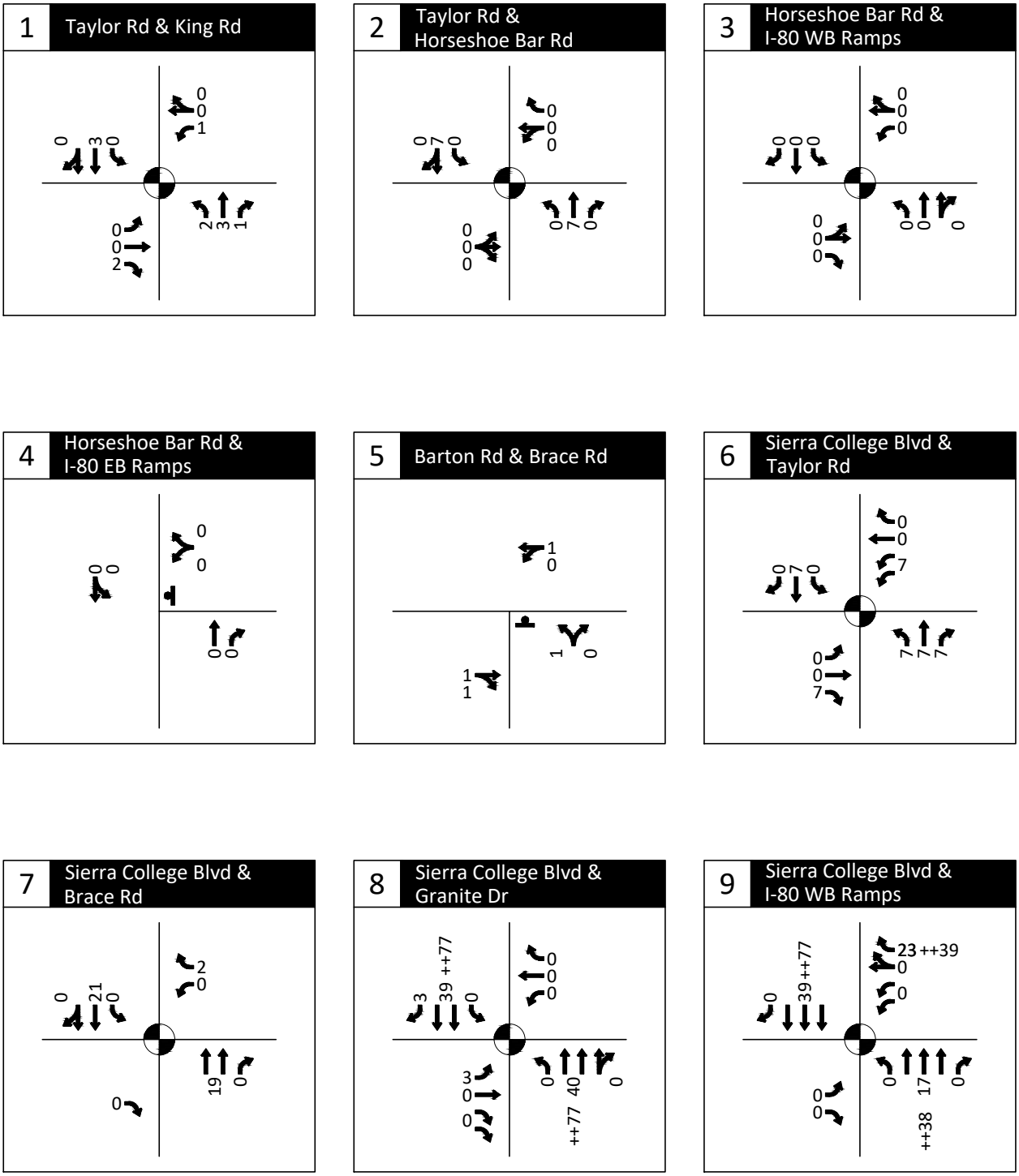


Regional Distribution
Loomis, California

Figure
G-1

KITTELSON & ASSOCIATES

Project Trip Assignment – With Pass-by and Diverting Trips



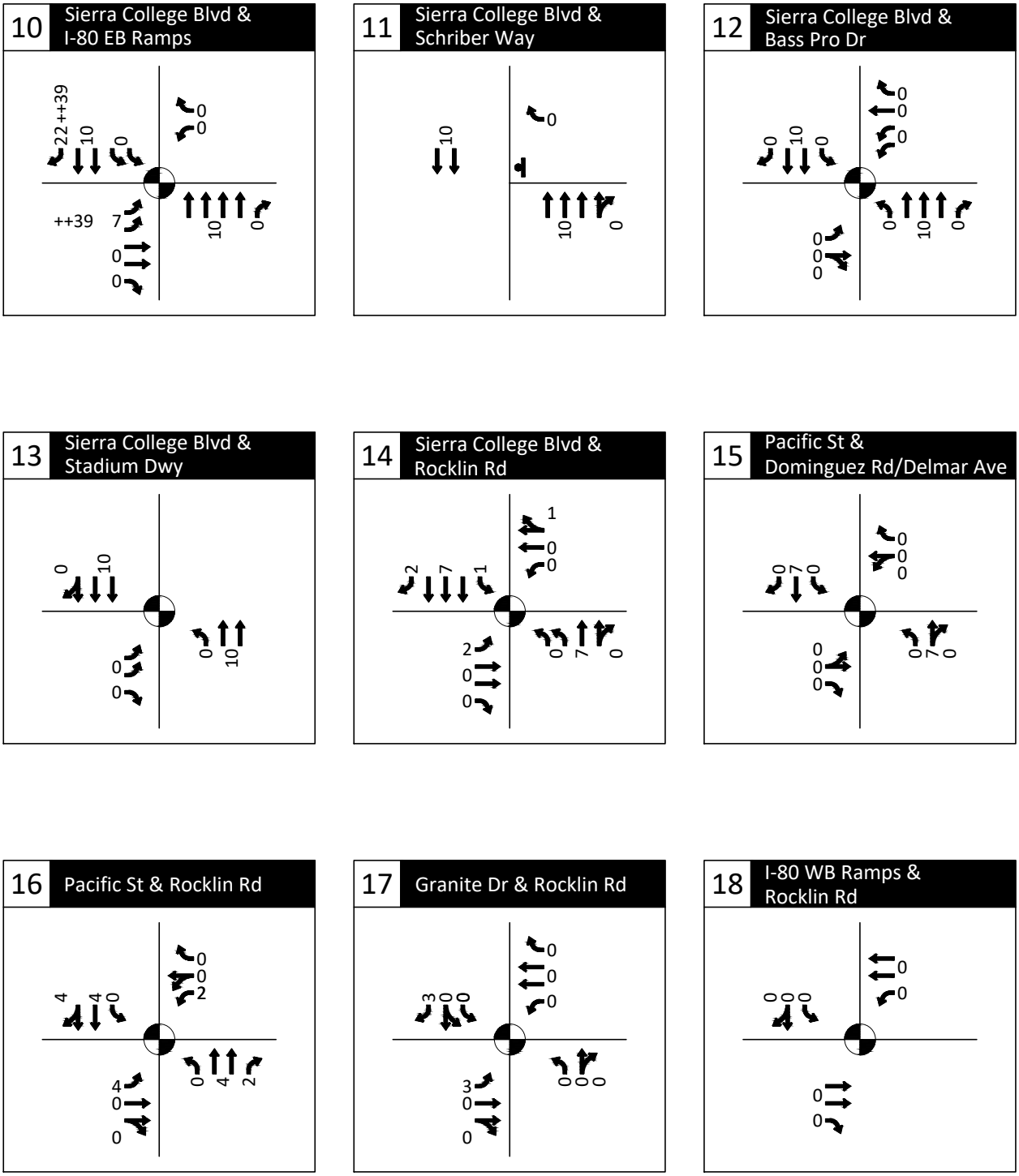
- Weekday AM Traffic Volume
- Stop Sign
- Traffic Signal

+## - Pass by Trips
++## - Diverted Trips
(##) - Apartment Re-Assigned Trips

Project Trip Assignment
Weekday AM Peak Hour
Loomis, California

Figure
G2-A

KITTELSON & ASSOCIATES

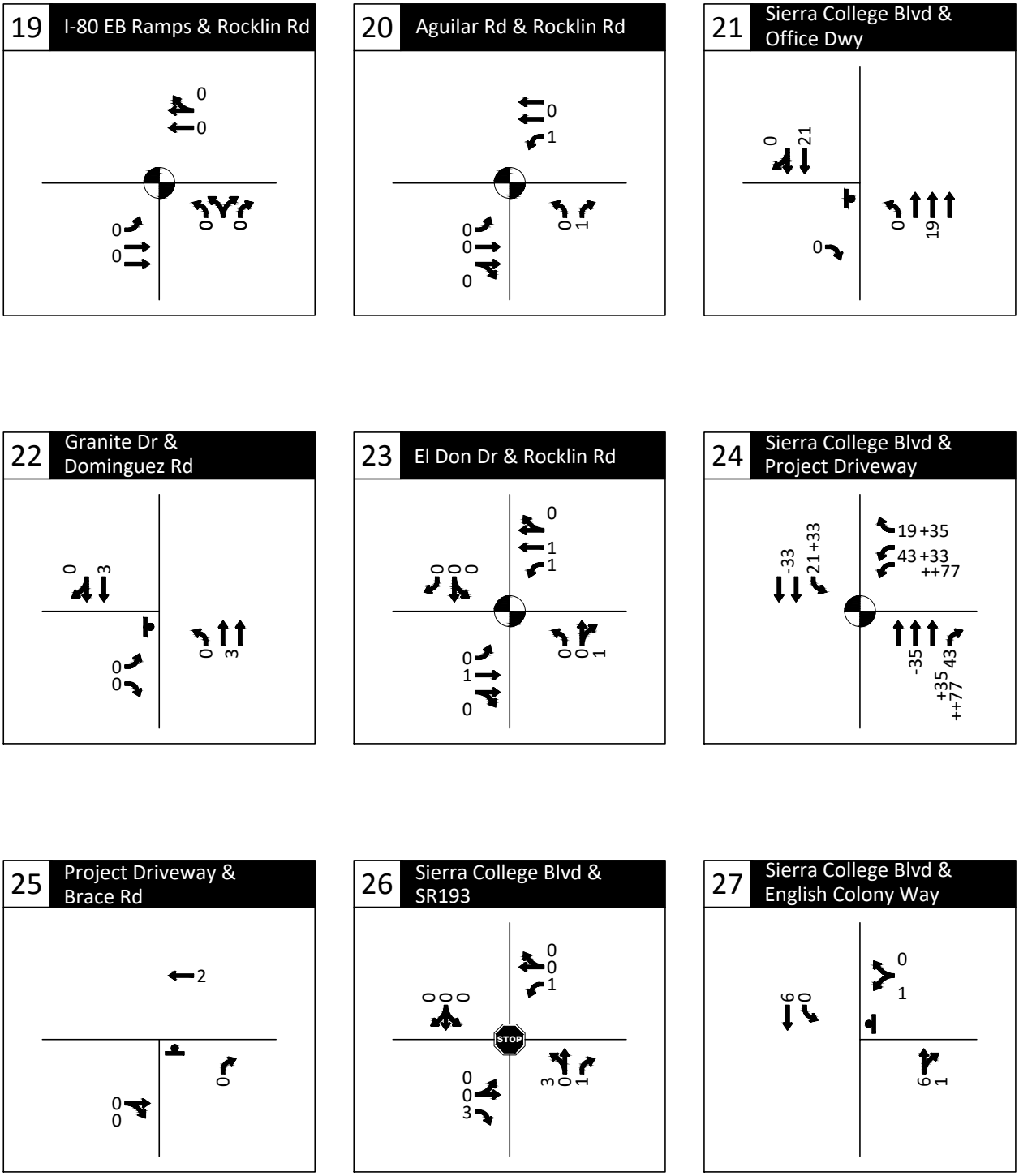


- Weekday AM Traffic Volume
- Stop Sign
- Traffic Signal

+## - Pass by Trips
++## - Diverted Trips
(##) - Apartment Re-Assigned Trips

Project Trip Assignment
Weekday AM Peak Hour
Loomis, California

Figure
G2-B



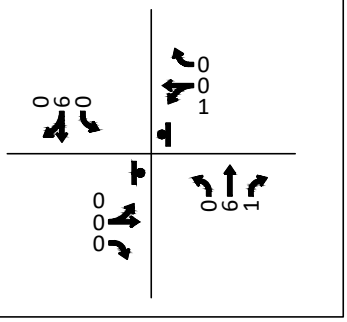
- Weekday AM Traffic Volume
- Stop Sign
- Traffic Signal

+## - Pass by Trips
++## - Diverted Trips
(##) - Apartment Re-Assigned Trips

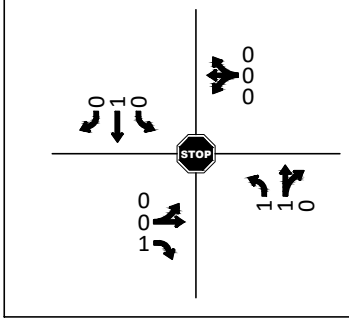
Project Trip Assignment
Weekday AM Peak Hour
Loomis, California

Figure
G2-C

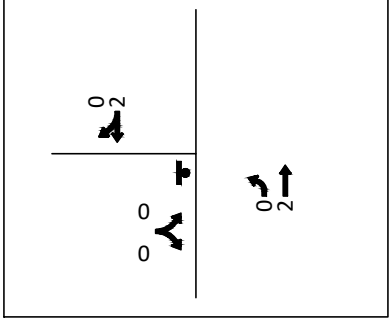
28 Sierra College Blvd & Delmar Ave



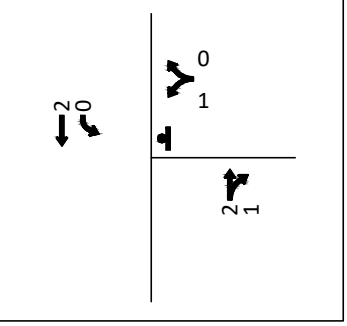
29 Taylor Road & English Colony Way



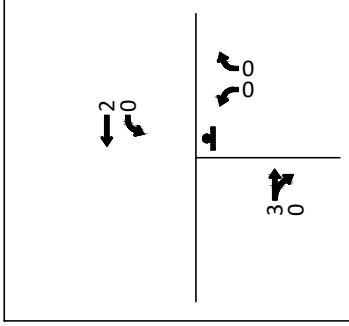
30 Taylor Road & Penryn Road (North)



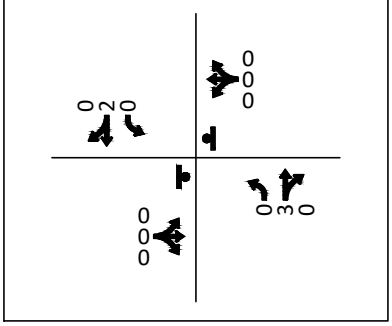
31 Taylor Road & Penryn Road (South)



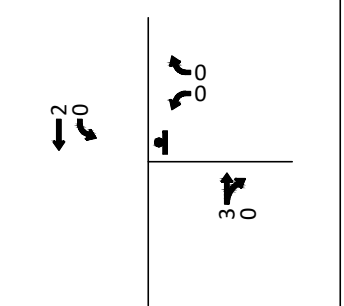
32 Taylor Road & Del Oro High (North Lot)



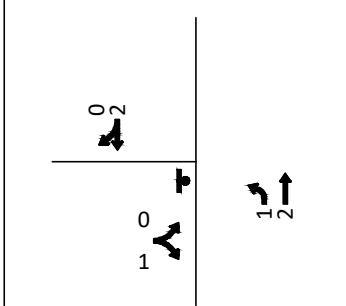
33 Taylor Road & Del Oro High (Drop Off)



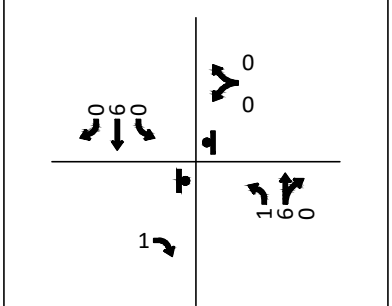
34 Taylor Road & Del Oro High (South Lot)



35 Taylor Road & Rippey Road



36 Taylor Road & Webb Street

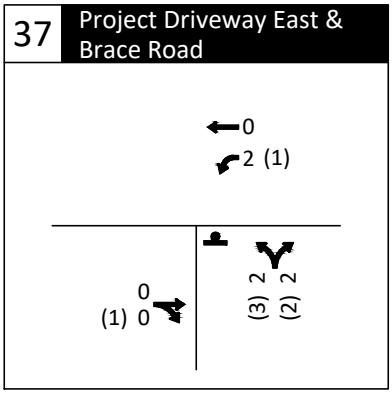


- Weekday AM Traffic Volume
- Stop Sign
- Traffic Signal

+## - Pass by Trips
++## - Diverted Trips
(##) - Apartment Re-Assigned Trips

Project Trip Assignment
Weekday AM Peak Hour
Loomis, California

Figure
G2-D



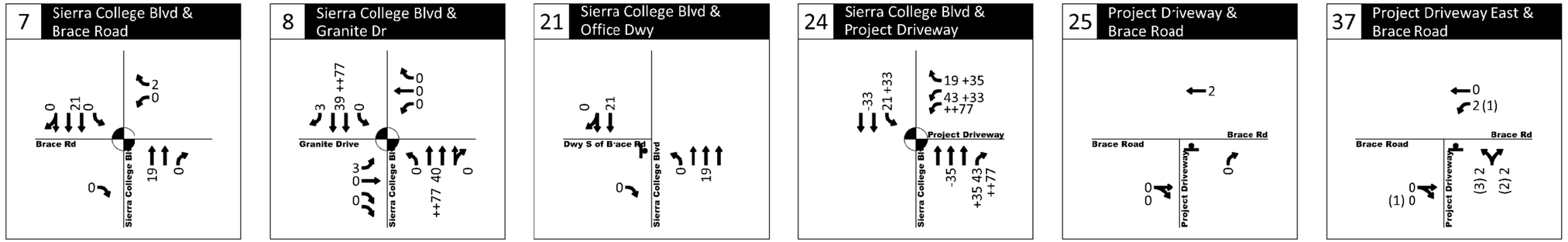
- Weekday AM Traffic Volume
- Stop Sign
- Traffic Signal

+## - Pass by Trips
++## - Diverted Trips
(##) - Apartment Re-Assigned Trips

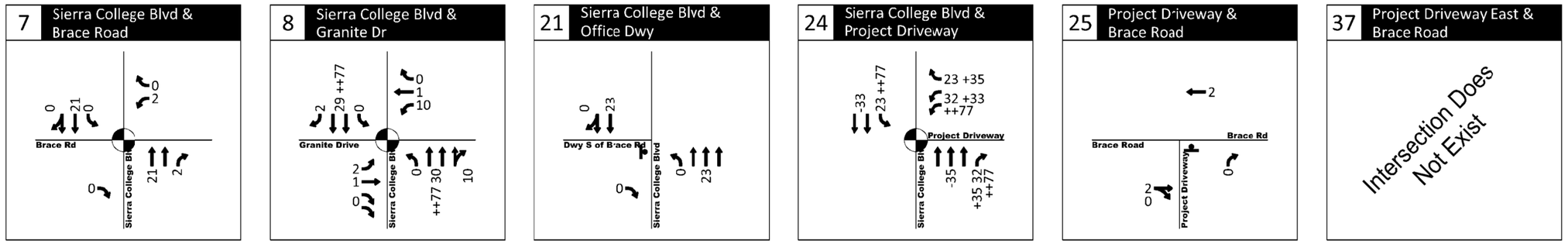
Project Trip Assignment
Weekday AM Peak Hour
Loomis, California

Figure
G2-E

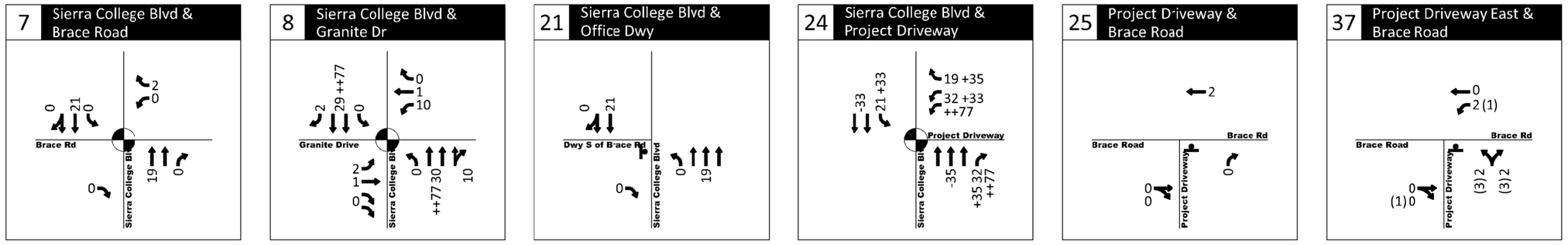
OPTION 1A



OPTION 1B



OPTION 1C



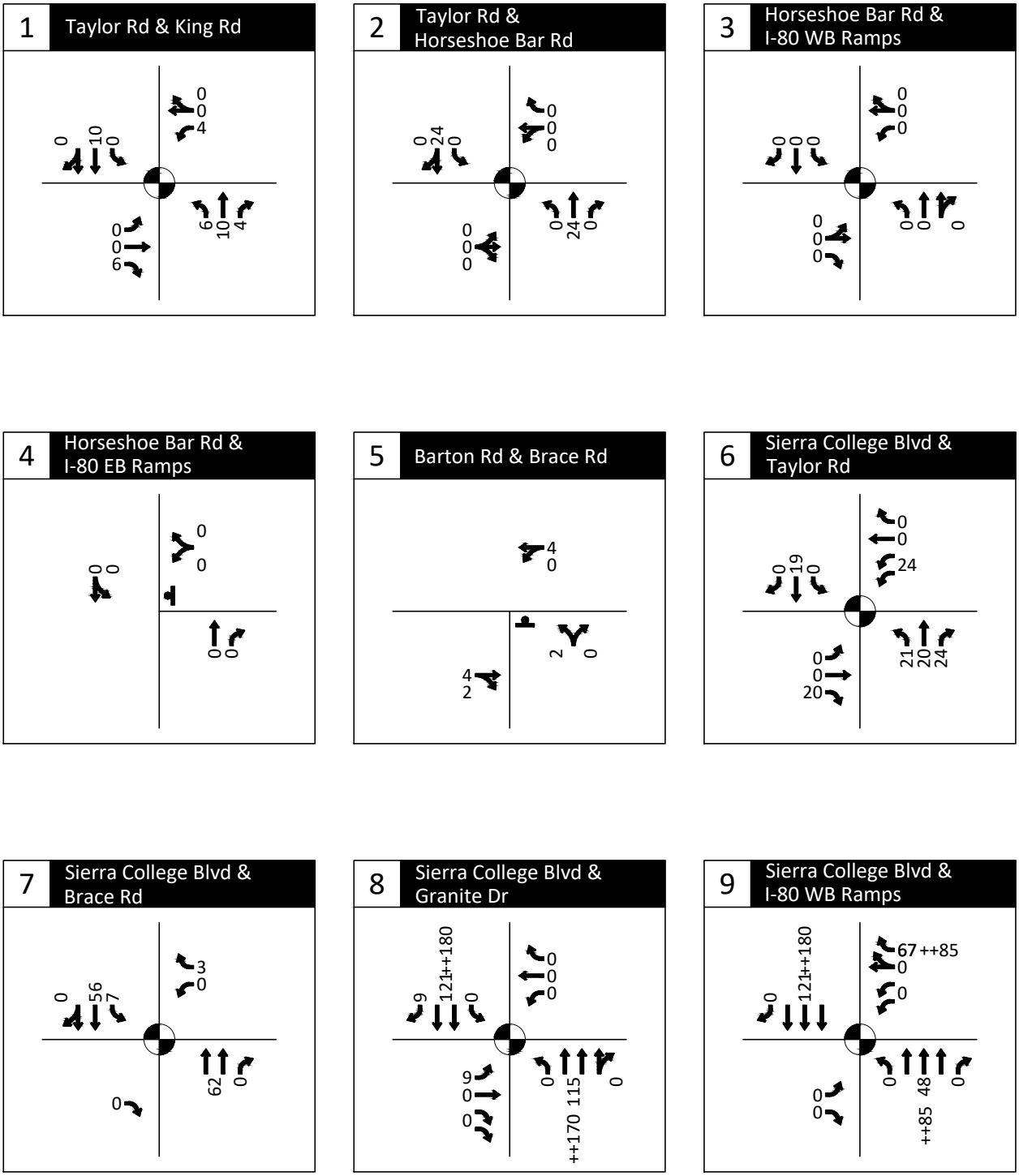
- Weekday AM Traffic Volume
- Stop Sign
- Traffic Signal

+## - Pass by Trips
++## - Diverted Trips
(##) - Apartment Re-Assigned Trips

Project Driveway Options Trip Assignment
Weekday AM Peak Hour
Loomis, California

Figure
G2-F

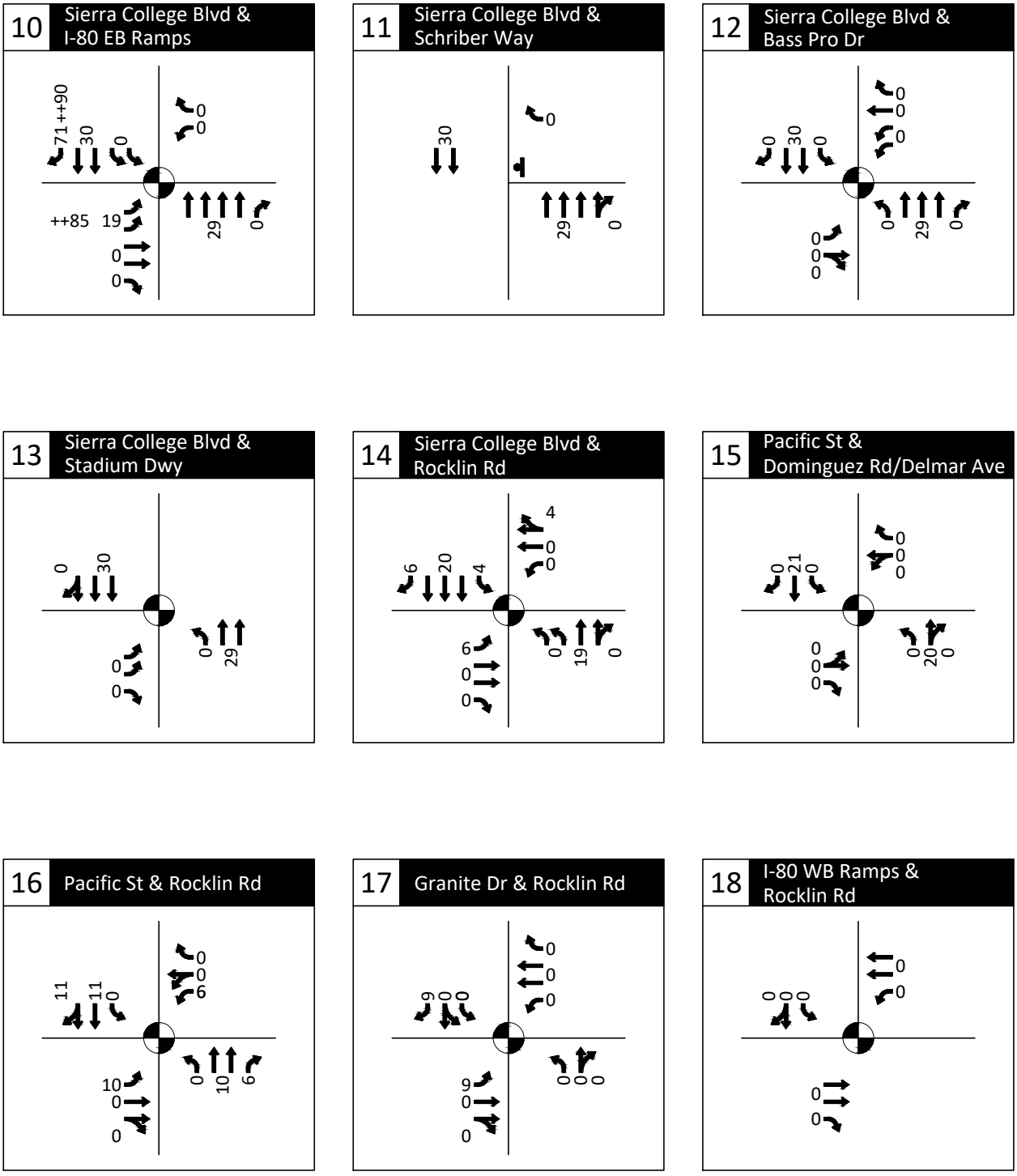
KITTELSON & ASSOCIATES



- Weekday PM Traffic Volume
+## - Pass by Trips
- Stop Sign
++## - Diverted Trips
- Traffic Signal
(##) - Apartment Re-Assigned Trips

Project Trip Assignment
Weekday PM Peak Hour
Loomis, California

Figure
G3-A

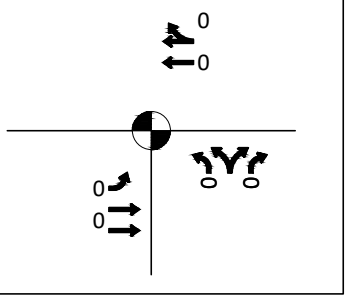


- Weekday PM Traffic Volume
+## - Pass by Trips
- Stop Sign
++## - Diverted Trips
- Traffic Signal
(##) - Apartment Re-Assigned Trips

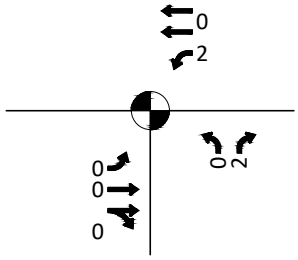
Project Trip Assignment
Weekday PM Peak Hour
Loomis, California

Figure
G3-B

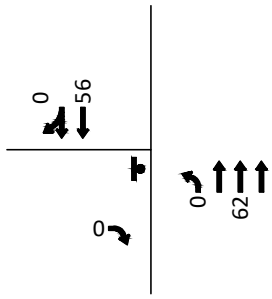
19 I-80 EB Ramps & Rocklin Rd



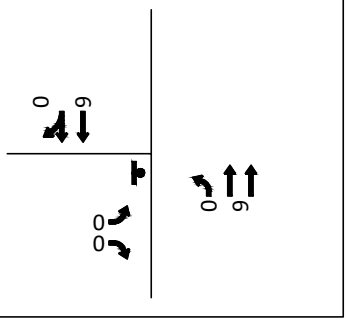
20 Aguilar Rd & Rocklin Rd



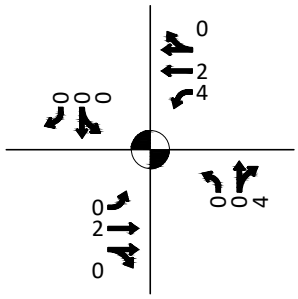
21 Sierra College Blvd & Office Dwy



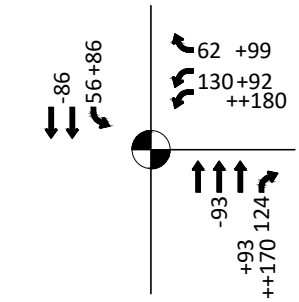
22 Granite Dr & Dominguez Rd



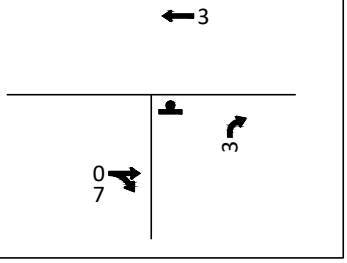
23 El Don Dr & Rocklin Rd



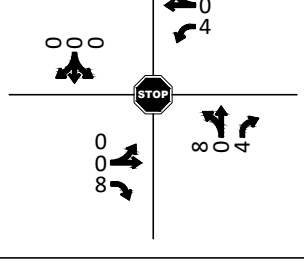
24 Sierra College Blvd & Project Driveway



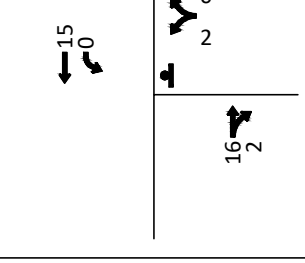
25 Project Driveway & Brace Rd



26 Sierra College Blvd & SR193



27 Sierra College Blvd & English Colony Way

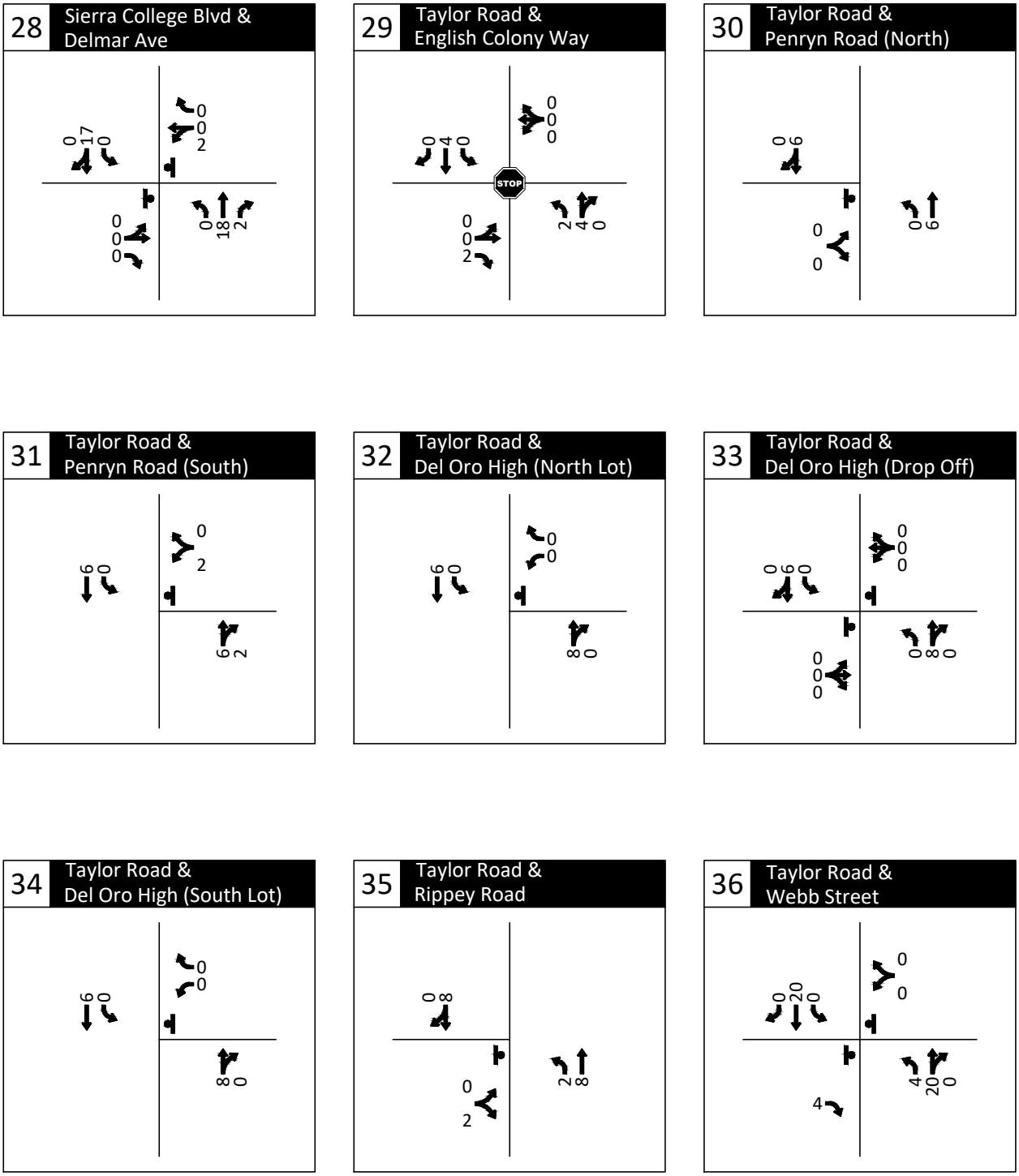


- Weekday PM Traffic Volume
- Stop Sign
- Traffic Signal

+## - Pass by Trips
++## - Diverted Trips
(##) - Apartment Re-Assigned Trips

Project Trip Assignment
Weekday PM Peak Hour
Loomis, California

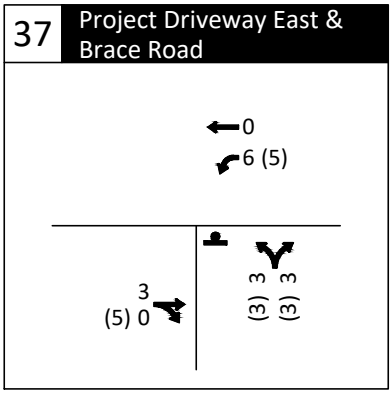
Figure
G3-C



- Weekday PM Traffic Volume
- Stop Sign
- Traffic Signal
+## - Pass by Trips
++## - Diverted Trips
(##) - Apartment Re-Assigned Trips

Project Trip Assignment
Weekday PM Peak Hour
Loomis, California

Figure
G3-D

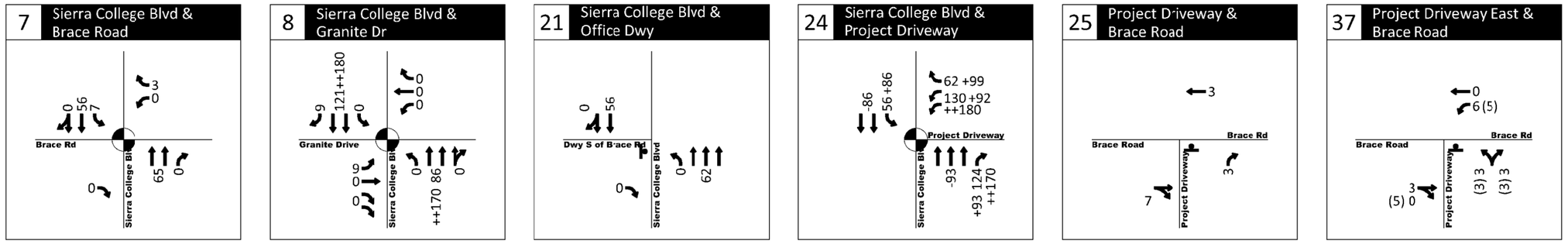


- Weekday PM Traffic Volume
- Stop Sign
- Traffic Signal
+## - Pass by Trips
++## - Diverted Trips
(##) - Apartment Re-Assigned Trips

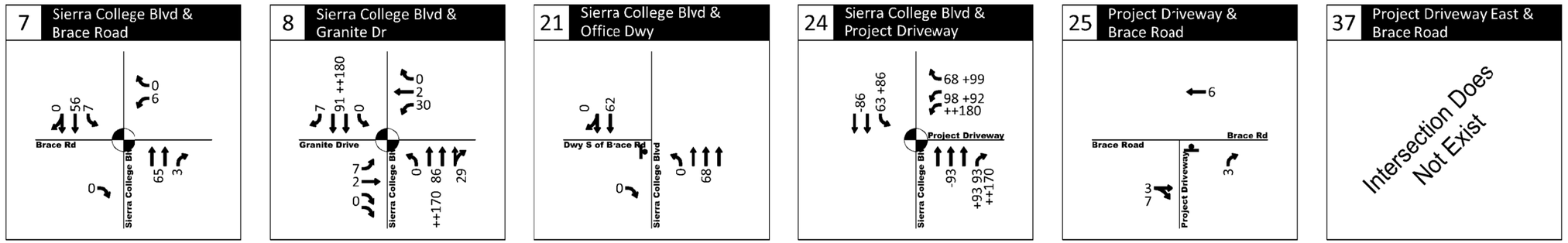
Project Trip Assignment
Weekday PM Peak Hour
Loomis, California

Figure
G3-E

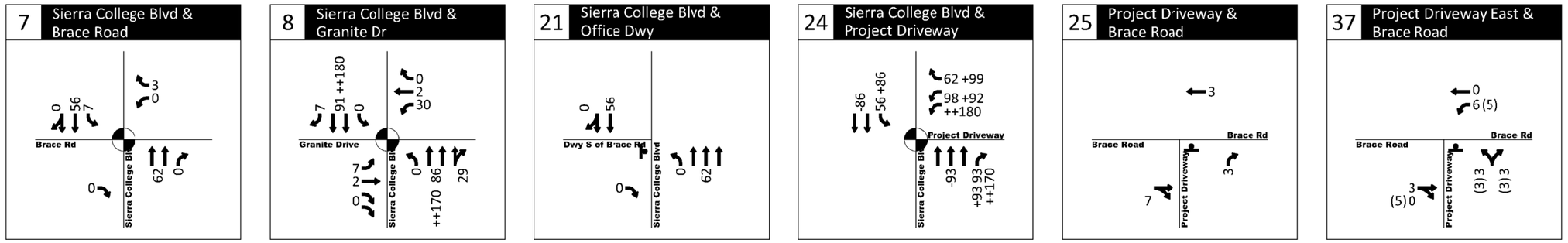
OPTION 1A



OPTION 1B



OPTION 1C



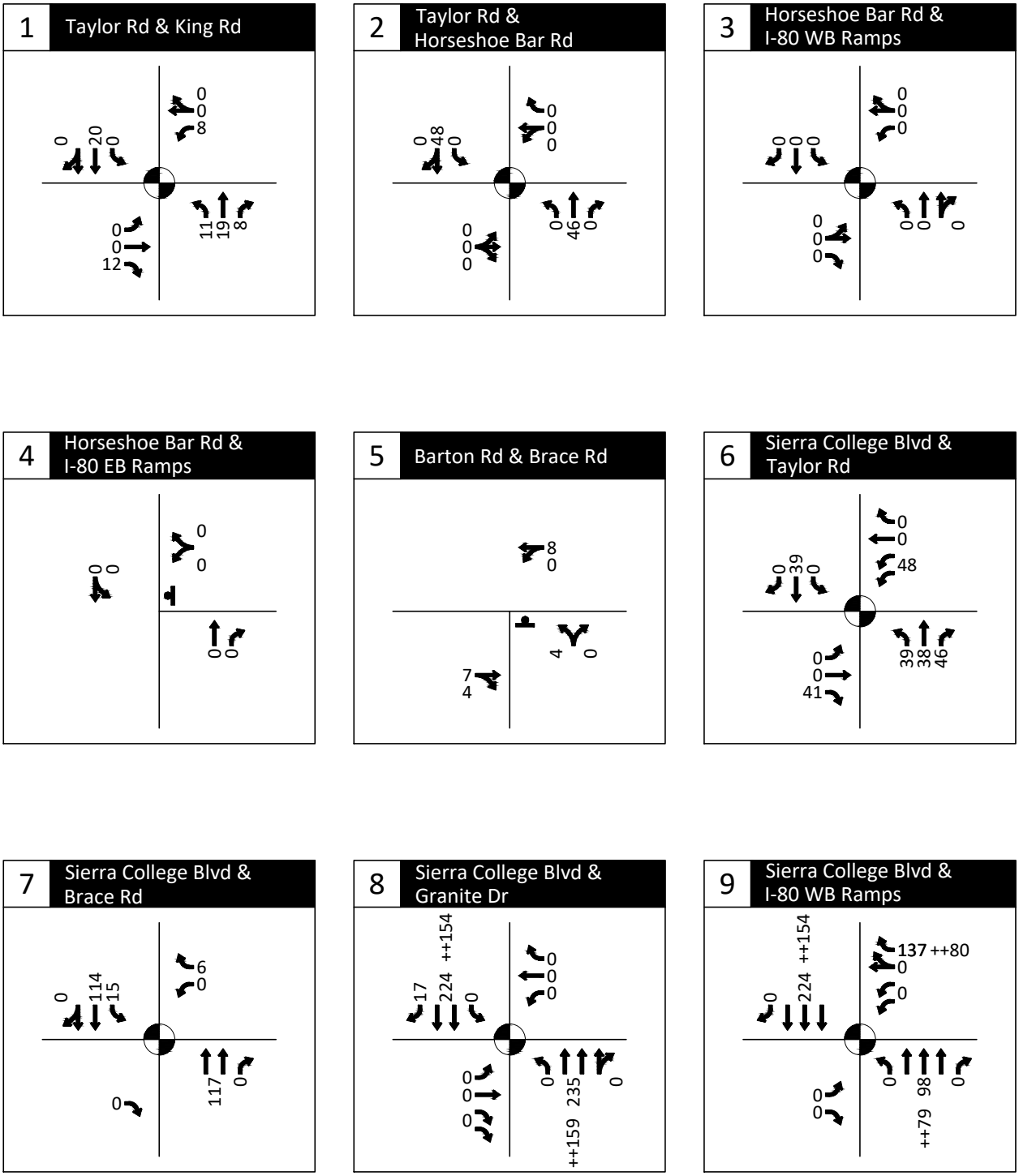
- Weekday PM Traffic Volume
- Stop Sign
- Traffic Signal

+## - Pass by Trips
++## - Diverted Trips
(##) - Apartment Re-Assigned Trips

Project Driveway Options Trip Assignment
Weekday PM Peak Hour
Loomis, California

Figure
G3-F

KITTELSON & ASSOCIATES



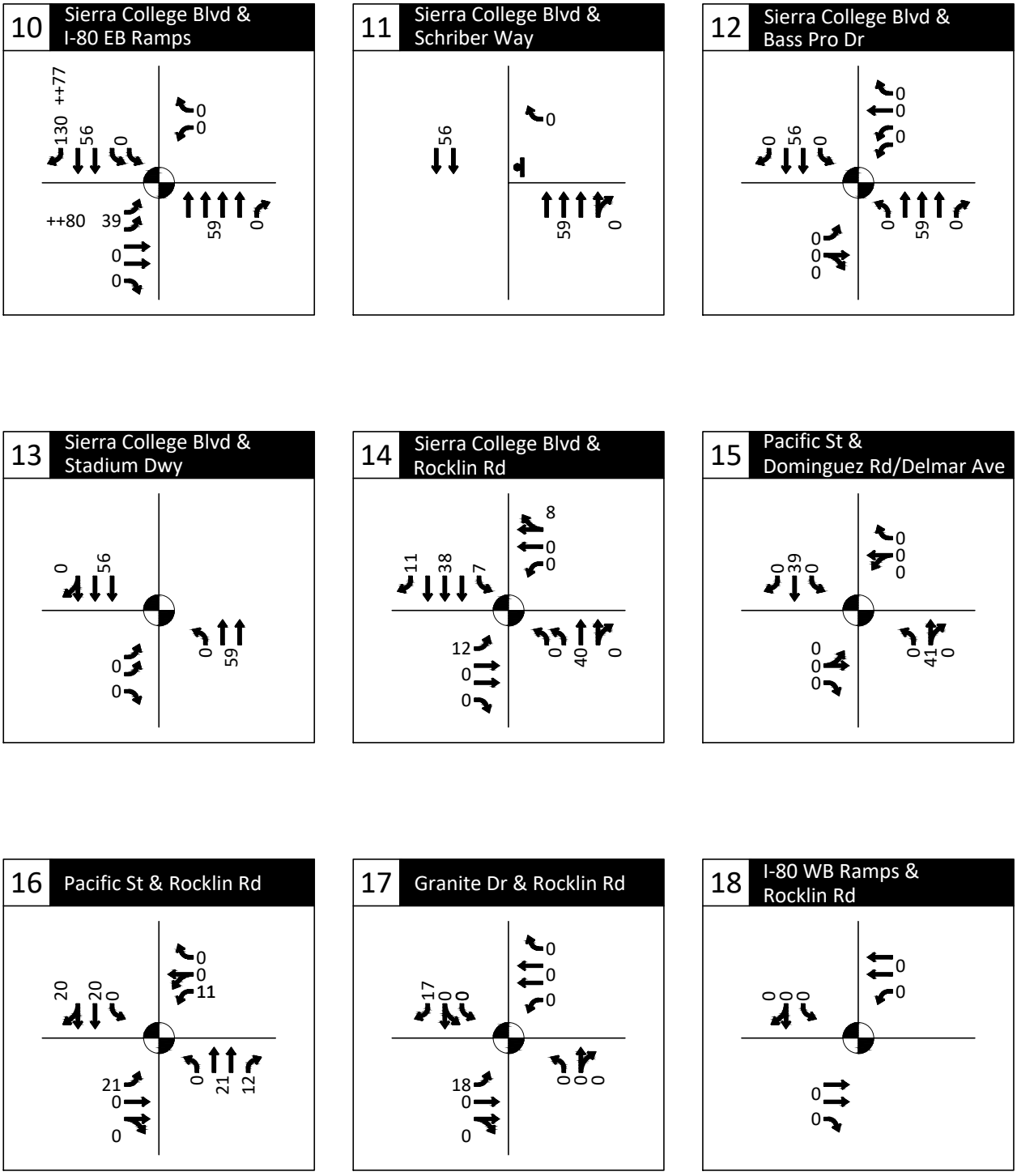
- Weekend Midday Traffic Volume +## - Pass by Trips

- Stop Sign ++## - Diverted Trips

- Traffic Signal (##) - Apartment Re-Assigned Trips

Project Trip Assignment
Weekend Midday Peak Hour
Loomis, California

Figure
G4-A



- Weekend Midday Traffic Volume +## - Pass by Trips

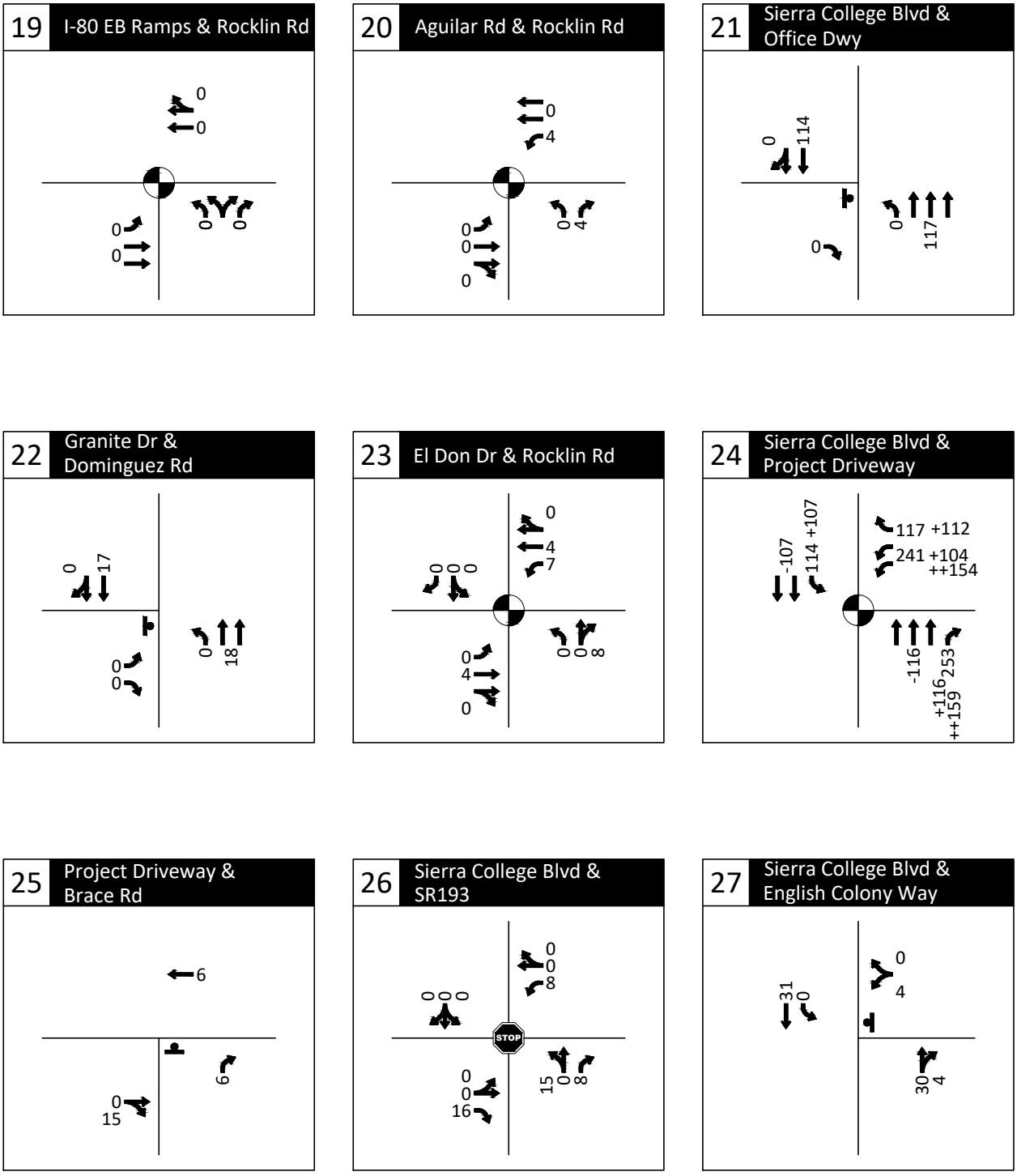
- Stop Sign ++## - Diverted Trips

- Traffic Signal (##) - Apartment Re-Assigned Trips

Project Trip Assignment
Weekend Midday Peak Hour
Loomis, California

Figure
G4-B

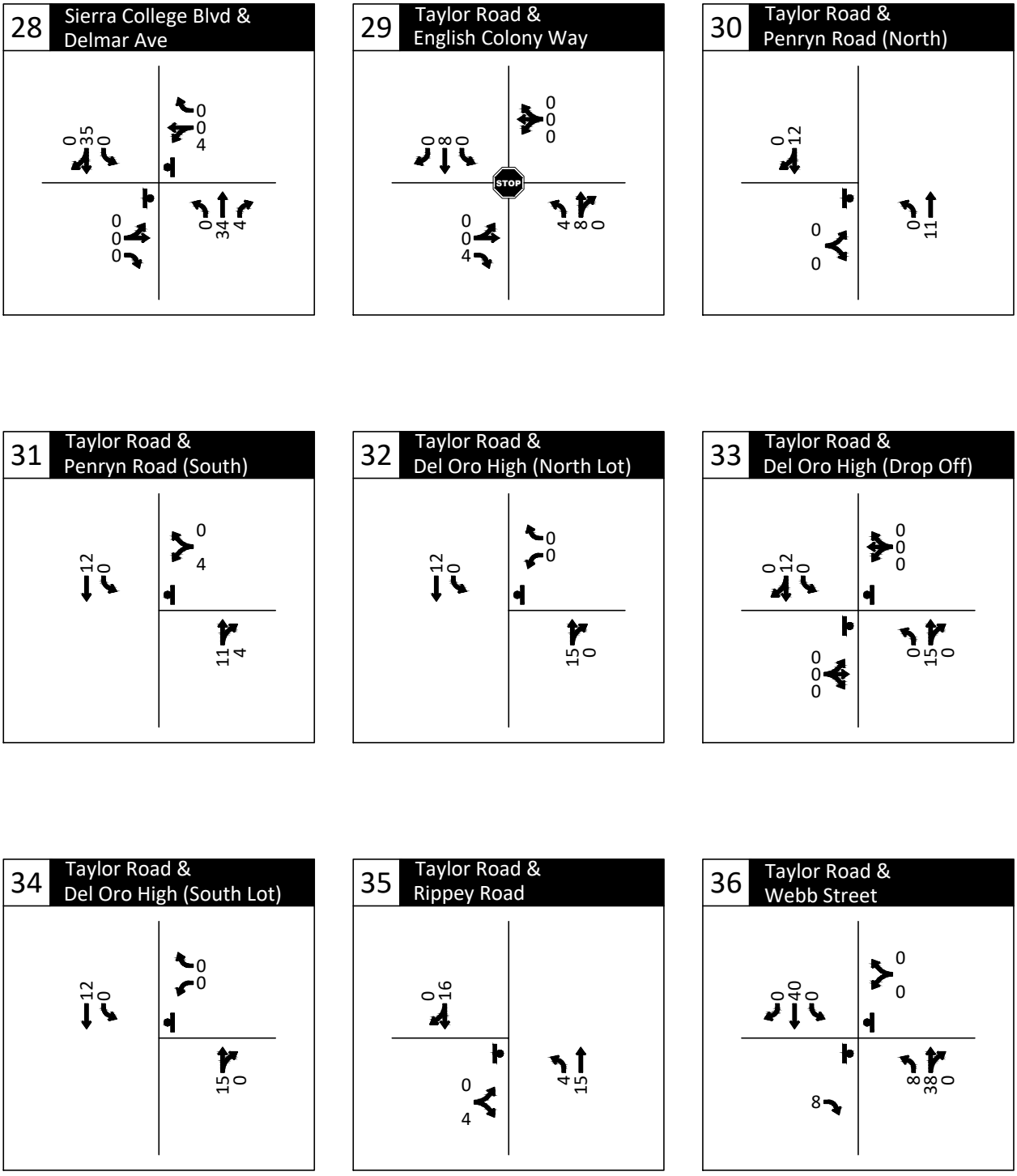
KITTELSON & ASSOCIATES



- Weekend Midday Traffic Volume
+## - Pass by Trips
- Stop Sign
++## - Diverted Trips
- Traffic Signal
(##) - Apartment Re-Assigned Trips

Project Trip Assignment
Weekend Midday Peak Hour
Loomis, California

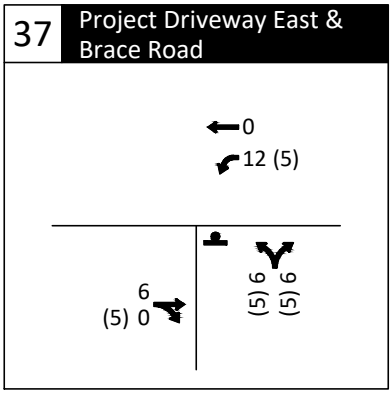
Figure
G4-C



- Weekend Midday Traffic Volume
+## - Pass by Trips
- Stop Sign
++## - Diverted Trips
- Traffic Signal
(##) - Apartment Re-Assigned Trips

Project Trip Assignment
Weekend Midday Peak Hour
Loomis, California

Figure
G4-D



- Weekend Midday Traffic Volume +## - Pass by Trips

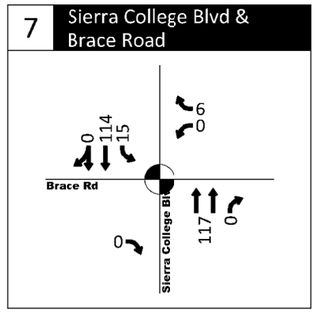
- Stop Sign ++## - Diverted Trips

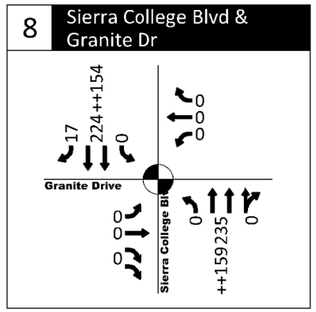
- Traffic Signal (##) - Apartment Re-Assigned Trips

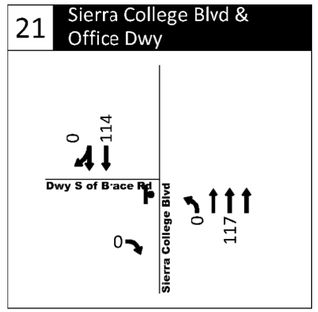
Project Trip Assignment
Weekend Midday Peak Hour
Loomis, California

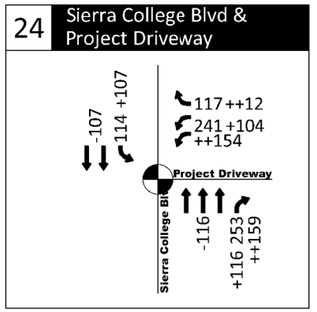
Figure
G4-E

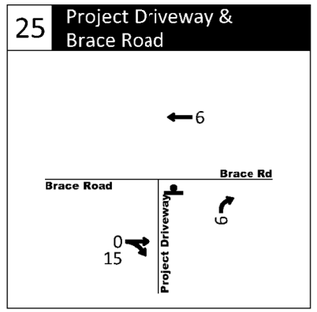
OPTION 1A

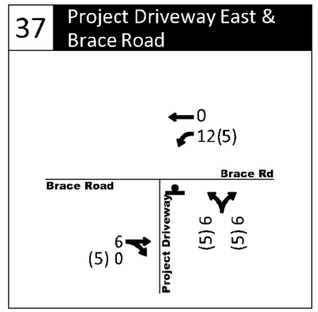




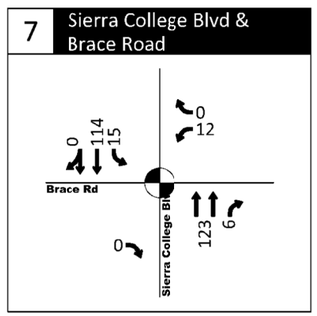


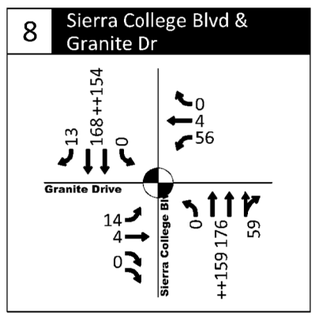


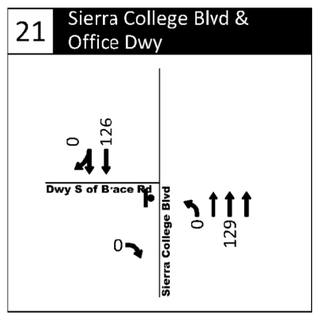


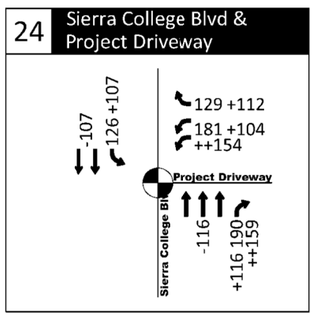


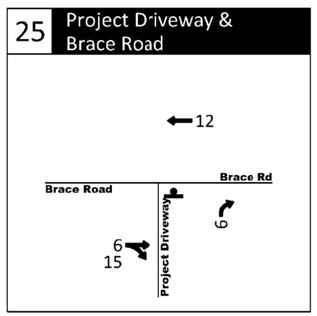
OPTION 1B

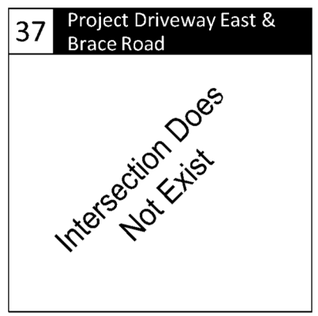




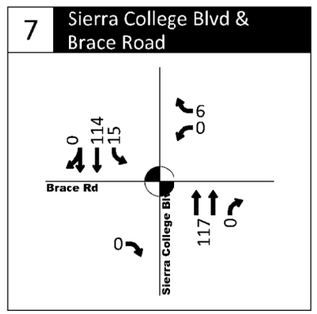


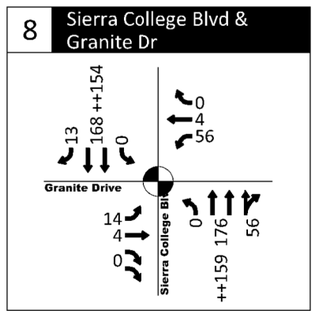


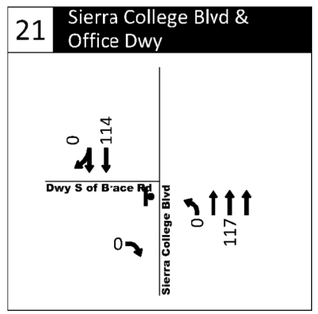


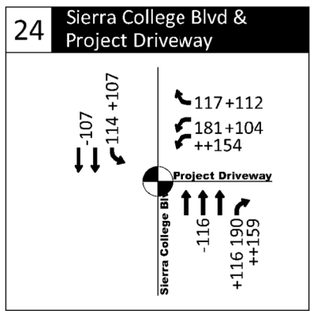


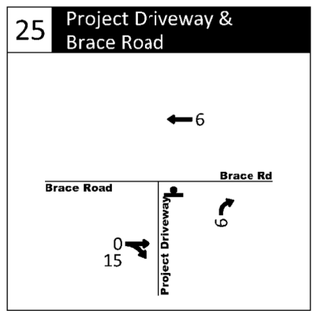
OPTION 1C

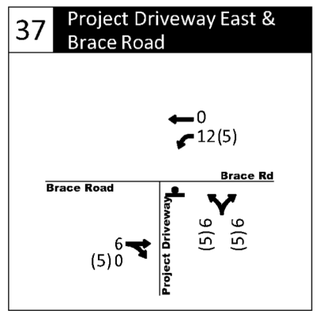












- Weekend Midday Traffic Volume
- Stop Sign
- Traffic Signal

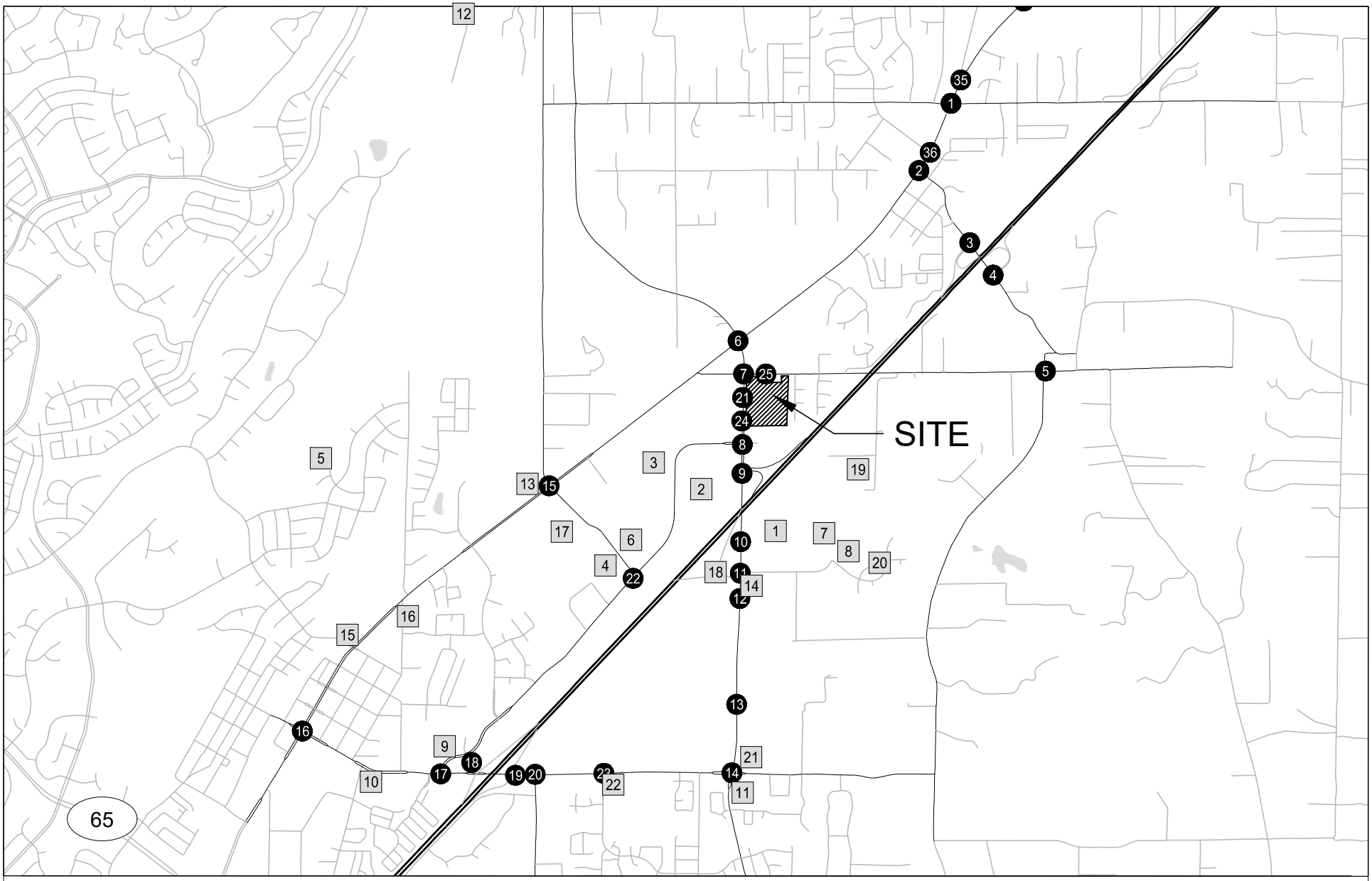
+## - Pass by Trips
++## - Diverted Trips
(##) - Apartment Re-Assigned Trips

Project Driveway Options Trip Assignment
Weekend Midday Peak Hour
Loomis, California

Figure
G4-F

KITTELSON & ASSOCIATES

Appendix H: Approved/Pending Project Trip Generation



- Approved/Pending Projects

Approved/Pending Projects
Loomis, California

Figure

KITTELSON & ASSOCIATES

TRIP GENERATION
LOOMIS COSTCO WAREHOUSE PROJECT

Table 1: Trip Generation Rates

Land Use	Rate	Daily	AM Peak Hour			PM Peak Hour			Sat Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Shopping Center (ITE Code 820)	per 1,000 sf	42.70	62%	38%	0.96	48%	52%	exp(0.67*ln(x)+3.31)	52%	48%	exp(0.65*ln(x)+3.78)
Single-Family Detached Housing (ITE Code 210)	per du	9.52	25%	75%	0.7*x+9.74	63%	37%	exp(0.90*ln(x)+0.51)	54%	46%	0.89*x+8.77
County Park(ITE Code 412)	per acre	2.3	61%	39%	0.02	61%	39%	0.09	57%	43%	2.21
Apartment (ITE Code 220)	per du	6.65	20%	80%	0.49*x+3.73	65%	35%	0.55*x+17.65	50%	50%	0.52
Senior Adult Housing - detached (ITE Code 251)	per du	4.27	33%	67%	0.24	61%	39%	0.30	48%	52%	0.23
Elementary School (ITE Code 520)	per student	1.89	54%	46%	0.67						

*use County park instead of City Park since City park does not have peak hour general
*direction percentage is borrowed from Sunday

Table 2: Trip Generation Estimates

ID	Name	Land Use	Size		Daily	AM Peak Hour			PM Peak Hour			Sat Peak Hour			LOC
						In	Out	Total	In	Out	Total	In	Out	Total	
1	Rockling Crossings	Shopping Center (ITE Code 820)	83	ksf	3,544	50	30	80	254	275	529	403	372	775	SE quadrant of I-80/Sierra College Blvd.
2	Rocklin Commons	Shopping Center (ITE Code 820)	120	ksf	5,124	71	44	115	325	352	677	512	472	984	NW quadrant of I-80/Sierra College Blvd.
3	Garnet Creek	Single Family (ITE Code 210)	81	du	1,142	17	49	66	55	32	87	44	37	81	On Granite Drive, opposite Target
		Apartmennt(ITE Code 220)	260	du	1,729	26	105	131	104	57	161	68	67	135	
4	Granite Dominguez Subdivision	Single Family (ITE Code 210)	71	du	676	15	44	59	49	28	77	39	33	72	On Granite Drive, west of Dominguez Rd.
5	Los Cerros Subdivision	Single Family (ITE Code 210)	115	du	1,095	23	67	90	75	44	119	60	51	111	On ridge along Hillside Dr.
6	Brighton Subdivision	Single Family (ITE Code 210)	72	du	685	15	45	60	49	29	78	39	34	73	NE corner of Granite and Dominguez
7	Rocklin 60	Single Family (ITE Code 210)	179	du	1,704	34	101	135	112	65	177	91	77	168	Behind Rocklin Crossings along Schriber Way
8	Croftwood	Single Family (ITE Code 210)	51	du	486	11	34	45	36	21	57	29	25	54	East of Schriber Way
9	Granite Terrace	Single Family (ITE Code 210)	42	du	400	10	29	39	30	18	48	25	21	46	Behind Rocklin library
10	Avalon Subdivision	Single Family (ITE Code 210)	76	du	724	16	47	63	52	30	82	41	35	76	On Rocklin Road east of Grove Street
11	Sierra Gateway Apts	Apartmennt(ITE Code 220)	195	du	1,297	20	79	99	81	44	125	51	50	101	SE corner of Rocklin Road/Sierra College Blvd.
12	Clover Valley Residential	Single Family (ITE Code 210)	558	du	5,312	100	300	400	311	183	494	273	232	505	West of Sierra College Boulevard and east of Whitney Oaks
13	Parklands Subdivision	Single Family (ITE Code 210)	142	du	1,352	27	82	109	91	53	144	73	62	135	North of Pacific Street west of Del Mar Ave.
14	The Center at Secret Ravine	Shopping Center (ITE Code 820)	16	*ksf*	683	9	6	15	84	91	175	138	128	266	East of Sierra College south Rocklin Crossings
15	Rocklin Gateway Apartment	Apartmennt(ITE Code 220)	204	du	1,357	21	83	104	84	46	130	53	53	106	North of Pacific St, and east of Midas Ave.
16	Quarry Row Subdivision	Single Family (ITE Code 210)	64	du	609	14	41	55	44	26	70	35	31	66	Southeast corner of Grove and Pacific Streets
17	Sierra Pine Subdivision	Single Family (ITE Code 210)	199	du	1,894	37	112	149	123	72	195	100	86	186	West side of Dominguez Road, between Pacific Street and Granite Drive
18	Rocklin Station*	Shopping Center (ITE Code 820)	33	ksf	1,409	20	12	32	137	148	285	221	204	425	West side of Sierra College Boulevard directly south of the I-80 SCB Interchange
19	Oak Vista Subdivision	Single Family (ITE Code 210)	63	du	600	13	41	54	44	25	69	35	30	65	r of Makabe Lane and Dias Lane, adjacent on one boundary to the eastern city limits o
20	Croftwood 2	Single Family (ITE Code 210)	63	*du*	600	13	41	54	44	25	69	35	30	65	West side of Barton Road at the Terminus of Lakepointe Drive
21	Sierra Villages North (SCB Site)	Single Family (ITE Code 210)	349	du	3,322	64	190	254	204	120	324	172	147	319	North Village: NE corner of Rocklin Rd./Sierra College Blvd. (72 +/- acres)
		mixed use (No additional details provided, instructe	15.9	acres											
		park	14.8	acres	34	0	0	0	1	0	1	19	14	33	
22	Sierra Villages South (Rocklin Road S	Single Family (ITE Code 210)	37	du	352	9	27	36	27	16	43	23	19	42	South Village: SE corner of Rocklin Rd./El Don Dr. (36+/- acres)
		mixed use (No additional details provided, instructe	11.6	acres											
		park	16.4	acres	37	0	0	0	1	0	1	21	16	36	
23	Bickford Ranch Phase 1 (949.5 acres)	Single Family (Traditional)	470	du	4,474	88	265	353	296	174	470	231	196	427	
		Single Family (Active-Adut)	475	du	3,496	34	71	105	78	51	129	52	57	109	
		Recreation Center	7.35	acres	1,000	13	13	25	25	25	50	25	25	50	
		Elementary School	250	students	645	61	52	113	0	0	0	0	0	0	
		Internal Capture			-2,145	-75	-75	-150	-38	-38	-75	-38	-38	-75	
		External Trips			**7,470**	**121**	**324**	**445**	**362**	**212**	**574**	**271**	**241**	**511**	
24	Amazing Facts Phase 1	Church	1650	Seats	0	0	0	0	0	0	0	426	564	990	
TOTAL					**36,167**	**635**	**1,611**	**2,246**	**2,416**	**1,802**	**4,219**	**2,599**	**2,327**	**4,926**	

Notes:
du - dwelling units
SF - square feet

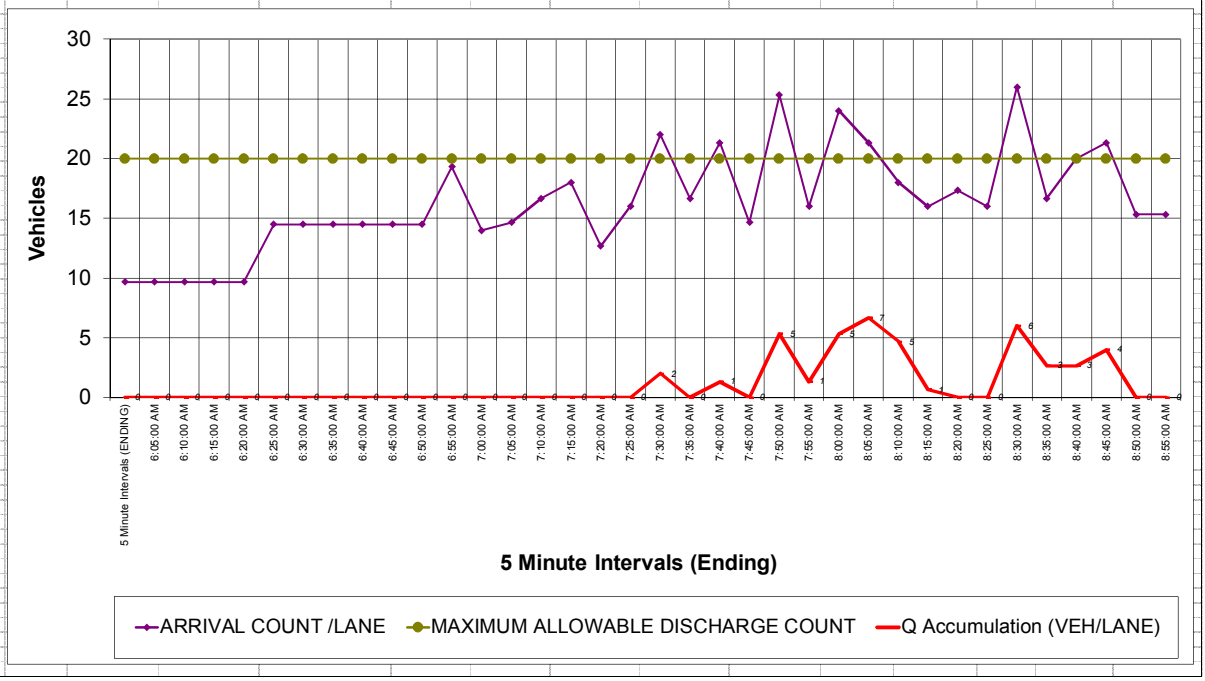
Appendix I: Ramp Metering Worksheets

I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ Exist AM

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
6:05:00 AM	10	20	0		116	15	240	-	-	1200	-	-	0	0.0
6:10:00 AM	10	20	0		116	15	240	-	-	1200	-	-	0	0.0
6:15:00 AM	10	20	0		116	15	240	-	-	1200	-	-	0	0.0
6:20:00 AM	10	20	0		116	15	240	-	-	1200	-	-	0	0.0
6:25:00 AM	10	20	0		116	15	240	-	-	1200	-	-	0	0.0
6:30:00 AM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
6:35:00 AM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
6:40:00 AM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
6:45:00 AM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
6:50:00 AM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
6:55:00 AM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
7:00:00 AM	19	20	0		232	29	240	-	-	1200	-	-	0	0.0
7:05:00 AM	14	20	0		168	21	240	-	-	1200	-	-	0	0.0
7:10:00 AM	15	20	0		176	22	240	-	-	1200	-	-	0	0.0
7:15:00 AM	17	20	0		200	25	240	-	-	1200	-	-	0	0.0
7:20:00 AM	18	20	0		216	27	240	-	-	1200	-	-	0	0.0
7:25:00 AM	13	20	0		152	19	240	-	-	1200	-	-	0	0.0
7:30:00 AM	16	20	0		192	24	240	-	-	1200	-	-	0	0.0
7:35:00 AM	22	20	2	2	264	33	240	250	-	1200	50	-	22	0.2
7:40:00 AM	17	20	0		200	25	240	-	-	1200	-	-	0	0.0
7:45:00 AM	21	20	1	1	256	32	240	250	-	1200	33	-	21	0.1
7:50:00 AM	15	20	0		176	22	240	-	-	1200	-	-	0	0.0
7:55:00 AM	25	20	5	5	304	38	240	350	-	1200	133	-	25	0.4
8:00:00 AM	16	20	1		192	24	240	200	-	1200	33	-	16	0.1
8:05:00 AM	24	20	5	4	288	36	240	350	-	1200	133	-	24	0.4
8:10:00 AM	21	20	7	1	256	32	240	300	-	1200	167	-	21	0.6
8:15:00 AM	18	20	5		216	27	240	250	-	1200	117	-	18	0.4
8:20:00 AM	16	20	1		192	24	240	200	-	1200	17	-	16	0.1
8:25:00 AM	17	20	0		208	26	240	-	-	1200	-	-	0	0.0
8:30:00 AM	16	20	0		192	24	240	-	-	1200	-	-	0	0.0
8:35:00 AM	26	20	6	6	312	39	240	350	-	1200	150	-	26	0.5
8:40:00 AM	17	20	3		200	25	240	200	-	1200	67	-	17	0.2
8:45:00 AM	20	20	3		240	30	240	250	-	1200	67	-	20	0.2
8:50:00 AM	21	20	4	1	256	32	240	300	-	1200	100	-	21	0.3
8:55:00 AM	15	20	0		184	23	240	-	-	1200	-	-	0	0.0
9:00:00 AM	15	20	0		184	23	240	-	-	1200	-	-	0	0.0
	590	**720**		**21**		**885**							**248**	**3.56**
	MAX Q (VEH/LN)=		**7**	**MAX RATE (VPH)=**	**312**					**MAX Q (FT/LN)=**	**167**	-	**26**	

(Min=240, Max=900vph/lane)

	INPUT	Suggested							
						Meter Rate =	**240**		
LANES=	**1.5**	1.5						**Avg Delay/veh (hr)=**	0.014
Ramp Length=	1200	167	FEET =	51	METERS			**Avg Delay/veh (sec)=**	**52**
Car Length (ft)=	25	8	METERS						

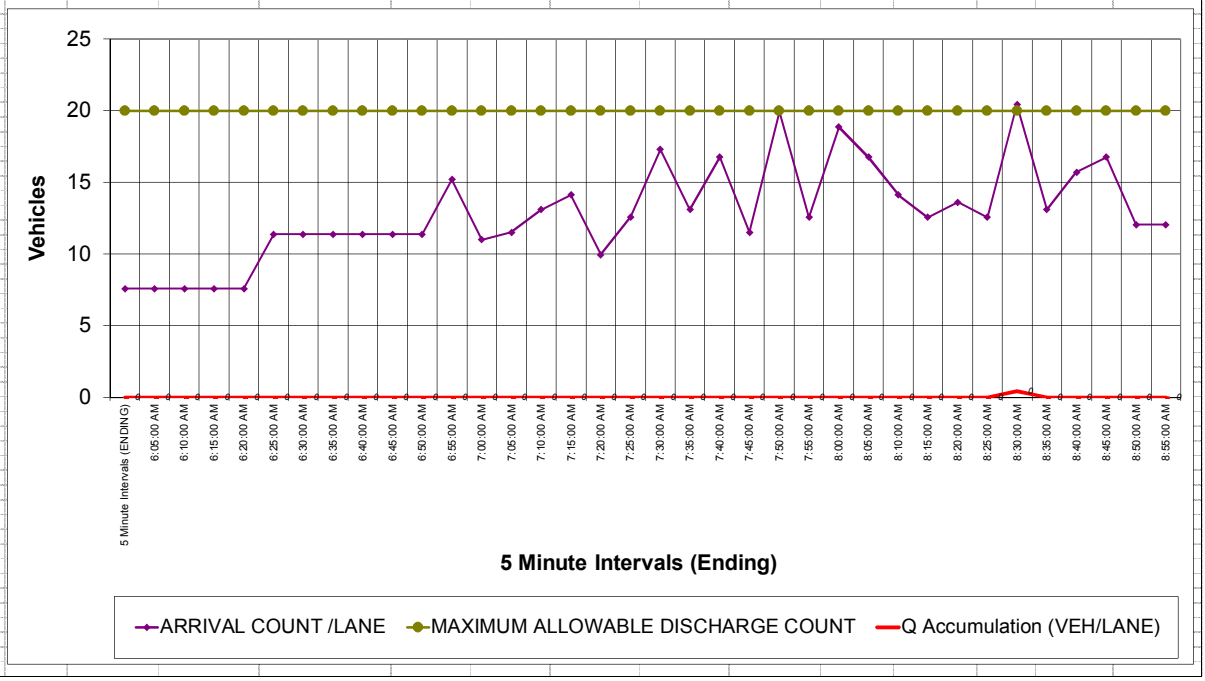


I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ Short AM

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
6:05:00 AM	8	20	0		91	11	240	-	-	1200	-	-	0	0.0
6:10:00 AM	8	20	0		91	11	240	-	-	1200	-	-	0	0.0
6:15:00 AM	8	20	0		91	11	240	-	-	1200	-	-	0	0.0
6:20:00 AM	8	20	0		91	11	240	-	-	1200	-	-	0	0.0
6:25:00 AM	8	20	0		91	11	240	-	-	1200	-	-	0	0.0
6:30:00 AM	11	20	0		137	17	240	-	-	1200	-	-	0	0.0
6:35:00 AM	11	20	0		137	17	240	-	-	1200	-	-	0	0.0
6:40:00 AM	11	20	0		137	17	240	-	-	1200	-	-	0	0.0
6:45:00 AM	11	20	0		137	17	240	-	-	1200	-	-	0	0.0
6:50:00 AM	11	20	0		137	17	240	-	-	1200	-	-	0	0.0
6:55:00 AM	11	20	0		137	17	240	-	-	1200	-	-	0	0.0
7:00:00 AM	15	20	0		182	23	240	-	-	1200	-	-	0	0.0
7:05:00 AM	11	20	0		132	17	240	-	-	1200	-	-	0	0.0
7:10:00 AM	12	20	0		138	17	240	-	-	1200	-	-	0	0.0
7:15:00 AM	13	20	0		157	20	240	-	-	1200	-	-	0	0.0
7:20:00 AM	14	20	0		170	21	240	-	-	1200	-	-	0	0.0
7:25:00 AM	10	20	0		119	15	240	-	-	1200	-	-	0	0.0
7:30:00 AM	13	20	0		151	19	240	-	-	1200	-	-	0	0.0
7:35:00 AM	17	20	0		208	26	240	-	-	1200	-	-	0	0.0
7:40:00 AM	13	20	0		157	20	240	-	-	1200	-	-	0	0.0
7:45:00 AM	17	20	0		201	25	240	-	-	1200	-	-	0	0.0
7:50:00 AM	12	20	0		138	17	240	-	-	1200	-	-	0	0.0
7:55:00 AM	20	20	0		239	30	240	-	-	1200	-	-	0	0.0
8:00:00 AM	13	20	0		151	19	240	-	-	1200	-	-	0	0.0
8:05:00 AM	19	20	0		226	28	240	-	-	1200	-	-	0	0.0
8:10:00 AM	17	20	0		201	25	240	-	-	1200	-	-	0	0.0
8:15:00 AM	14	20	0		170	21	240	-	-	1200	-	-	0	0.0
8:20:00 AM	13	20	0		151	19	240	-	-	1200	-	-	0	0.0
8:25:00 AM	14	20	0		163	20	240	-	-	1200	-	-	0	0.0
8:30:00 AM	13	20	0		151	19	240	-	-	1200	-	-	0	0.0
8:35:00 AM	20	20	0	0	245	31	240	250	-	1200	11	-	20	0.0
8:40:00 AM	13	20	0		157	20	240	-	-	1200	-	-	0	0.0
8:45:00 AM	16	20	0		189	24	240	-	-	1200	-	-	0	0.0
8:50:00 AM	17	20	0		201	25	240	-	-	1200	-	-	0	0.0
8:55:00 AM	12	20	0		145	18	240	-	-	1200	-	-	0	0.0
9:00:00 AM	12	20	0		145	18	240	-	-	1200	-	-	0	0.0
	464	**720**		**0**		**696**							**20**	**0.04**
	MAX Q (VEH/LN)=		**0**	**MAX RATE (VPH)=**	**245**					**MAX Q (FT/LN)=**	**11**	-	**20**	

(Min=240, Max=900vph/lane)

	INPUT	Suggested											
						Meter Rate =	**240**					Avg Delay/veh (hr)=	0.002
LANES=	**1.5**	1					4	vps/lane				**Avg Delay/veh (sec)=**	**6**
Ramp Length=	1200	11	FEET =	3	METERS								
Car Length (ft)=	25	8	METERS										

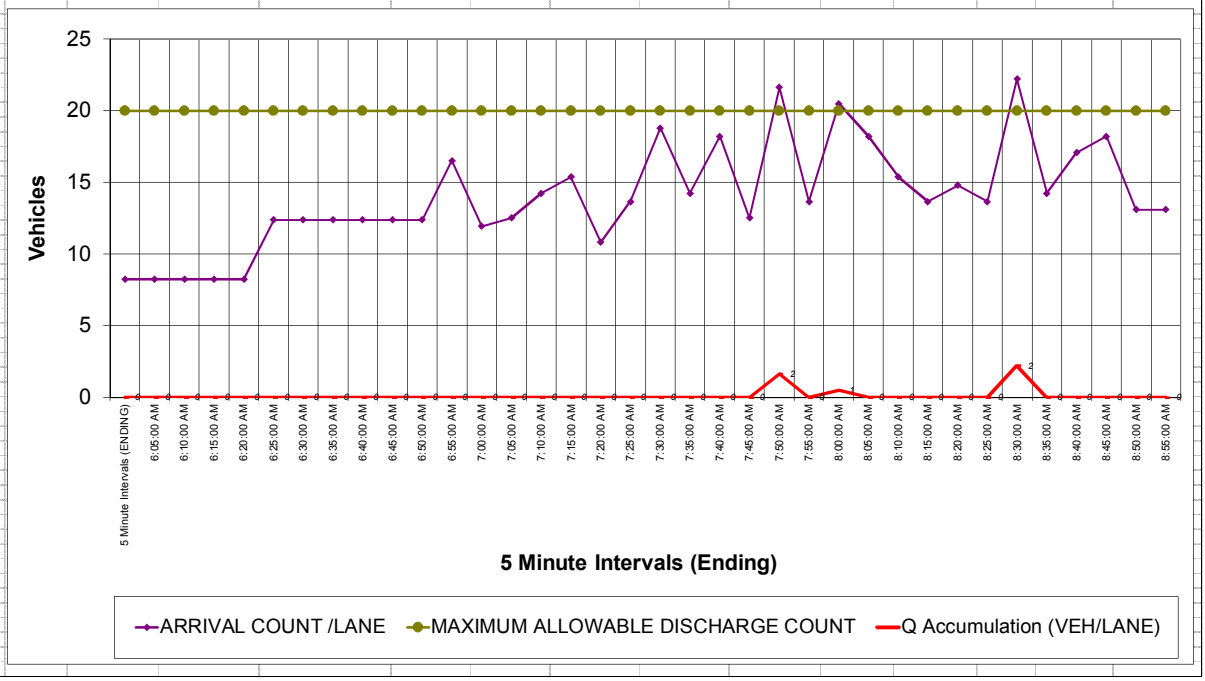


I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ Short AM Proj

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
6:05:00 AM	8	20	0		99	12	240	-	-	1200	-	-	0	0.0
6:10:00 AM	8	20	0		99	12	240	-	-	1200	-	-	0	0.0
6:15:00 AM	8	20	0		99	12	240	-	-	1200	-	-	0	0.0
6:20:00 AM	8	20	0		99	12	240	-	-	1200	-	-	0	0.0
6:25:00 AM	8	20	0		99	12	240	-	-	1200	-	-	0	0.0
6:30:00 AM	12	20	0		149	19	240	-	-	1200	-	-	0	0.0
6:35:00 AM	12	20	0		149	19	240	-	-	1200	-	-	0	0.0
6:40:00 AM	12	20	0		149	19	240	-	-	1200	-	-	0	0.0
6:45:00 AM	12	20	0		149	19	240	-	-	1200	-	-	0	0.0
6:50:00 AM	12	20	0		149	19	240	-	-	1200	-	-	0	0.0
6:55:00 AM	12	20	0		149	19	240	-	-	1200	-	-	0	0.0
7:00:00 AM	17	20	0		198	25	240	-	-	1200	-	-	0	0.0
7:05:00 AM	12	20	0		144	18	240	-	-	1200	-	-	0	0.0
7:10:00 AM	13	20	0		150	19	240	-	-	1200	-	-	0	0.0
7:15:00 AM	14	20	0		171	21	240	-	-	1200	-	-	0	0.0
7:20:00 AM	15	20	0		185	23	240	-	-	1200	-	-	0	0.0
7:25:00 AM	11	20	0		130	16	240	-	-	1200	-	-	0	0.0
7:30:00 AM	14	20	0		164	21	240	-	-	1200	-	-	0	0.0
7:35:00 AM	19	20	0		226	28	240	-	-	1200	-	-	0	0.0
7:40:00 AM	14	20	0		171	21	240	-	-	1200	-	-	0	0.0
7:45:00 AM	18	20	0		219	27	240	-	-	1200	-	-	0	0.0
7:50:00 AM	13	20	0		150	19	240	-	-	1200	-	-	0	0.0
7:55:00 AM	22	20	2	2	260	32	240	250	-	1200	41	-	22	0.1
8:00:00 AM	14	20	0		164	21	240	-	-	1200	-	-	0	0.0
8:05:00 AM	21	20	1	1	246	31	240	250	-	1200	13	-	21	0.0
8:10:00 AM	18	20	0		219	27	240	-	-	1200	-	-	0	0.0
8:15:00 AM	15	20	0		185	23	240	-	-	1200	-	-	0	0.0
8:20:00 AM	14	20	0		164	21	240	-	-	1200	-	-	0	0.0
8:25:00 AM	15	20	0		178	22	240	-	-	1200	-	-	0	0.0
8:30:00 AM	14	20	0		164	21	240	-	-	1200	-	-	0	0.0
8:35:00 AM	22	20	2	2	267	33	240	250	-	1200	55	-	22	0.2
8:40:00 AM	14	20	0		171	21	240	-	-	1200	-	-	0	0.0
8:45:00 AM	17	20	0		205	26	240	-	-	1200	-	-	0	0.0
8:50:00 AM	18	20	0		219	27	240	-	-	1200	-	-	0	0.0
8:55:00 AM	13	20	0		157	20	240	-	-	1200	-	-	0	0.0
9:00:00 AM	13	20	0		157	20	240	-	-	1200	-	-	0	0.0
	504	**720**		**4**		**756**							**64**	**0.36**
	MAX Q (VEH/LN)=		**2**	**MAX RATE (VPH)=**	**267**					**MAX Q (FT/LN)=**	**55**	-	**22**	

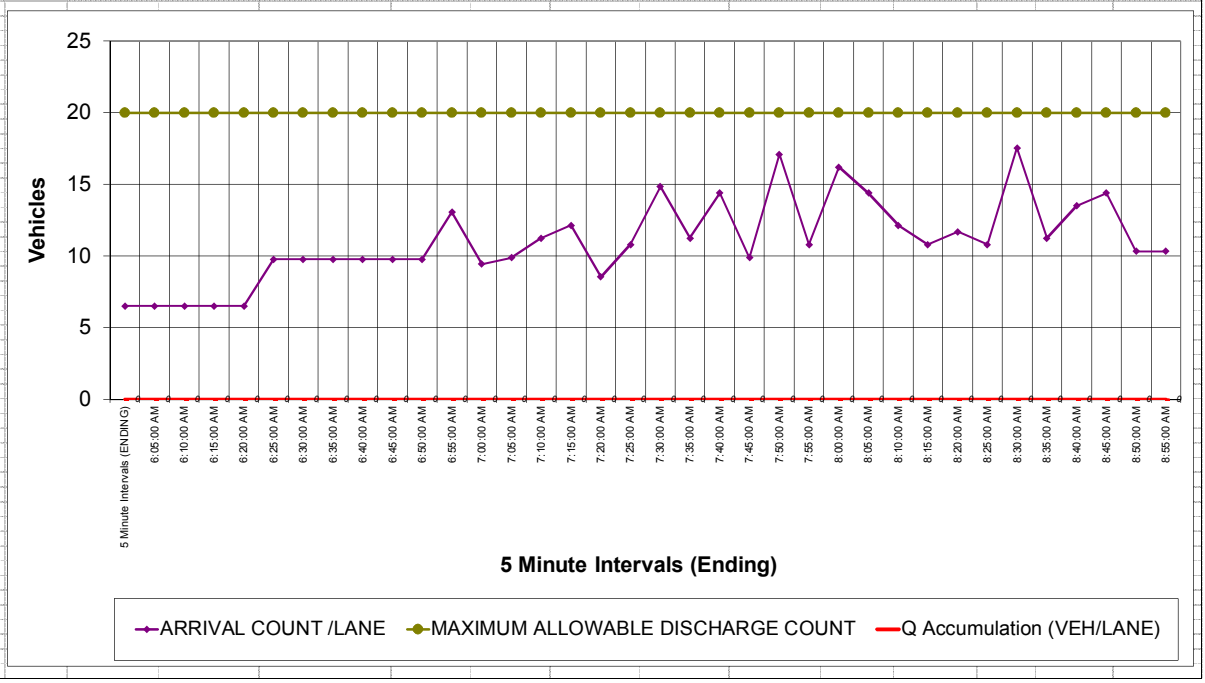
(Min=240, Max=900vph/lane)

	INPUT	Suggested										
						Meter Rate =	**240**				Avg Delay/veh (hr)=	0.006
LANES=	**1.5**	1					4 vps/lane				**Avg Delay/veh (sec)=**	**20**
Ramp Length=	1200	55	FEET =	17	METERS							
Car Length (ft)=	25	8	METERS									



I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ 2035 AM

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
6:05:00 AM	7	20	0		78	10	240	-	-	1200	-	-	0	0.0
6:10:00 AM	7	20	0		78	10	240	-	-	1200	-	-	0	0.0
6:15:00 AM	7	20	0		78	10	240	-	-	1200	-	-	0	0.0
6:20:00 AM	7	20	0		78	10	240	-	-	1200	-	-	0	0.0
6:25:00 AM	7	20	0		78	10	240	-	-	1200	-	-	0	0.0
6:30:00 AM	10	20	0		117	15	240	-	-	1200	-	-	0	0.0
6:35:00 AM	10	20	0		117	15	240	-	-	1200	-	-	0	0.0
6:40:00 AM	10	20	0		117	15	240	-	-	1200	-	-	0	0.0
6:45:00 AM	10	20	0		117	15	240	-	-	1200	-	-	0	0.0
6:50:00 AM	10	20	0		117	15	240	-	-	1200	-	-	0	0.0
6:55:00 AM	10	20	0		117	15	240	-	-	1200	-	-	0	0.0
7:00:00 AM	13	20	0		157	20	240	-	-	1200	-	-	0	0.0
7:05:00 AM	9	20	0		113	14	240	-	-	1200	-	-	0	0.0
7:10:00 AM	10	20	0		119	15	240	-	-	1200	-	-	0	0.0
7:15:00 AM	11	20	0		135	17	240	-	-	1200	-	-	0	0.0
7:20:00 AM	12	20	0		146	18	240	-	-	1200	-	-	0	0.0
7:25:00 AM	9	20	0		103	13	240	-	-	1200	-	-	0	0.0
7:30:00 AM	11	20	0		130	16	240	-	-	1200	-	-	0	0.0
7:35:00 AM	15	20	0		178	22	240	-	-	1200	-	-	0	0.0
7:40:00 AM	11	20	0		135	17	240	-	-	1200	-	-	0	0.0
7:45:00 AM	14	20	0		173	22	240	-	-	1200	-	-	0	0.0
7:50:00 AM	10	20	0		119	15	240	-	-	1200	-	-	0	0.0
7:55:00 AM	17	20	0		205	26	240	-	-	1200	-	-	0	0.0
8:00:00 AM	11	20	0		130	16	240	-	-	1200	-	-	0	0.0
8:05:00 AM	16	20	0		194	24	240	-	-	1200	-	-	0	0.0
8:10:00 AM	14	20	0		173	22	240	-	-	1200	-	-	0	0.0
8:15:00 AM	12	20	0		146	18	240	-	-	1200	-	-	0	0.0
8:20:00 AM	11	20	0		130	16	240	-	-	1200	-	-	0	0.0
8:25:00 AM	12	20	0		140	18	240	-	-	1200	-	-	0	0.0
8:30:00 AM	11	20	0		130	16	240	-	-	1200	-	-	0	0.0
8:35:00 AM	18	20	0		211	26	240	-	-	1200	-	-	0	0.0
8:40:00 AM	11	20	0		135	17	240	-	-	1200	-	-	0	0.0
8:45:00 AM	14	20	0		162	20	240	-	-	1200	-	-	0	0.0
8:50:00 AM	14	20	0		173	22	240	-	-	1200	-	-	0	0.0
8:55:00 AM	10	20	0		124	16	240	-	-	1200	-	-	0	0.0
9:00:00 AM	10	20	0		124	16	240	-	-	1200	-	-	0	0.0
	398	**720**		-		**598**							-	**0.00**
	MAX Q (VEH/LN)=		-	**MAX RATE (VPH)=**	**211**					**MAX Q (FT/LN)=**	-	-	-	
						(Min=240, Max=900vph/lane)								
	INPUT	Suggested				**Meter Rate =**	**240**				Avg Delay/veh (hr)=		#DIV/0!	
LANES=	**1.5**	1					4 vps/lane				**Avg Delay/veh (sec)=**		**#DIV/0!**	
Ramp Length=	1200	-	FEET =	-	METERS									
Car Length (ft)=	25	8	METERS											

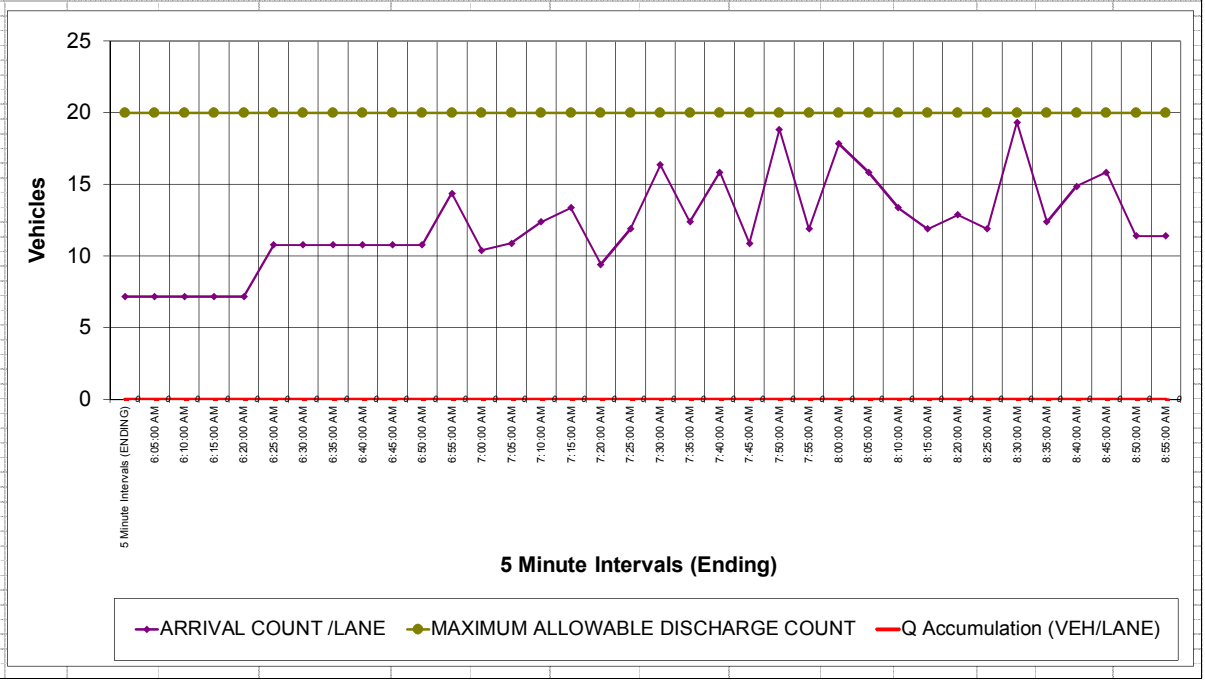


I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ 2035 AM Proj

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
6:05:00 AM	7	20	0		86	11	240	-	-	1200	-	-	0	0.0
6:10:00 AM	7	20	0		86	11	240	-	-	1200	-	-	0	0.0
6:15:00 AM	7	20	0		86	11	240	-	-	1200	-	-	0	0.0
6:20:00 AM	7	20	0		86	11	240	-	-	1200	-	-	0	0.0
6:25:00 AM	7	20	0		86	11	240	-	-	1200	-	-	0	0.0
6:30:00 AM	11	20	0		129	16	240	-	-	1200	-	-	0	0.0
6:35:00 AM	11	20	0		129	16	240	-	-	1200	-	-	0	0.0
6:40:00 AM	11	20	0		129	16	240	-	-	1200	-	-	0	0.0
6:45:00 AM	11	20	0		129	16	240	-	-	1200	-	-	0	0.0
6:50:00 AM	11	20	0		129	16	240	-	-	1200	-	-	0	0.0
6:55:00 AM	11	20	0		129	16	240	-	-	1200	-	-	0	0.0
7:00:00 AM	14	20	0		173	22	240	-	-	1200	-	-	0	0.0
7:05:00 AM	10	20	0		125	16	240	-	-	1200	-	-	0	0.0
7:10:00 AM	11	20	0		131	16	240	-	-	1200	-	-	0	0.0
7:15:00 AM	12	20	0		149	19	240	-	-	1200	-	-	0	0.0
7:20:00 AM	13	20	0		161	20	240	-	-	1200	-	-	0	0.0
7:25:00 AM	9	20	0		113	14	240	-	-	1200	-	-	0	0.0
7:30:00 AM	12	20	0		143	18	240	-	-	1200	-	-	0	0.0
7:35:00 AM	16	20	0		196	25	240	-	-	1200	-	-	0	0.0
7:40:00 AM	12	20	0		149	19	240	-	-	1200	-	-	0	0.0
7:45:00 AM	16	20	0		190	24	240	-	-	1200	-	-	0	0.0
7:50:00 AM	11	20	0		131	16	240	-	-	1200	-	-	0	0.0
7:55:00 AM	19	20	0		226	28	240	-	-	1200	-	-	0	0.0
8:00:00 AM	12	20	0		143	18	240	-	-	1200	-	-	0	0.0
8:05:00 AM	18	20	0		214	27	240	-	-	1200	-	-	0	0.0
8:10:00 AM	16	20	0		190	24	240	-	-	1200	-	-	0	0.0
8:15:00 AM	13	20	0		161	20	240	-	-	1200	-	-	0	0.0
8:20:00 AM	12	20	0		143	18	240	-	-	1200	-	-	0	0.0
8:25:00 AM	13	20	0		155	19	240	-	-	1200	-	-	0	0.0
8:30:00 AM	12	20	0		143	18	240	-	-	1200	-	-	0	0.0
8:35:00 AM	19	20	0		232	29	240	-	-	1200	-	-	0	0.0
8:40:00 AM	12	20	0		149	19	240	-	-	1200	-	-	0	0.0
8:45:00 AM	15	20	0		178	22	240	-	-	1200	-	-	0	0.0
8:50:00 AM	16	20	0		190	24	240	-	-	1200	-	-	0	0.0
8:55:00 AM	11	20	0		137	17	240	-	-	1200	-	-	0	0.0
9:00:00 AM	11	20	0		137	17	240	-	-	1200	-	-	0	0.0
	439	**720**		-		**658**							-	**0.00**
		MAX Q (VEH/LN)=	-	**MAX RATE (VPH)=**	**232**					**MAX Q (FT/LN)=**	-	-	-	

(Min=240, Max=900vph/lane)

	INPUT	Suggested											
						Meter Rate =	**240**				Avg Delay/veh (hr)=		#DIV/0!
LANES=	**1.5**	1					4	vps/lane			**Avg Delay/veh (sec)=**		**#DIV/0!**
Ramp Length=	1200	-	FEET =	-	METERS								
Car Length (ft)=	25	8	METERS										

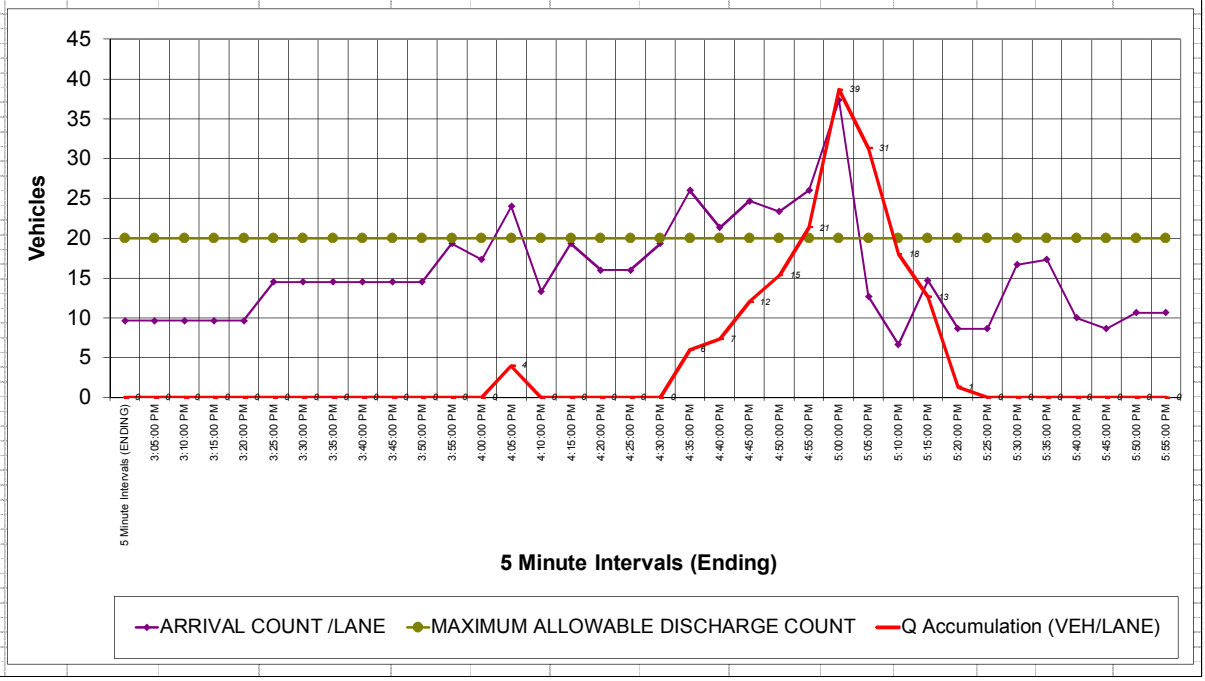


I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ Exist PM

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
3:05:00 PM	10	20	0		116	15	240	-	-	1200	-	-	0	0.0
3:10:00 PM	10	20	0		116	15	240	-	-	1200	-	-	0	0.0
3:15:00 PM	10	20	0		116	15	240	-	-	1200	-	-	0	0.0
3:20:00 PM	10	20	0		116	15	240	-	-	1200	-	-	0	0.0
3:25:00 PM	10	20	0		116	15	240	-	-	1200	-	-	0	0.0
3:30:00 PM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
3:35:00 PM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
3:40:00 PM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
3:45:00 PM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
3:50:00 PM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
3:55:00 PM	15	20	0		174	22	240	-	-	1200	-	-	0	0.0
4:00:00 PM	19	20	0		232	29	240	-	-	1200	-	-	0	0.0
4:05:00 PM	17	20	0		208	26	240	-	-	1200	-	-	0	0.0
4:10:00 PM	24	20	4	4	288	36	240	300	-	1200	100	-	24	0.3
4:15:00 PM	13	20	0		160	20	240	-	-	1200	-	-	0	0.0
4:20:00 PM	19	20	0		232	29	240	-	-	1200	-	-	0	0.0
4:25:00 PM	16	20	0		192	24	240	-	-	1200	-	-	0	0.0
4:30:00 PM	16	20	0		192	24	240	-	-	1200	-	-	0	0.0
4:35:00 PM	19	20	0		232	29	240	-	-	1200	-	-	0	0.0
4:40:00 PM	26	20	6	6	312	39	240	350	-	1200	150	-	26	0.5
4:45:00 PM	21	20	7	1	256	32	240	300	-	1200	183	-	21	0.6
4:50:00 PM	25	20	12	5	296	37	240	400	-	1200	300	-	25	1.0
4:55:00 PM	23	20	15	3	280	35	240	450	-	1200	383	-	23	1.3
5:00:00 PM	26	20	21	6	312	39	240	550	-	1200	533	-	26	1.8
5:05:00 PM	37	20	39	17	448	56	240	900	-	1200	967	-	37	3.2
5:10:00 PM	13	20	31		152	19	240	500	-	1200	783	-	13	2.6
5:15:00 PM	7	20	18		80	10	240	250	-	1200	450	-	7	1.5
5:20:00 PM	15	20	13		176	22	240	300	-	1200	317	-	15	1.1
5:25:00 PM	9	20	1		104	13	240	100	-	1200	33	-	9	0.1
5:30:00 PM	9	20	0		104	13	240	-	-	1200	-	-	0	0.0
5:35:00 PM	17	20	0		200	25	240	-	-	1200	-	-	0	0.0
5:40:00 PM	17	20	0		208	26	240	-	-	1200	-	-	0	0.0
5:45:00 PM	10	20	0		120	15	240	-	-	1200	-	-	0	0.0
5:50:00 PM	9	20	0		104	13	240	-	-	1200	-	-	0	0.0
5:55:00 PM	11	20	0		128	16	240	-	-	1200	-	-	0	0.0
6:00:00 PM	11	20	0		128	16	240	-	-	1200	-	-	0	0.0
	564	**720**		**43**		**846**							**225**	**14.00**
	MAX Q (VEH/LN)=		**39**	**MAX RATE (VPH)=**	**448**					**MAX Q (FT/LN)=**	**967**	-	**37**	

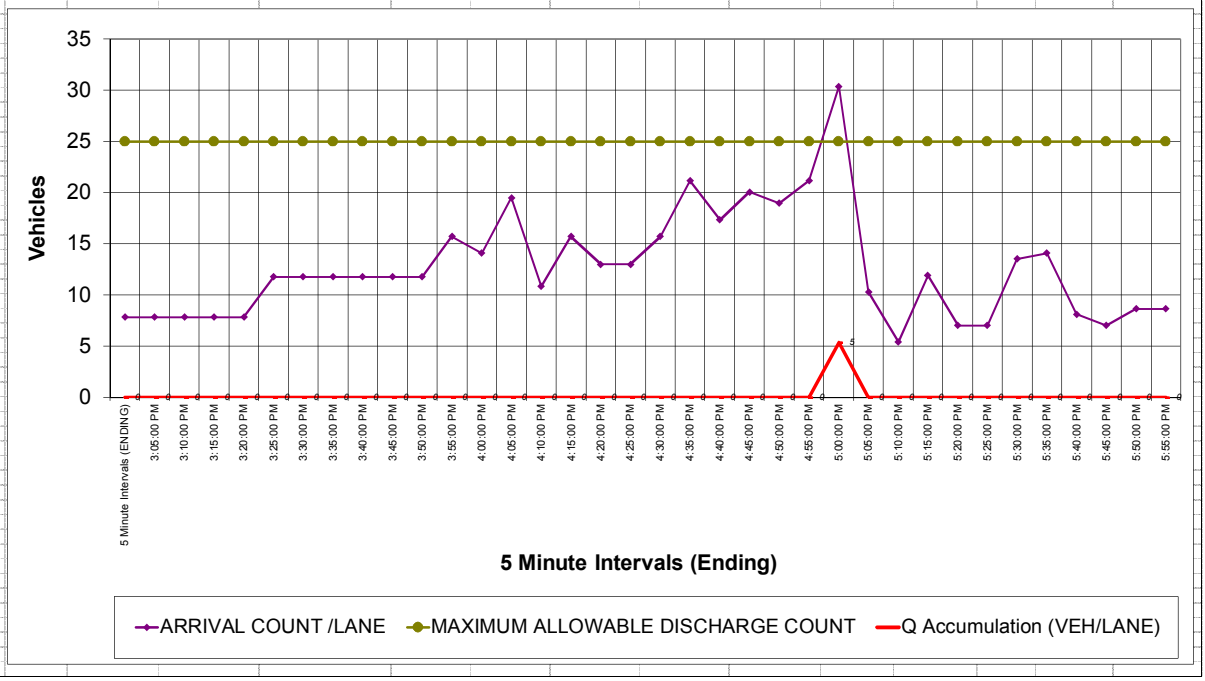
(Min=240, Max=900vph/lane)

	INPUT	Suggested										
						Meter Rate =	**240**				Avg Delay/veh (hr)=	0.062
LANES=	**1.5**	1					4	vps/lane			**Avg Delay/veh (sec)=**	**224**
Ramp Length=	1200	967	FEET =	295	METERS							
Car Length (ft)=	25	8	METERS									



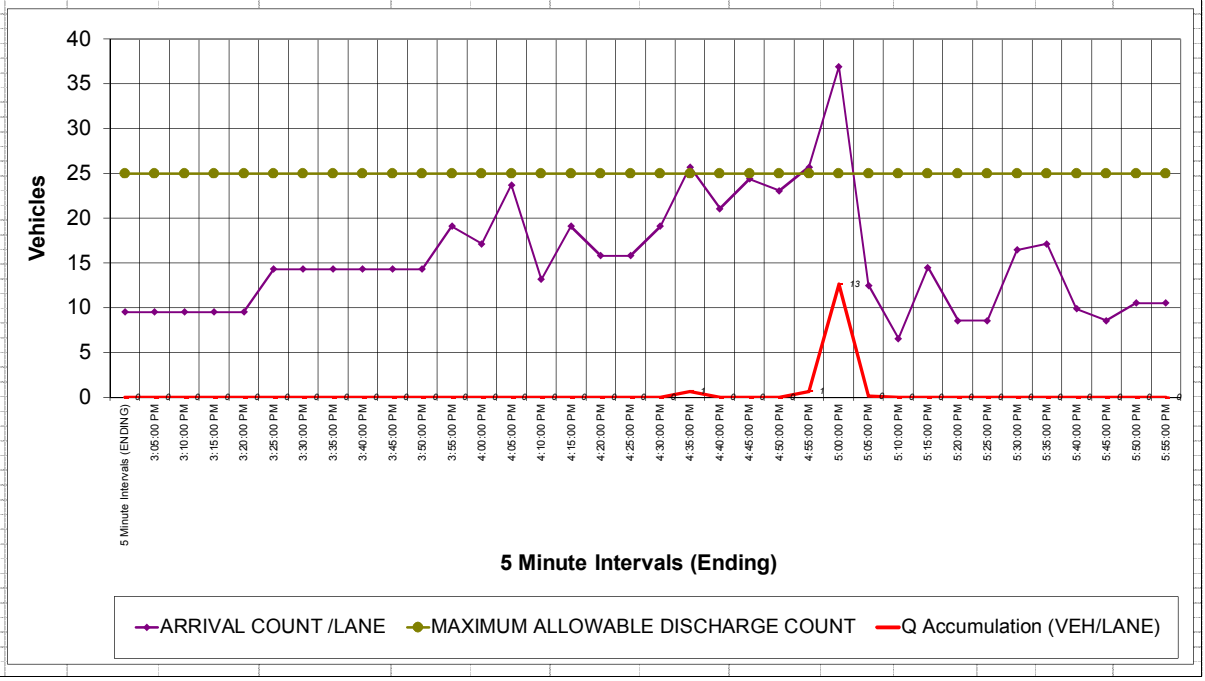
I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ Short PM

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
3:05:00 PM	8	25	0		94	12	300	-	-	1200	-	-	0	0.0
3:10:00 PM	8	25	0		94	12	300	-	-	1200	-	-	0	0.0
3:15:00 PM	8	25	0		94	12	300	-	-	1200	-	-	0	0.0
3:20:00 PM	8	25	0		94	12	300	-	-	1200	-	-	0	0.0
3:25:00 PM	8	25	0		94	12	300	-	-	1200	-	-	0	0.0
3:30:00 PM	12	25	0		142	18	300	-	-	1200	-	-	0	0.0
3:35:00 PM	12	25	0		142	18	300	-	-	1200	-	-	0	0.0
3:40:00 PM	12	25	0		142	18	300	-	-	1200	-	-	0	0.0
3:45:00 PM	12	25	0		142	18	300	-	-	1200	-	-	0	0.0
3:50:00 PM	12	25	0		142	18	300	-	-	1200	-	-	0	0.0
3:55:00 PM	12	25	0		142	18	300	-	-	1200	-	-	0	0.0
4:00:00 PM	16	25	0		189	24	300	-	-	1200	-	-	0	0.0
4:05:00 PM	14	25	0		169	21	300	-	-	1200	-	-	0	0.0
4:10:00 PM	20	25	0		234	29	300	-	-	1200	-	-	0	0.0
4:15:00 PM	11	25	0		130	16	300	-	-	1200	-	-	0	0.0
4:20:00 PM	16	25	0		189	24	300	-	-	1200	-	-	0	0.0
4:25:00 PM	13	25	0		156	20	300	-	-	1200	-	-	0	0.0
4:30:00 PM	13	25	0		156	20	300	-	-	1200	-	-	0	0.0
4:35:00 PM	16	25	0		189	24	300	-	-	1200	-	-	0	0.0
4:40:00 PM	21	25	0		254	32	300	-	-	1200	-	-	0	0.0
4:45:00 PM	17	25	0		208	26	300	-	-	1200	-	-	0	0.0
4:50:00 PM	20	25	0		241	30	300	-	-	1200	-	-	0	0.0
4:55:00 PM	19	25	0		228	28	300	-	-	1200	-	-	0	0.0
5:00:00 PM	21	25	0		254	32	300	-	-	1200	-	-	0	0.0
5:05:00 PM	30	25	5	5	364	46	300	400	-	1200	134	-	30	0.4
5:10:00 PM	10	25	0		124	15	300	-	-	1200	-	-	0	0.0
5:15:00 PM	5	25	0		65	8	300	-	-	1200	-	-	0	0.0
5:20:00 PM	12	25	0		143	18	300	-	-	1200	-	-	0	0.0
5:25:00 PM	7	25	0		85	11	300	-	-	1200	-	-	0	0.0
5:30:00 PM	7	25	0		85	11	300	-	-	1200	-	-	0	0.0
5:35:00 PM	14	25	0		163	20	300	-	-	1200	-	-	0	0.0
5:40:00 PM	14	25	0		169	21	300	-	-	1200	-	-	0	0.0
5:45:00 PM	8	25	0		98	12	300	-	-	1200	-	-	0	0.0
5:50:00 PM	7	25	0		85	11	300	-	-	1200	-	-	0	0.0
5:55:00 PM	9	25	0		104	13	300	-	-	1200	-	-	0	0.0
6:00:00 PM	9	25	0		104	13	300	-	-	1200	-	-	0	0.0
	459	**900**		**5**		**688**							**30**	**0.45**
		MAX Q (VEH/LN)=	**5**	**MAX RATE (VPH)=**	**364**					**MAX Q (FT/LN)=**	**134**	-	**30**	
						(Min=240, Max=900vph/lane)								
	INPUT	Suggested				**Meter Rate =**	**300**				Avg Delay/veh (hr)=		0.015	
LANES=	**1.5**	1									**Avg Delay/veh (sec)=**		**53**	
Ramp Length=	1200	134	FEET =	41	METERS									
Car Length (ft)=	25	8	METERS											



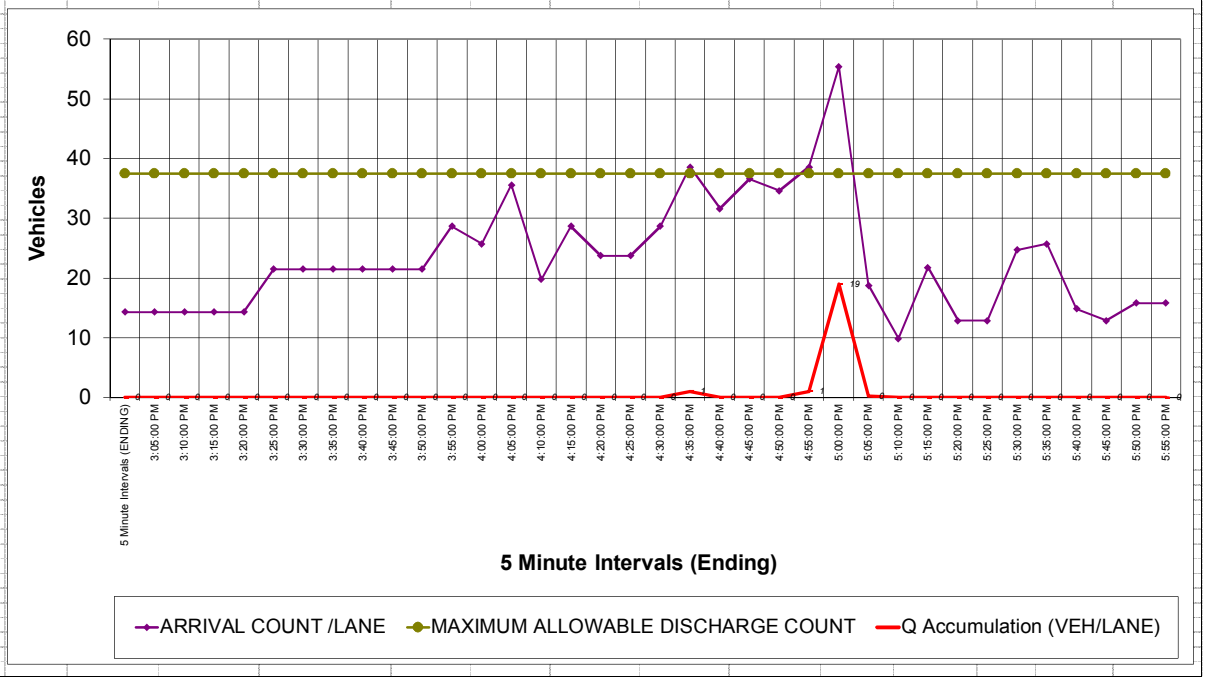
I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ Short PM Proj

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
3:05:00 PM	10	25	0		115	14	300	-	-	1200	-	-	0	0.0
3:10:00 PM	10	25	0		115	14	300	-	-	1200	-	-	0	0.0
3:15:00 PM	10	25	0		115	14	300	-	-	1200	-	-	0	0.0
3:20:00 PM	10	25	0		115	14	300	-	-	1200	-	-	0	0.0
3:25:00 PM	10	25	0		115	14	300	-	-	1200	-	-	0	0.0
3:30:00 PM	14	25	0		172	22	300	-	-	1200	-	-	0	0.0
3:35:00 PM	14	25	0		172	22	300	-	-	1200	-	-	0	0.0
3:40:00 PM	14	25	0		172	22	300	-	-	1200	-	-	0	0.0
3:45:00 PM	14	25	0		172	22	300	-	-	1200	-	-	0	0.0
3:50:00 PM	14	25	0		172	22	300	-	-	1200	-	-	0	0.0
3:55:00 PM	14	25	0		172	22	300	-	-	1200	-	-	0	0.0
4:00:00 PM	19	25	0		229	29	300	-	-	1200	-	-	0	0.0
4:05:00 PM	17	25	0		206	26	300	-	-	1200	-	-	0	0.0
4:10:00 PM	24	25	0		285	36	300	-	-	1200	-	-	0	0.0
4:15:00 PM	13	25	0		158	20	300	-	-	1200	-	-	0	0.0
4:20:00 PM	19	25	0		229	29	300	-	-	1200	-	-	0	0.0
4:25:00 PM	16	25	0		190	24	300	-	-	1200	-	-	0	0.0
4:30:00 PM	16	25	0		190	24	300	-	-	1200	-	-	0	0.0
4:35:00 PM	19	25	0		229	29	300	-	-	1200	-	-	0	0.0
4:40:00 PM	26	25	1	1	309	39	300	300	-	1200	18	-	26	0.1
4:45:00 PM	21	25	0		253	32	300	-	-	1200	-	-	0	0.0
4:50:00 PM	24	25	0		293	37	300	-	-	1200	-	-	0	0.0
4:55:00 PM	23	25	0		277	35	300	-	-	1200	-	-	0	0.0
5:00:00 PM	26	25	1	1	309	39	300	300	-	1200	18	-	26	0.1
5:05:00 PM	37	25	13	12	443	55	300	550	-	1200	316	-	37	1.1
5:10:00 PM	13	25	0		150	19	300	150	-	1200	4	-	13	0.0
5:15:00 PM	7	25	0		79	10	300	-	-	1200	-	-	0	0.0
5:20:00 PM	15	25	0		174	22	300	-	-	1200	-	-	0	0.0
5:25:00 PM	9	25	0		103	13	300	-	-	1200	-	-	0	0.0
5:30:00 PM	9	25	0		103	13	300	-	-	1200	-	-	0	0.0
5:35:00 PM	16	25	0		198	25	300	-	-	1200	-	-	0	0.0
5:40:00 PM	17	25	0		206	26	300	-	-	1200	-	-	0	0.0
5:45:00 PM	10	25	0		119	15	300	-	-	1200	-	-	0	0.0
5:50:00 PM	9	25	0		103	13	300	-	-	1200	-	-	0	0.0
5:55:00 PM	11	25	0		127	16	300	-	-	1200	-	-	0	0.0
6:00:00 PM	11	25	0		127	16	300	-	-	1200	-	-	0	0.0
	558	**900**		**13**		**837**							**101**	**1.18**
	MAX Q (VEH/LN)=		**13**	**MAX RATE (VPH)=**	**443**					**MAX Q (FT/LN)=**	**316**	-	**37**	
						(Min=240, Max=900vph/lane)								
	INPUT	Suggested				**Meter Rate =**	**300**				Avg Delay/veh (hr)=		0.012	
LANES=	**1.5**	1									**Avg Delay/veh (sec)=**		**42**	
Ramp Length=	1200	316	FEET =	96	METERS									
Car Length (ft)=	25	8	METERS											



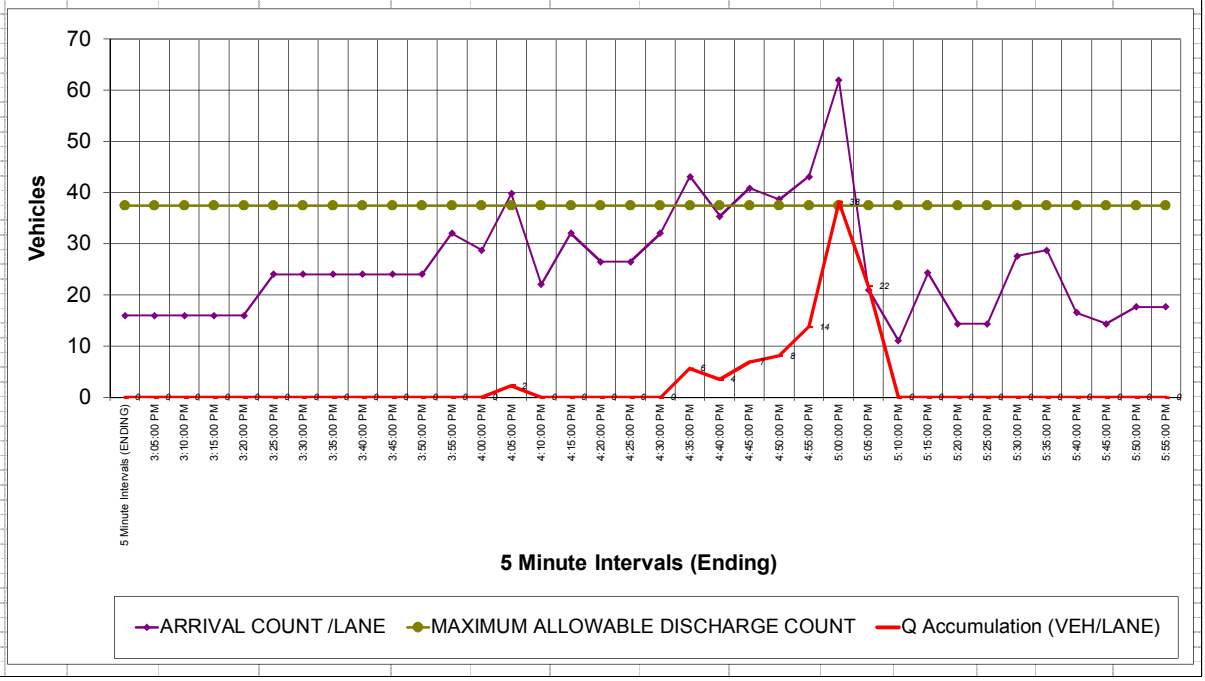
I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ 2035 PM

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
3:05:00 PM	14	38	0		172	22	450	-	-	1200	-	-	0	0.0
3:10:00 PM	14	38	0		172	22	450	-	-	1200	-	-	0	0.0
3:15:00 PM	14	38	0		172	22	450	-	-	1200	-	-	0	0.0
3:20:00 PM	14	38	0		172	22	450	-	-	1200	-	-	0	0.0
3:25:00 PM	14	38	0		172	22	450	-	-	1200	-	-	0	0.0
3:30:00 PM	22	38	0		258	32	450	-	-	1200	-	-	0	0.0
3:35:00 PM	22	38	0		258	32	450	-	-	1200	-	-	0	0.0
3:40:00 PM	22	38	0		258	32	450	-	-	1200	-	-	0	0.0
3:45:00 PM	22	38	0		258	32	450	-	-	1200	-	-	0	0.0
3:50:00 PM	22	38	0		258	32	450	-	-	1200	-	-	0	0.0
3:55:00 PM	22	38	0		258	32	450	-	-	1200	-	-	0	0.0
4:00:00 PM	29	38	0		344	43	450	-	-	1200	-	-	0	0.0
4:05:00 PM	26	38	0		309	39	450	-	-	1200	-	-	0	0.0
4:10:00 PM	36	38	0		427	53	450	-	-	1200	-	-	0	0.0
4:15:00 PM	20	38	0		237	30	450	-	-	1200	-	-	0	0.0
4:20:00 PM	29	38	0		344	43	450	-	-	1200	-	-	0	0.0
4:25:00 PM	24	38	0		285	36	450	-	-	1200	-	-	0	0.0
4:30:00 PM	24	38	0		285	36	450	-	-	1200	-	-	0	0.0
4:35:00 PM	29	38	0		344	43	450	-	-	1200	-	-	0	0.0
4:40:00 PM	39	38	1	1	463	58	450	450	-	1200	27	-	39	0.1
4:45:00 PM	32	38	0		380	47	450	-	-	1200	-	-	0	0.0
4:50:00 PM	37	38	0		439	55	450	-	-	1200	-	-	0	0.0
4:55:00 PM	35	38	0		415	52	450	-	-	1200	-	-	0	0.0
5:00:00 PM	39	38	1	1	463	58	450	450	-	1200	27	-	39	0.1
5:05:00 PM	55	38	19	18	664	83	450	850	-	1200	473	-	55	1.6
5:10:00 PM	19	38	0		225	28	450	200	-	1200	6	-	19	0.0
5:15:00 PM	10	38	0		119	15	450	-	-	1200	-	-	0	0.0
5:20:00 PM	22	38	0		261	33	450	-	-	1200	-	-	0	0.0
5:25:00 PM	13	38	0		154	19	450	-	-	1200	-	-	0	0.0
5:30:00 PM	13	38	0		154	19	450	-	-	1200	-	-	0	0.0
5:35:00 PM	25	38	0		297	37	450	-	-	1200	-	-	0	0.0
5:40:00 PM	26	38	0		309	39	450	-	-	1200	-	-	0	0.0
5:45:00 PM	15	38	0		178	22	450	-	-	1200	-	-	0	0.0
5:50:00 PM	13	38	0		154	19	450	-	-	1200	-	-	0	0.0
5:55:00 PM	16	38	0		190	24	450	-	-	1200	-	-	0	0.0
6:00:00 PM	16	38	0		190	24	450	-	-	1200	-	-	0	0.0
	837	**1,350**		**20**		**1,255**							**151**	**1.77**
	MAX Q (VEH/LN)=		**19**	**MAX RATE (VPH)=**	**664**					**MAX Q (FT/LN)=**	**473**	-	**55**	
						(Min=240, Max=900vph/lane)								
	INPUT	Suggested				**Meter Rate =**	**450**				Avg Delay/veh (hr)=		0.012	
LANES=	**1.5**	2									**Avg Delay/veh (sec)=**		**42**	
Ramp Length=	1200	473	FEET =	144	METERS									
Car Length (ft)=	25	8	METERS											



I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ 2035 PM Proj

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
3:05:00 PM	16	38	0		192	24	450	-	-	1200	-	-	0	0.0
3:10:00 PM	16	38	0		192	24	450	-	-	1200	-	-	0	0.0
3:15:00 PM	16	38	0		192	24	450	-	-	1200	-	-	0	0.0
3:20:00 PM	16	38	0		192	24	450	-	-	1200	-	-	0	0.0
3:25:00 PM	16	38	0		192	24	450	-	-	1200	-	-	0	0.0
3:30:00 PM	24	38	0		289	36	450	-	-	1200	-	-	0	0.0
3:35:00 PM	24	38	0		289	36	450	-	-	1200	-	-	0	0.0
3:40:00 PM	24	38	0		289	36	450	-	-	1200	-	-	0	0.0
3:45:00 PM	24	38	0		289	36	450	-	-	1200	-	-	0	0.0
3:50:00 PM	24	38	0		289	36	450	-	-	1200	-	-	0	0.0
3:55:00 PM	24	38	0		289	36	450	-	-	1200	-	-	0	0.0
4:00:00 PM	32	38	0		385	48	450	-	-	1200	-	-	0	0.0
4:05:00 PM	29	38	0		345	43	450	-	-	1200	-	-	0	0.0
4:10:00 PM	40	38	2	2	478	60	450	500	-	1200	58	-	40	0.2
4:15:00 PM	22	38	0		265	33	450	-	-	1200	-	-	0	0.0
4:20:00 PM	32	38	0		385	48	450	-	-	1200	-	-	0	0.0
4:25:00 PM	27	38	0		318	40	450	-	-	1200	-	-	0	0.0
4:30:00 PM	27	38	0		318	40	450	-	-	1200	-	-	0	0.0
4:35:00 PM	32	38	0		385	48	450	-	-	1200	-	-	0	0.0
4:40:00 PM	43	38	6	6	518	65	450	550	-	1200	141	-	43	0.5
4:45:00 PM	35	38	4		425	53	450	450	-	1200	88	-	35	0.3
4:50:00 PM	41	38	7	3	491	61	450	550	-	1200	173	-	41	0.6
4:55:00 PM	39	38	8	1	464	58	450	550	-	1200	203	-	39	0.7
5:00:00 PM	43	38	14	6	518	65	450	650	-	1200	344	-	43	1.1
5:05:00 PM	62	38	38	24	743	93	450	1200	-	1200	954	-	62	3.2
5:10:00 PM	21	38	22		252	32	450	500	-	1200	542	-	21	1.8
5:15:00 PM	11	38	0		133	17	450	-	-	1200	-	-	0	0.0
5:20:00 PM	24	38	0		292	36	450	-	-	1200	-	-	0	0.0
5:25:00 PM	14	38	0		173	22	450	-	-	1200	-	-	0	0.0
5:30:00 PM	14	38	0		173	22	450	-	-	1200	-	-	0	0.0
5:35:00 PM	28	38	0		332	41	450	-	-	1200	-	-	0	0.0
5:40:00 PM	29	38	0		345	43	450	-	-	1200	-	-	0	0.0
5:45:00 PM	17	38	0		199	25	450	-	-	1200	-	-	0	0.0
5:50:00 PM	14	38	0		173	22	450	-	-	1200	-	-	0	0.0
5:55:00 PM	18	38	0		212	27	450	-	-	1200	-	-	0	0.0
6:00:00 PM	18	38	0		212	27	450	-	-	1200	-	-	0	0.0
	936	**1,350**		**43**		**1,403**							**324**	**8.34**
		MAX Q (VEH/LN)=	**38**	**MAX RATE (VPH)=**	**743**					**MAX Q (FT/LN)=**	**954**	-	**62**	
						(Min=240, Max=900vph/lane)								
	INPUT	Suggested				**Meter Rate =**	**450**				Avg Delay/veh (hr)=		0.026	
LANES=	**1.5**	2									**Avg Delay/veh (sec)=**		**93**	
Ramp Length=	1200	954	FEET =	291	METERS									
Car Length (ft)=	25	8	METERS											

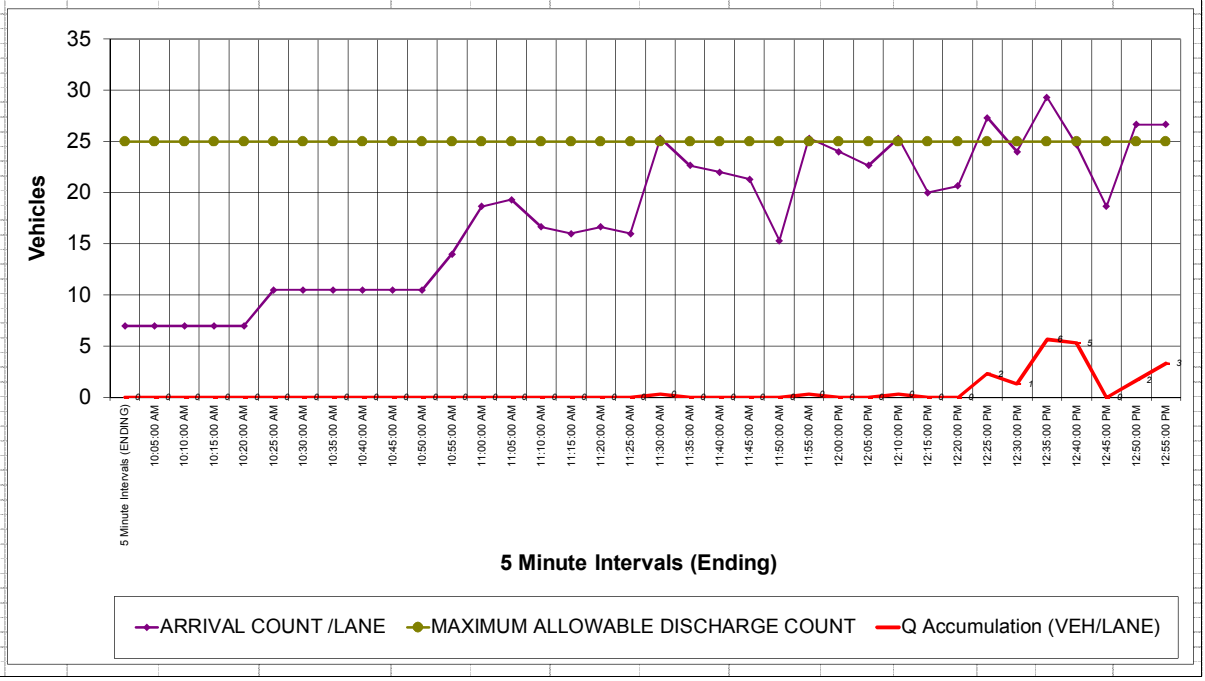


I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ Exist Sat

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
10:05:00 AM	7	25	0		84	11	300	-	-	1200	-	-	0	0.0
10:10:00 AM	7	25	0		84	11	300	-	-	1200	-	-	0	0.0
10:15:00 AM	7	25	0		84	11	300	-	-	1200	-	-	0	0.0
10:20:00 AM	7	25	0		84	11	300	-	-	1200	-	-	0	0.0
10:25:00 AM	7	25	0		84	11	300	-	-	1200	-	-	0	0.0
10:30:00 AM	11	25	0		126	16	300	-	-	1200	-	-	0	0.0
10:35:00 AM	11	25	0		126	16	300	-	-	1200	-	-	0	0.0
10:40:00 AM	11	25	0		126	16	300	-	-	1200	-	-	0	0.0
10:45:00 AM	11	25	0		126	16	300	-	-	1200	-	-	0	0.0
10:50:00 AM	11	25	0		126	16	300	-	-	1200	-	-	0	0.0
10:55:00 AM	11	25	0		126	16	300	-	-	1200	-	-	0	0.0
11:00:00 AM	14	25	0		168	21	300	-	-	1200	-	-	0	0.0
11:05:00 AM	19	25	0		224	28	300	-	-	1200	-	-	0	0.0
11:10:00 AM	19	25	0		232	29	300	-	-	1200	-	-	0	0.0
11:15:00 AM	17	25	0		200	25	300	-	-	1200	-	-	0	0.0
11:20:00 AM	16	25	0		192	24	300	-	-	1200	-	-	0	0.0
11:25:00 AM	17	25	0		200	25	300	-	-	1200	-	-	0	0.0
11:30:00 AM	16	25	0		192	24	300	-	-	1200	-	-	0	0.0
11:35:00 AM	25	25	0	0	304	38	300	300	-	1200	8	-	25	0.0
11:40:00 AM	23	25	0		272	34	300	-	-	1200	-	-	0	0.0
11:45:00 AM	22	25	0		264	33	300	-	-	1200	-	-	0	0.0
11:50:00 AM	21	25	0		256	32	300	-	-	1200	-	-	0	0.0
11:55:00 AM	15	25	0		184	23	300	-	-	1200	-	-	0	0.0
12:00:00 PM	25	25	0	0	304	38	300	300	-	1200	8	-	25	0.0
12:05:00 PM	24	25	0		288	36	300	-	-	1200	-	-	0	0.0
12:10:00 PM	23	25	0		272	34	300	-	-	1200	-	-	0	0.0
12:15:00 PM	25	25	0	0	304	38	300	300	-	1200	8	-	25	0.0
12:20:00 PM	20	25	0		240	30	300	-	-	1200	-	-	0	0.0
12:25:00 PM	21	25	0		248	31	300	-	-	1200	-	-	0	0.0
12:30:00 PM	27	25	2	2	328	41	300	350	-	1200	58	-	27	0.2
12:35:00 PM	24	25	1		288	36	300	300	-	1200	33	-	24	0.1
12:40:00 PM	29	25	6	4	352	44	300	400	-	1200	142	-	29	0.5
12:45:00 PM	25	25	5		296	37	300	350	-	1200	133	-	25	0.4
12:50:00 PM	19	25	0		224	28	300	-	-	1200	-	-	0	0.0
12:55:00 PM	27	25	2	2	320	40	300	300	-	1200	42	-	27	0.1
1:00:00 PM	27	25	3	2	320	40	300	350	-	1200	83	-	27	0.3
	637	**900**		**11**		**956**							**235**	**1.72**
	MAX Q (VEH/LN)=		**6**	**MAX RATE (VPH)=**	**352**					**MAX Q (FT/LN)=**	**142**	-	**29**	

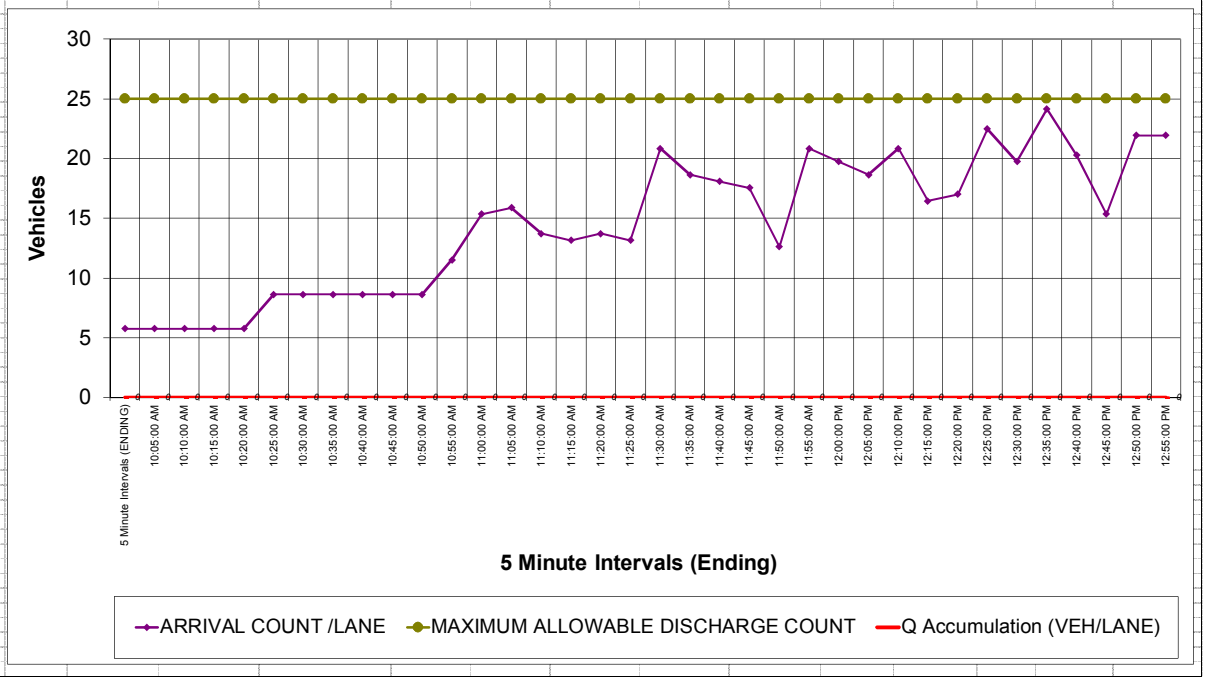
(Min=240, Max=900vph/lane)

	INPUT	Suggested												
						Meter Rate =	**300**							
LANES=	**1.5**	1										**Avg Delay/veh (sec)=**	**26**	
Ramp Length=	1200	142	FEET =	43	METERS							Avg Delay/veh (hr)=	0.007	
Car Length (ft)=	25	8	METERS											



I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ Short Sat

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
10:05:00 AM	6	25	0		69	9	300	-	-	1200	-	-	0	0.0
10:10:00 AM	6	25	0		69	9	300	-	-	1200	-	-	0	0.0
10:15:00 AM	6	25	0		69	9	300	-	-	1200	-	-	0	0.0
10:20:00 AM	6	25	0		69	9	300	-	-	1200	-	-	0	0.0
10:25:00 AM	6	25	0		69	9	300	-	-	1200	-	-	0	0.0
10:30:00 AM	9	25	0		104	13	300	-	-	1200	-	-	0	0.0
10:35:00 AM	9	25	0		104	13	300	-	-	1200	-	-	0	0.0
10:40:00 AM	9	25	0		104	13	300	-	-	1200	-	-	0	0.0
10:45:00 AM	9	25	0		104	13	300	-	-	1200	-	-	0	0.0
10:50:00 AM	9	25	0		104	13	300	-	-	1200	-	-	0	0.0
10:55:00 AM	9	25	0		104	13	300	-	-	1200	-	-	0	0.0
11:00:00 AM	12	25	0		138	17	300	-	-	1200	-	-	0	0.0
11:05:00 AM	15	25	0		184	23	300	-	-	1200	-	-	0	0.0
11:10:00 AM	16	25	0		191	24	300	-	-	1200	-	-	0	0.0
11:15:00 AM	14	25	0		165	21	300	-	-	1200	-	-	0	0.0
11:20:00 AM	13	25	0		158	20	300	-	-	1200	-	-	0	0.0
11:25:00 AM	14	25	0		165	21	300	-	-	1200	-	-	0	0.0
11:30:00 AM	13	25	0		158	20	300	-	-	1200	-	-	0	0.0
11:35:00 AM	21	25	0		250	31	300	-	-	1200	-	-	0	0.0
11:40:00 AM	19	25	0		224	28	300	-	-	1200	-	-	0	0.0
11:45:00 AM	18	25	0		217	27	300	-	-	1200	-	-	0	0.0
11:50:00 AM	18	25	0		211	26	300	-	-	1200	-	-	0	0.0
11:55:00 AM	13	25	0		151	19	300	-	-	1200	-	-	0	0.0
12:00:00 PM	21	25	0		250	31	300	-	-	1200	-	-	0	0.0
12:05:00 PM	20	25	0		237	30	300	-	-	1200	-	-	0	0.0
12:10:00 PM	19	25	0		224	28	300	-	-	1200	-	-	0	0.0
12:15:00 PM	21	25	0		250	31	300	-	-	1200	-	-	0	0.0
12:20:00 PM	16	25	0		197	25	300	-	-	1200	-	-	0	0.0
12:25:00 PM	17	25	0		204	26	300	-	-	1200	-	-	0	0.0
12:30:00 PM	22	25	0		270	34	300	-	-	1200	-	-	0	0.0
12:35:00 PM	20	25	0		237	30	300	-	-	1200	-	-	0	0.0
12:40:00 PM	24	25	0		290	36	300	-	-	1200	-	-	0	0.0
12:45:00 PM	20	25	0		244	30	300	-	-	1200	-	-	0	0.0
12:50:00 PM	15	25	0		184	23	300	-	-	1200	-	-	0	0.0
12:55:00 PM	22	25	0		263	33	300	-	-	1200	-	-	0	0.0
1:00:00 PM	22	25	0		263	33	300	-	-	1200	-	-	0	0.0
	524	**900**		-		**787**							-	**0.00**
	MAX Q (VEH/LN)=		-	**MAX RATE (VPH)=**	**290**					**MAX Q (FT/LN)=**	-	-	-	
						(Min=240, Max=900vph/lane)								
	INPUT	Suggested				**Meter Rate =**	**300**				Avg Delay/veh (hr)=		#DIV/0!	
LANES=	**1.5**	1					5 vps/lane				**Avg Delay/veh (sec)=**		**#DIV/0!**	
Ramp Length=	1200	-	FEET =	-	METERS									
Car Length (ft)=	25	8	METERS											

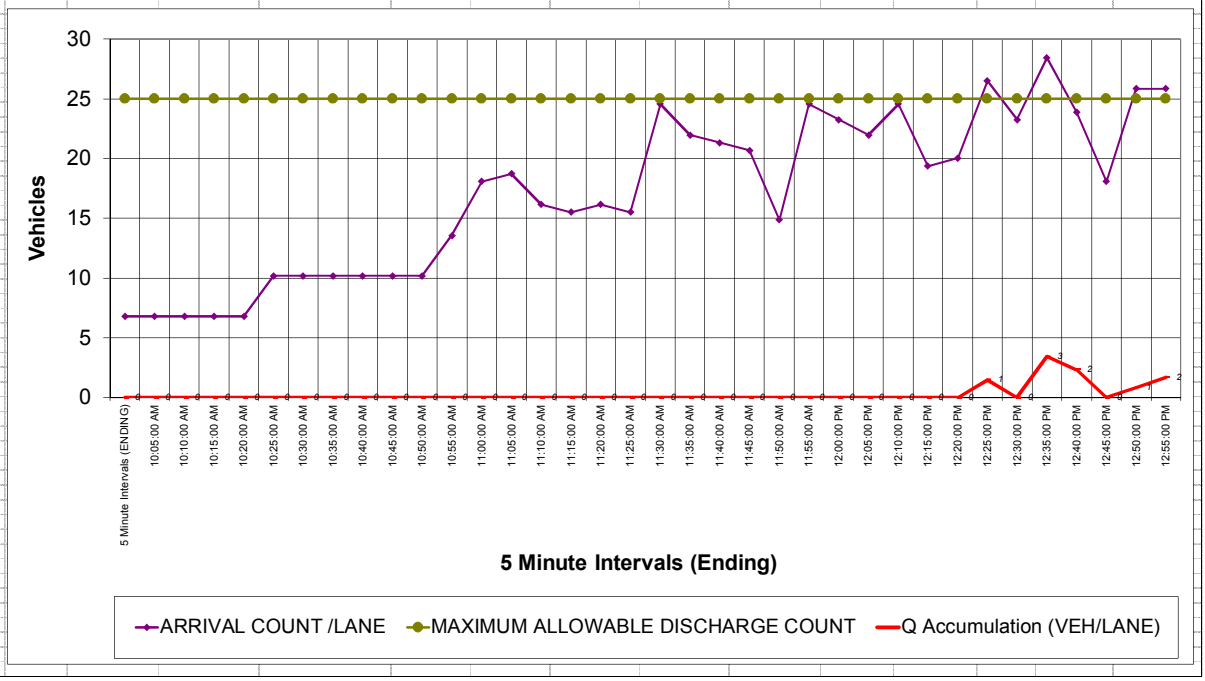


I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ Short Sat Proj

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
10:05:00 AM	7	25	0		81	10	300	-	-	1200	-	-	0	0.0
10:10:00 AM	7	25	0		81	10	300	-	-	1200	-	-	0	0.0
10:15:00 AM	7	25	0		81	10	300	-	-	1200	-	-	0	0.0
10:20:00 AM	7	25	0		81	10	300	-	-	1200	-	-	0	0.0
10:25:00 AM	7	25	0		81	10	300	-	-	1200	-	-	0	0.0
10:30:00 AM	10	25	0		122	15	300	-	-	1200	-	-	0	0.0
10:35:00 AM	10	25	0		122	15	300	-	-	1200	-	-	0	0.0
10:40:00 AM	10	25	0		122	15	300	-	-	1200	-	-	0	0.0
10:45:00 AM	10	25	0		122	15	300	-	-	1200	-	-	0	0.0
10:50:00 AM	10	25	0		122	15	300	-	-	1200	-	-	0	0.0
10:55:00 AM	10	25	0		122	15	300	-	-	1200	-	-	0	0.0
11:00:00 AM	14	25	0		163	20	300	-	-	1200	-	-	0	0.0
11:05:00 AM	18	25	0		217	27	300	-	-	1200	-	-	0	0.0
11:10:00 AM	19	25	0		225	28	300	-	-	1200	-	-	0	0.0
11:15:00 AM	16	25	0		194	24	300	-	-	1200	-	-	0	0.0
11:20:00 AM	16	25	0		186	23	300	-	-	1200	-	-	0	0.0
11:25:00 AM	16	25	0		194	24	300	-	-	1200	-	-	0	0.0
11:30:00 AM	16	25	0		186	23	300	-	-	1200	-	-	0	0.0
11:35:00 AM	25	25	0		295	37	300	-	-	1200	-	-	0	0.0
11:40:00 AM	22	25	0		264	33	300	-	-	1200	-	-	0	0.0
11:45:00 AM	21	25	0		256	32	300	-	-	1200	-	-	0	0.0
11:50:00 AM	21	25	0		248	31	300	-	-	1200	-	-	0	0.0
11:55:00 AM	15	25	0		178	22	300	-	-	1200	-	-	0	0.0
12:00:00 PM	25	25	0		295	37	300	-	-	1200	-	-	0	0.0
12:05:00 PM	23	25	0		279	35	300	-	-	1200	-	-	0	0.0
12:10:00 PM	22	25	0		264	33	300	-	-	1200	-	-	0	0.0
12:15:00 PM	25	25	0		295	37	300	-	-	1200	-	-	0	0.0
12:20:00 PM	19	25	0		233	29	300	-	-	1200	-	-	0	0.0
12:25:00 PM	20	25	0		240	30	300	-	-	1200	-	-	0	0.0
12:30:00 PM	26	25	1	1	318	40	300	300	-	1200	37	-	26	0.1
12:35:00 PM	23	25	0		279	35	300	-	-	1200	-	-	0	0.0
12:40:00 PM	28	25	3	3	341	43	300	350	-	1200	86	-	28	0.3
12:45:00 PM	24	25	2		287	36	300	300	-	1200	59	-	24	0.2
12:50:00 PM	18	25	0		217	27	300	-	-	1200	-	-	0	0.0
12:55:00 PM	26	25	1	1	310	39	300	300	-	1200	21	-	26	0.1
1:00:00 PM	26	25	2	1	310	39	300	300	-	1200	43	-	26	0.1
	618	**900**		**7**		**927**							**131**	**0.82**
		MAX Q (VEH/LN)=	**3**	**MAX RATE (VPH)=**	**341**					**MAX Q (FT/LN)=**	**86**	-	**28**	

(Min=240, Max=900vph/lane)

	INPUT	Suggested											
						Meter Rate =	**300**					Avg Delay/veh (hr)=	0.006
LANES=	**1.5**	1					5 vps/lane					**Avg Delay/veh (sec)=**	**23**
Ramp Length=	1200	86	FEET =	26	METERS								
Car Length (ft)=	25	8	METERS										

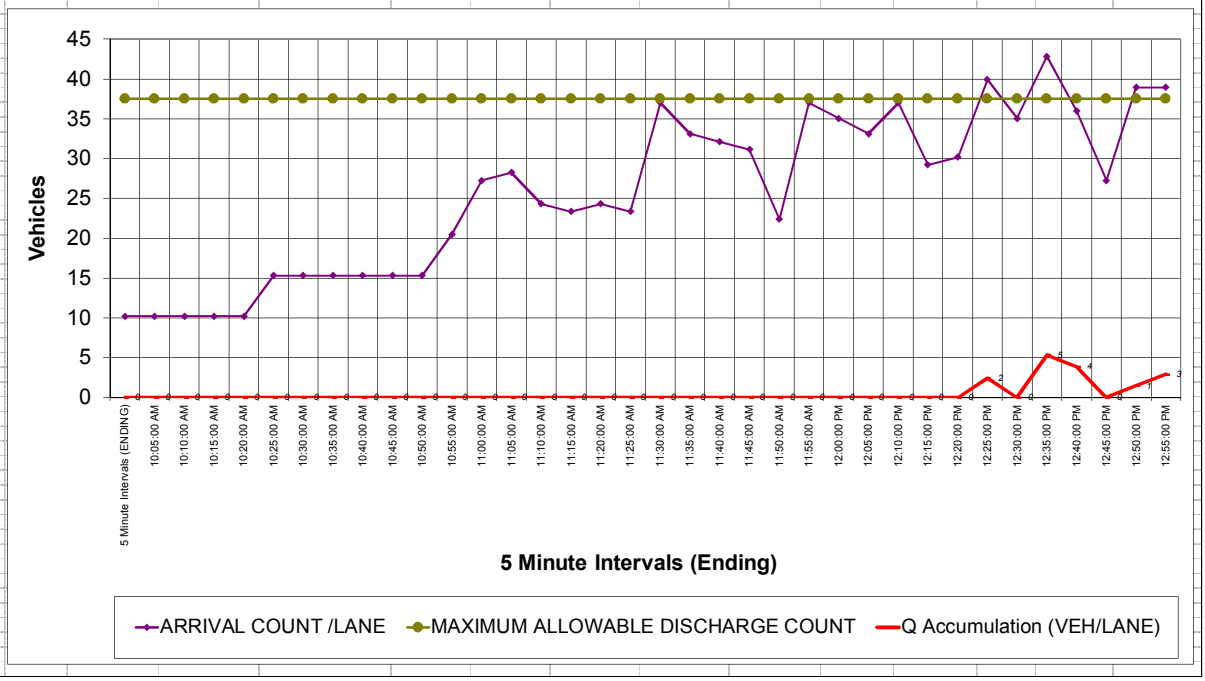


I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ 2035 Sat

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
10:05:00 AM	10	38	0		123	15	450	-	-	1200	-	-	0	0.0
10:10:00 AM	10	38	0		123	15	450	-	-	1200	-	-	0	0.0
10:15:00 AM	10	38	0		123	15	450	-	-	1200	-	-	0	0.0
10:20:00 AM	10	38	0		123	15	450	-	-	1200	-	-	0	0.0
10:25:00 AM	10	38	0		123	15	450	-	-	1200	-	-	0	0.0
10:30:00 AM	15	38	0		184	23	450	-	-	1200	-	-	0	0.0
10:35:00 AM	15	38	0		184	23	450	-	-	1200	-	-	0	0.0
10:40:00 AM	15	38	0		184	23	450	-	-	1200	-	-	0	0.0
10:45:00 AM	15	38	0		184	23	450	-	-	1200	-	-	0	0.0
10:50:00 AM	15	38	0		184	23	450	-	-	1200	-	-	0	0.0
10:55:00 AM	15	38	0		184	23	450	-	-	1200	-	-	0	0.0
11:00:00 AM	20	38	0		245	31	450	-	-	1200	-	-	0	0.0
11:05:00 AM	27	38	0		327	41	450	-	-	1200	-	-	0	0.0
11:10:00 AM	28	38	0		339	42	450	-	-	1200	-	-	0	0.0
11:15:00 AM	24	38	0		292	37	450	-	-	1200	-	-	0	0.0
11:20:00 AM	23	38	0		280	35	450	-	-	1200	-	-	0	0.0
11:25:00 AM	24	38	0		292	37	450	-	-	1200	-	-	0	0.0
11:30:00 AM	23	38	0		280	35	450	-	-	1200	-	-	0	0.0
11:35:00 AM	37	38	0		444	55	450	-	-	1200	-	-	0	0.0
11:40:00 AM	33	38	0		397	50	450	-	-	1200	-	-	0	0.0
11:45:00 AM	32	38	0		386	48	450	-	-	1200	-	-	0	0.0
11:50:00 AM	31	38	0		374	47	450	-	-	1200	-	-	0	0.0
11:55:00 AM	22	38	0		269	34	450	-	-	1200	-	-	0	0.0
12:00:00 PM	37	38	0		444	55	450	-	-	1200	-	-	0	0.0
12:05:00 PM	35	38	0		421	53	450	-	-	1200	-	-	0	0.0
12:10:00 PM	33	38	0		397	50	450	-	-	1200	-	-	0	0.0
12:15:00 PM	37	38	0		444	55	450	-	-	1200	-	-	0	0.0
12:20:00 PM	29	38	0		351	44	450	-	-	1200	-	-	0	0.0
12:25:00 PM	30	38	0		362	45	450	-	-	1200	-	-	0	0.0
12:30:00 PM	40	38	2	2	479	60	450	500	-	1200	60	-	40	0.2
12:35:00 PM	35	38	0		421	53	450	-	-	1200	-	-	0	0.0
12:40:00 PM	43	38	5	5	514	64	450	550	-	1200	134	-	43	0.4
12:45:00 PM	36	38	4		432	54	450	450	-	1200	97	-	36	0.3
12:50:00 PM	27	38	0		327	41	450	-	-	1200	-	-	0	0.0
12:55:00 PM	39	38	1	1	467	58	450	450	-	1200	36	-	39	0.1
1:00:00 PM	39	38	3	1	467	58	450	500	-	1200	72	-	39	0.2
	931	**1,350**		**11**		**1,396**							**197**	**1.33**
	MAX Q (VEH/LN)=		**5**	**MAX RATE (VPH)=**		**514**				**MAX Q (FT/LN)=**	**134**	-	**43**	

(Min=240, Max=900vph/lane)

	INPUT	Suggested										
						Meter Rate =	**450**				Avg Delay/veh (hr)=	0.007
LANES=	**1.5**	2					7.5	vps/lane			**Avg Delay/veh (sec)=**	**24**
Ramp Length=	1200	134	FEET =	41	METERS							
Car Length (ft)=	25	8	METERS									

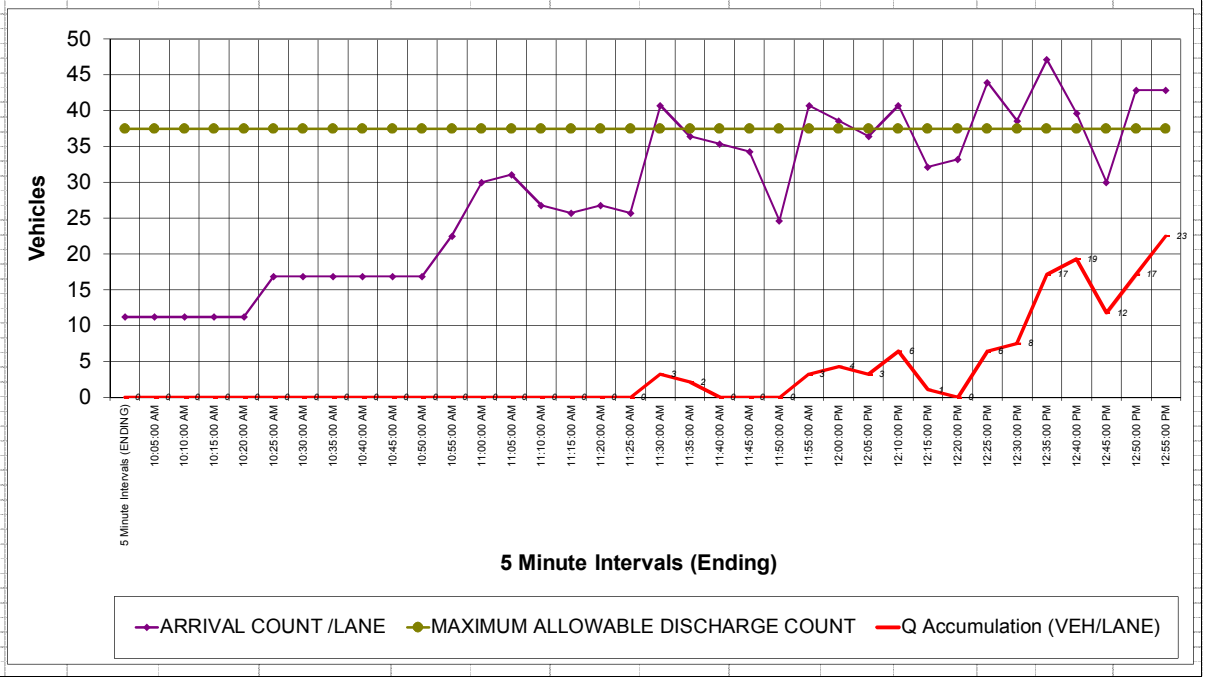


I-15/Clinton Keith Road Interchange Project
Ramp Metering Analysis
WB On_ 2035 Sat Proj

5 Minute Intervals (ENDING)	ARRIVAL COUNT /LANE	MAXIMUM ALLOWABLE DISCHARGE COUNT	Q Accumulation (VEH/LANE)	INSTANTANEOUS ADDITIONAL Q	ARRIVAL RATE/LANE	TOTAL ARRIVAL COUNT	MAXIMUM ALLOWABLE DISCHARGE RATE/LANE	SUGGESTED METER RATE (to prevent Qs)	SUGGESTED METER RATE (to prevent Storage Overflow)	Ramp Storage Provided (ft/Lane)	Queue/Lane (FT/Lane)	Storage Overflow (ft)	Total Vehicles Delayed	Delay (veh-hr)
10:05:00 AM	11	38	0		135	17	450	-	-	1200	-	-	0	0.0
10:10:00 AM	11	38	0		135	17	450	-	-	1200	-	-	0	0.0
10:15:00 AM	11	38	0		135	17	450	-	-	1200	-	-	0	0.0
10:20:00 AM	11	38	0		135	17	450	-	-	1200	-	-	0	0.0
10:25:00 AM	11	38	0		135	17	450	-	-	1200	-	-	0	0.0
10:30:00 AM	17	38	0		203	25	450	-	-	1200	-	-	0	0.0
10:35:00 AM	17	38	0		203	25	450	-	-	1200	-	-	0	0.0
10:40:00 AM	17	38	0		203	25	450	-	-	1200	-	-	0	0.0
10:45:00 AM	17	38	0		203	25	450	-	-	1200	-	-	0	0.0
10:50:00 AM	17	38	0		203	25	450	-	-	1200	-	-	0	0.0
10:55:00 AM	17	38	0		203	25	450	-	-	1200	-	-	0	0.0
11:00:00 AM	23	38	0		270	34	450	-	-	1200	-	-	0	0.0
11:05:00 AM	30	38	0		360	45	450	-	-	1200	-	-	0	0.0
11:10:00 AM	31	38	0		373	47	450	-	-	1200	-	-	0	0.0
11:15:00 AM	27	38	0		321	40	450	-	-	1200	-	-	0	0.0
11:20:00 AM	26	38	0		309	39	450	-	-	1200	-	-	0	0.0
11:25:00 AM	27	38	0		321	40	450	-	-	1200	-	-	0	0.0
11:30:00 AM	26	38	0		309	39	450	-	-	1200	-	-	0	0.0
11:35:00 AM	41	38	3	3	489	61	450	500	-	1200	80	-	41	0.3
11:40:00 AM	36	38	2		437	55	450	450	-	1200	54	-	36	0.2
11:45:00 AM	35	38	0		424	53	450	-	-	1200	-	-	0	0.0
11:50:00 AM	34	38	0		411	51	450	-	-	1200	-	-	0	0.0
11:55:00 AM	25	38	0		296	37	450	-	-	1200	-	-	0	0.0
12:00:00 PM	41	38	3	3	489	61	450	500	-	1200	80	-	41	0.3
12:05:00 PM	39	38	4	1	463	58	450	500	-	1200	107	-	39	0.4
12:10:00 PM	36	38	3		437	55	450	450	-	1200	80	-	36	0.3
12:15:00 PM	41	38	6	3	489	61	450	550	-	1200	161	-	41	0.5
12:20:00 PM	32	38	1		386	48	450	350	-	1200	27	-	32	0.1
12:25:00 PM	33	38	0		399	50	450	-	-	1200	-	-	0	0.0
12:30:00 PM	44	38	6	6	527	66	450	600	-	1200	161	-	44	0.5
12:35:00 PM	39	38	8	1	463	58	450	550	-	1200	188	-	39	0.6
12:40:00 PM	47	38	17	10	566	71	450	750	-	1200	429	-	47	1.4
12:45:00 PM	40	38	19	2	476	59	450	700	-	1200	482	-	40	1.6
12:50:00 PM	30	38	12		360	45	450	500	-	1200	295	-	30	1.0
12:55:00 PM	43	38	17	5	514	64	450	700	-	1200	429	-	43	1.4
1:00:00 PM	43	38	23	5	514	64	450	750	-	1200	563	-	43	1.9
	1,024	1,350		41		1,536							551	10.45
	MAX Q (VEH/LN)=		23	MAX RATE (VPH)=	566					MAX Q (FT/LN)=	563	-	47	

(Min=240, Max=900vph/lane)

	INPUT	Suggested				Meter Rate =	450					
LANES=	1.5	2					7.5	vps/lane		Avg Delay/veh (hr)=	0.019	
Ramp Length=	1200	563	FEET =	171	METERS					Avg Delay/veh (sec)=	68	
Car Length (ft)=	25	8	METERS									



Appendix J: Signal Warrants

Intersection 26

Sierra College Boulevard/SR-193

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Existing Plus Project Conditions – Weekday PM Peak Hour**
Intersection: **Sierra College Boulevard/SR193**

PART A or PART B SATISFIED YES ☒ NO ☐

PART A SATISFIED YES ☐ NO ☒
(All parts 1, 2, and 3 below must be satisfied)

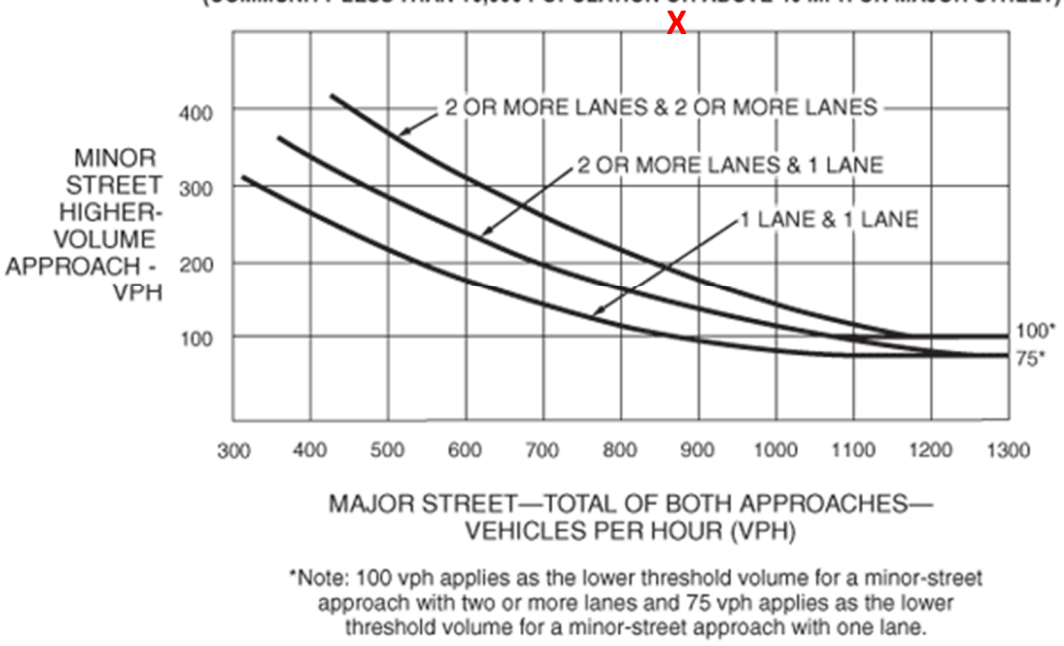
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach; AND — YES ☐ NO ☒
2. The volume on the same minor street approach equals or exceeds 100 vph for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

PART B SATISFIED YES ☒ NO ☐

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	876
Highest Approaches – Minor Street	1	626

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Short Term Plus Project Conditions – Weekday PM Peak Hour**
Intersection: **Sierra College Boulevard/SR193**

PART A or PART B SATISFIED YES ☒ NO ☐

PART A SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

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

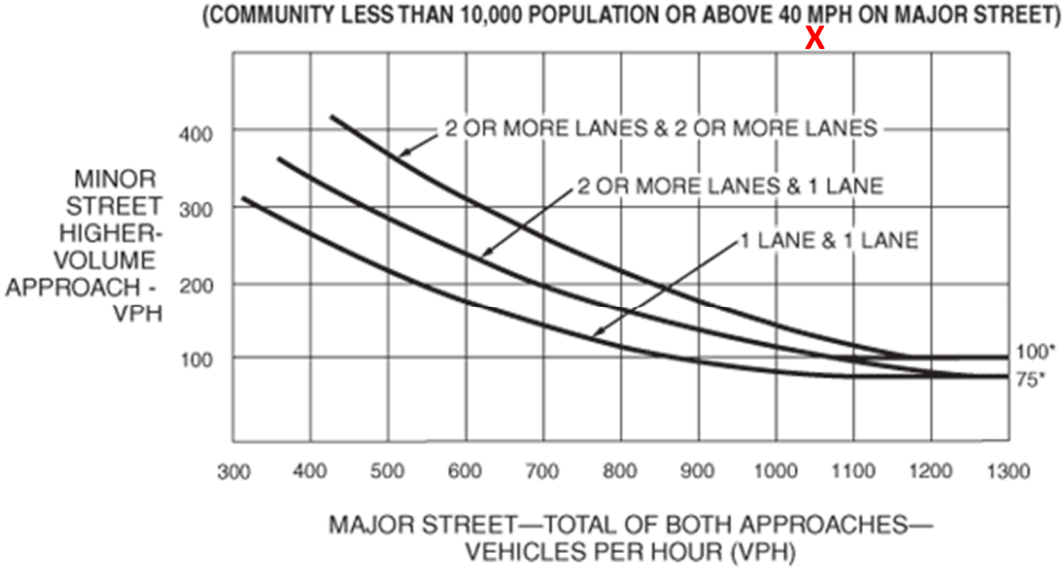
PART B SATISFIED YES ☒ NO ☐

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	1057
Highest Approaches – Minor Street	1	761

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Short Term Plus Project Conditions – Weekday MD Peak Hour**
Intersection: **Sierra College Boulevard/SR193**

PART A or PART B SATISFIED YES ☒ NO ☐

PART A SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

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

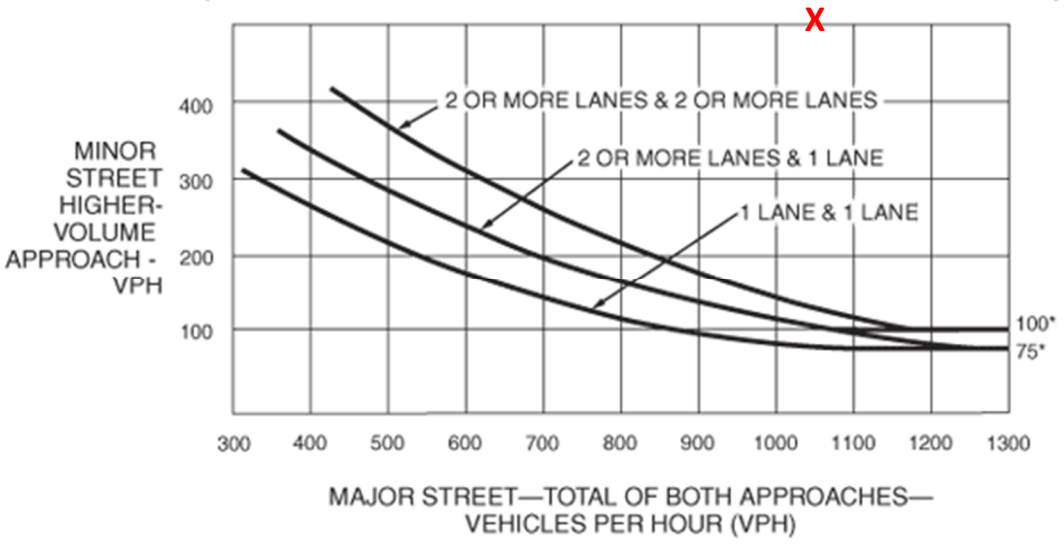
PART B SATISFIED YES ☒ NO ☐

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	1068
Highest Approaches – Minor Street	1	518

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Intersection 27

Sierra College Boulevard/English Colony Way

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Short Term Plus Project Conditions – Weekday PM Peak Hour**
Intersection: **Sierra College Boulevard/English Colony Way**

PART A or PART B SATISFIED YES ☒ NO ☐

PART A SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

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

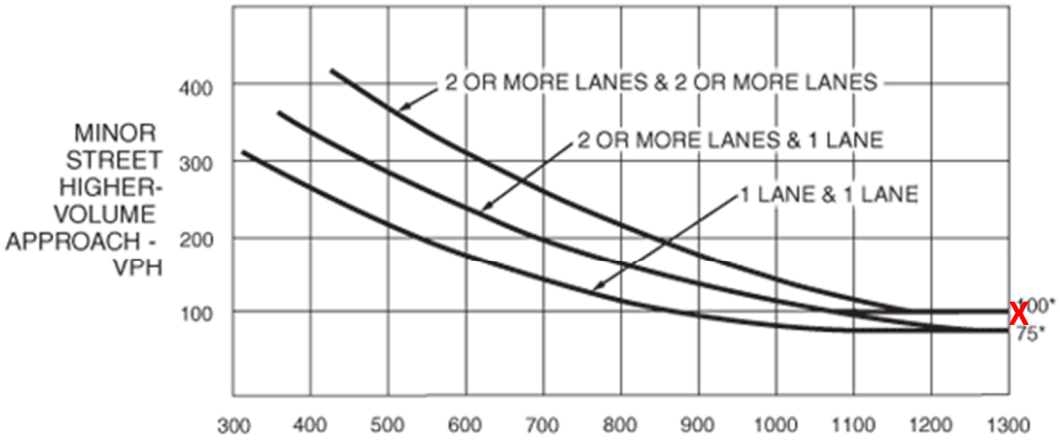
PART B SATISFIED YES ☒ NO ☐

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	1916
Highest Approaches – Minor Street	1	97

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Short Term Plus Project Conditions – Weekday MD Peak Hour**
Intersection: **Sierra College Boulevard/SR193**

PART A or PART B SATISFIED YES ☒ NO ☐

PART A SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

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

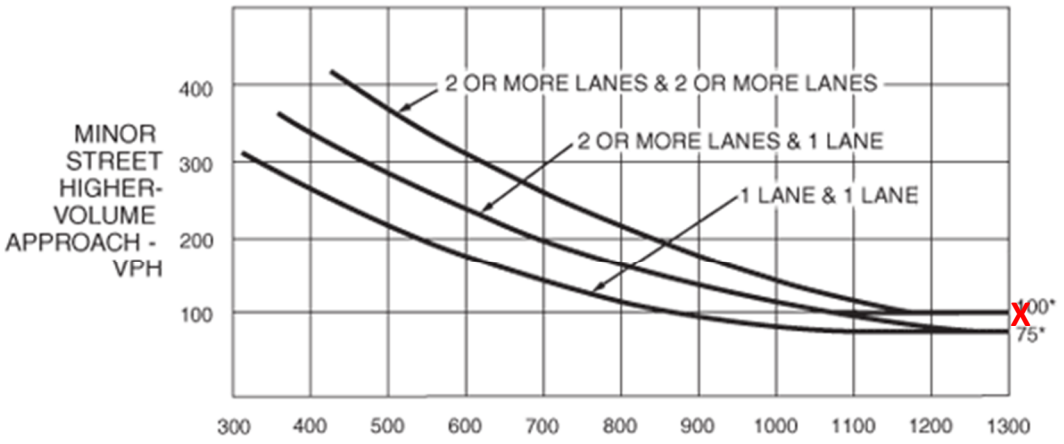
PART B SATISFIED YES ☒ NO ☐

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	1482
Highest Approaches – Minor Street	1	91

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Intersection 28

Sierra College Boulevard/Delmar Avenue

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Existing Plus Project Conditions – Weekday PM Peak Hour**
Intersection: **Sierra College Boulevard/Delmar Avenue**

PART A or PART B SATISFIED YES ☐ NO ☒

PART A SATISFIED YES ☐ NO ☒
(All parts 1, 2, and 3 below must be satisfied)

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

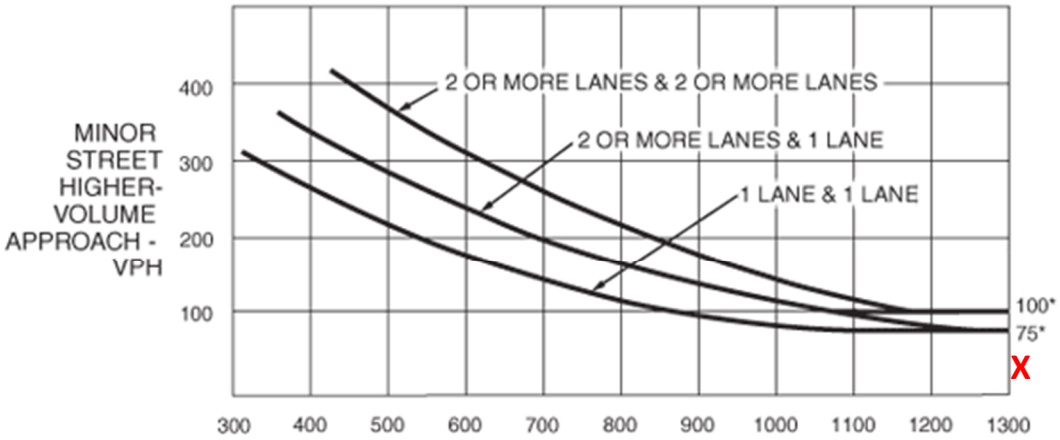
PART B SATISFIED YES ☐ NO ☒

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	1353
Highest Approaches – Minor Street	1	39

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Existing Plus Project Conditions – Weekday MD Peak Hour**

Intersection: **Sierra College Boulevard/Delmar Avenue**

PART A or PART B SATISFIED YES ☐ NO ☒

PART A SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

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

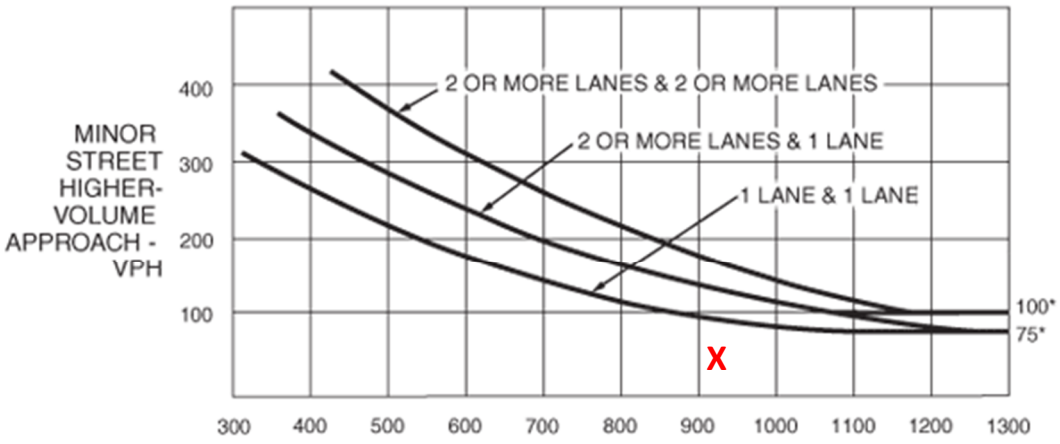
PART B SATISFIED YES ☐ NO ☒

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	925
Highest Approaches – Minor Street	1	50

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Short Term Plus Project Conditions – Weekday AM Peak Hour**
Intersection: **Sierra College Boulevard/Delmar Avenue**

PART A or PART B SATISFIED YES ☐ NO ☒

PART A SATISFIED YES ☐ NO ☒
(All parts 1, 2, and 3 below must be satisfied)

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

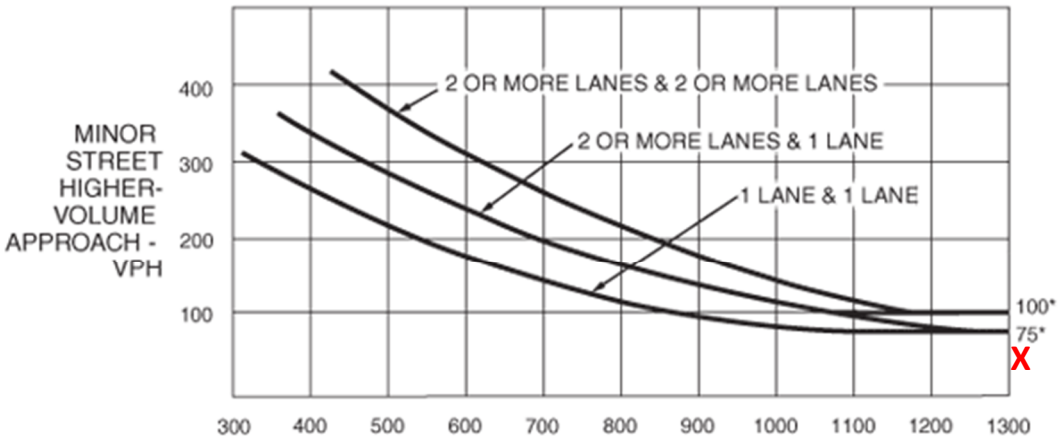
PART B SATISFIED YES ☐ NO ☒

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	1467
Highest Approaches – Minor Street	1	45

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Short Term Plus Project Conditions – Weekday PM Peak Hour**
Intersection: **Sierra College Boulevard/Delmar Avenue**

PART A or PART B SATISFIED YES ☐ NO ☒

PART A SATISFIED YES ☐ NO ☒
(All parts 1, 2, and 3 below must be satisfied)

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

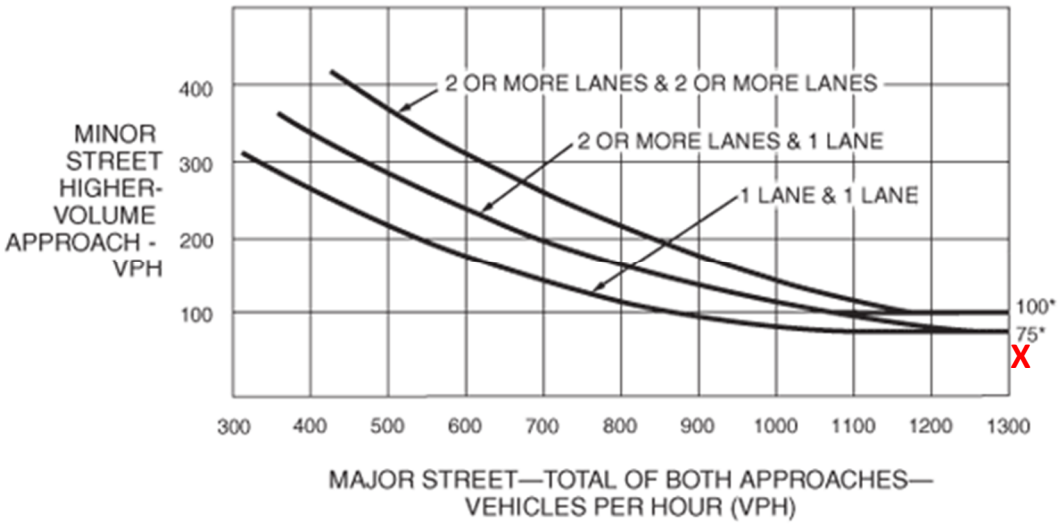
PART B SATISFIED YES ☐ NO ☒

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	1917
Highest Approaches – Minor Street	1	57

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Short Term Plus Project Conditions – Weekday MD Peak Hour**
Intersection: **Sierra College Boulevard/Delmar Avenue**

PART A or PART B SATISFIED YES ☐ NO ☒

PART A SATISFIED YES ☐ NO ☒
(All parts 1, 2, and 3 below must be satisfied)

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

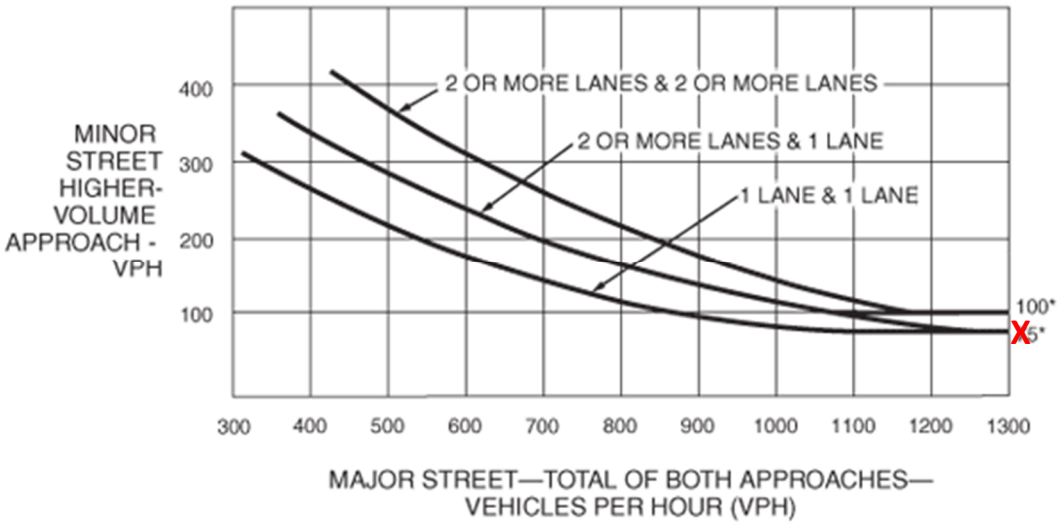
PART B SATISFIED YES ☐ NO ☒

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	1550
Highest Approaches – Minor Street	1	75

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Long Term Plus Project Conditions – Weekday PM Peak Hour**
Intersection: **Sierra College Boulevard/Delmar Avenue**

PART A or PART B SATISFIED YES ☐ NO ☒

PART A SATISFIED YES ☐ NO ☒
(All parts 1, 2, and 3 below must be satisfied)

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

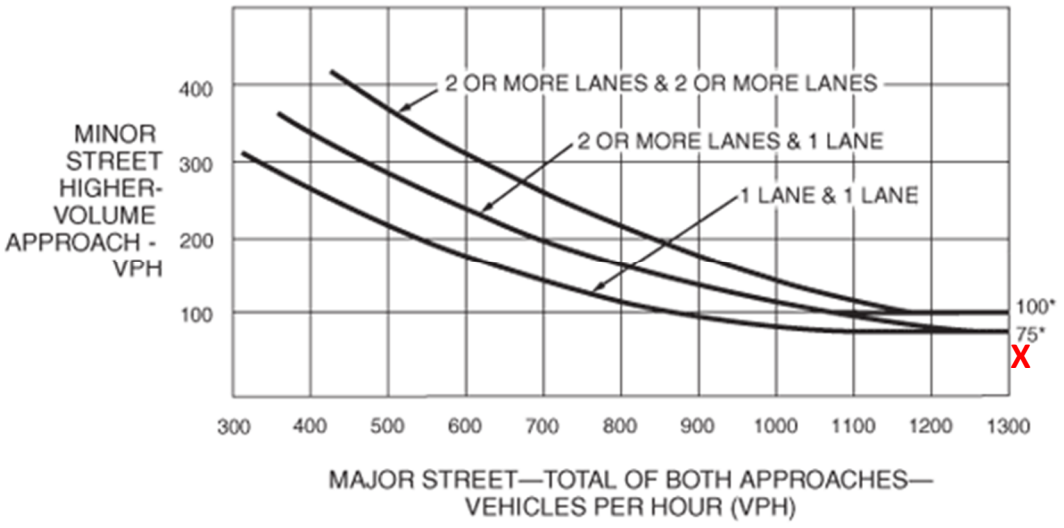
PART B SATISFIED YES ☐ NO ☒

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	3552
Highest Approaches – Minor Street	1	52

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Long Term Plus Project Conditions – Weekday MD Peak Hour**

Intersection: **Sierra College Boulevard/Delmar Avenue**

PART A or PART B SATISFIED YES ☐ NO ☒

PART A SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach; AND — YES ☐ NO ☒

2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND — YES ☐ NO ☒

3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — YES ☒ NO ☐

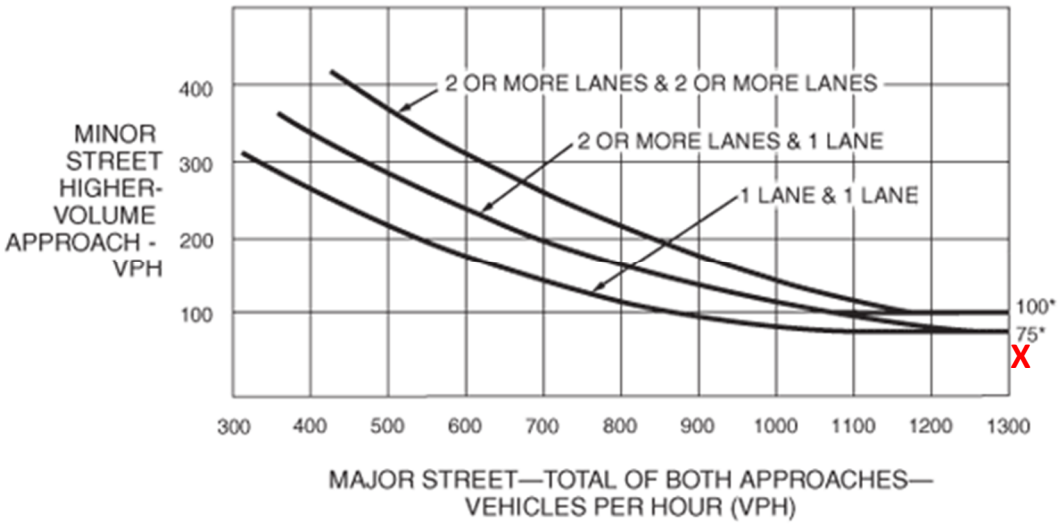
PART B SATISFIED YES ☐ NO ☒

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	2648
Highest Approaches – Minor Street	1	49

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Intersection 29

Taylor Road/English Colony Way

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Short Term Plus Project Conditions – Weekday MD Peak Hour**
Intersection: **Taylor Road/English Colony Way**

PART A or PART B SATISFIED YES ☒ NO ☐

PART A SATISFIED YES ☐ NO ☒
(All parts 1, 2, and 3 below must be satisfied)

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

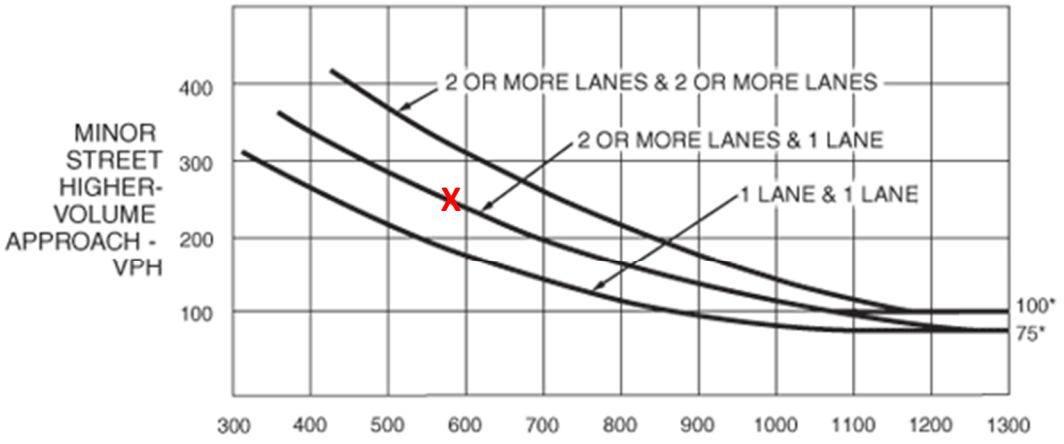
PART B SATISFIED YES ☒ NO ☐

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	580
Highest Approaches – Minor Street	1	246

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Intersection 31

Taylor Road/Penryn Road (South)

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Existing Plus Project Conditions – Weekday AM Peak Hour**
Intersection: **Taylor Road/Penryn Road (South)**

PART A or PART B SATISFIED YES ☒ NO ☐

PART A SATISFIED YES ☐ NO ☒
(All parts 1, 2, and 3 below must be satisfied)

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

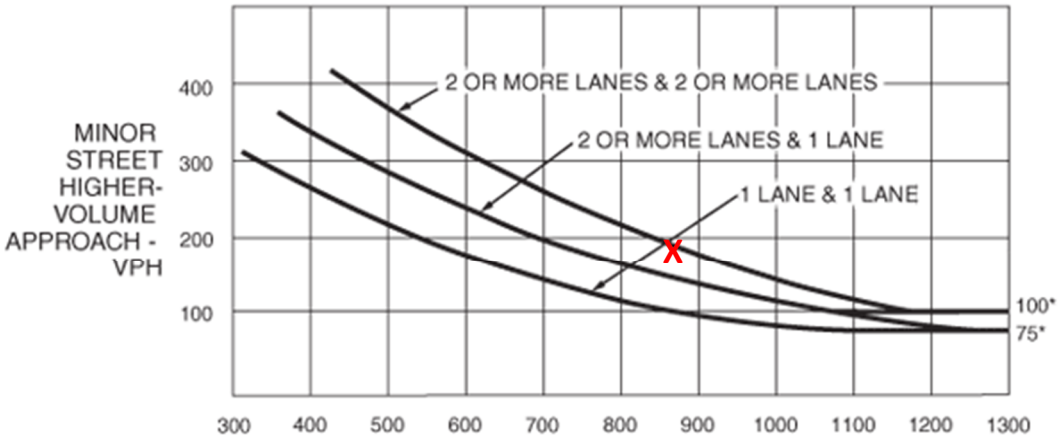
PART B SATISFIED YES ☒ NO ☐

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	874
Highest Approaches – Minor Street	1	193

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Short Term Plus Project Conditions – Weekday AM Peak Hour**
Intersection: **Taylor Road/Penryn Road (South)**

PART A or PART B SATISFIED YES ☒ NO ☐

PART A SATISFIED YES ☐ NO ☒
(All parts 1, 2, and 3 below must be satisfied)

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

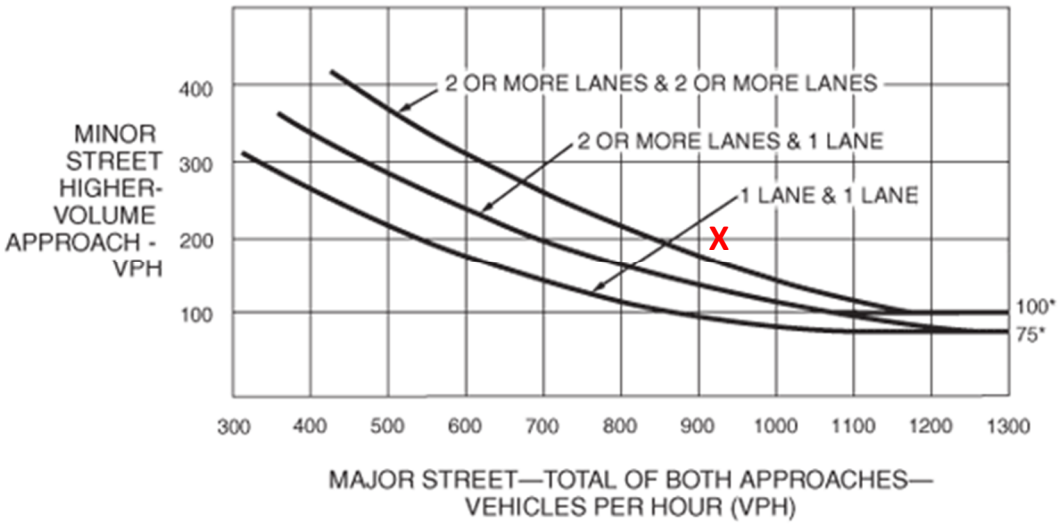
PART B SATISFIED YES ☒ NO ☐

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	924
Highest Approaches – Minor Street	1	200

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Intersection 36

Taylor Road/Webb Street

Traffic Signal Warrants Worksheet

MUTCD Warrant 3: Peak Hour

Scenario: **Existing Plus Project Conditions – Weekday MD Peak Hour**

Intersection: **Taylor Road/Webb Street**

PART A or PART B SATISFIED YES ☐ NO ☒

PART A SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

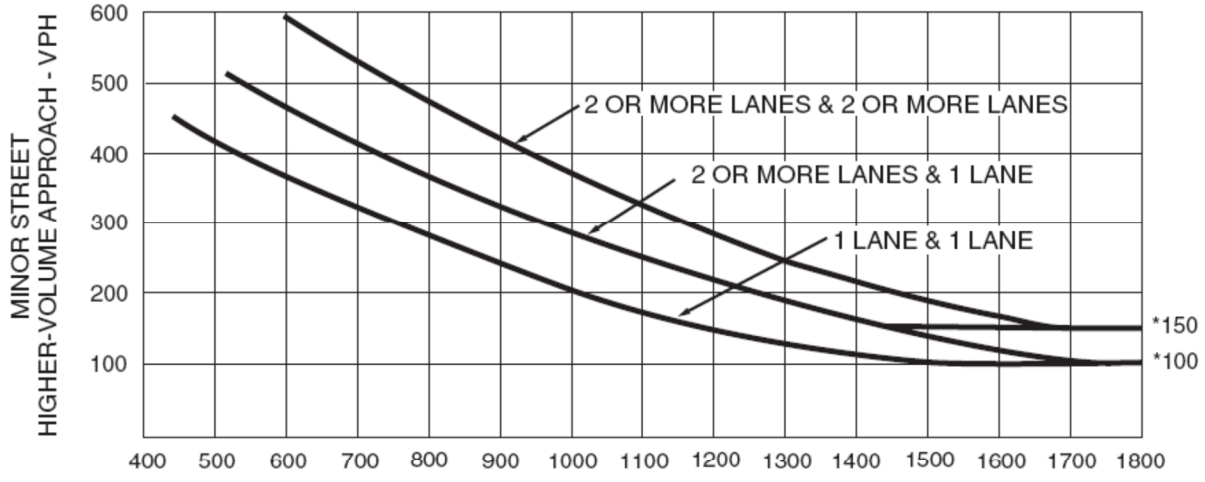
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach; AND — YES ☐ NO ☒
2. The volume on the same minor street approach equals or exceeds 100 vph for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

PART B SATISFIED YES ☐ NO ☒

APPROACH LANES	Lanes	VPH
Both Approaches – Major Street	1	675
Highest Approaches – Minor Street	1	149

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-3.

Figure 4C-3.Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.